

MANAGEMENT'S DISCUSSION & ANALYSIS

The following Management's Discussion and Analysis ("**MD&A**") of financial results should be read in conjunction with the audited Consolidated Financial Statements for the year ended December 31, 2016 of Pengrowth Energy Corporation ("**Pengrowth**" or the "**Corporation**"). This MD&A is based on information available to February 28, 2017.

Pengrowth's fourth quarter and annual results for 2016 are contained within this MD&A.

BUSINESS OF THE CORPORATION

Pengrowth is a Canadian resource company that is engaged in the production, development, exploration and acquisition of oil and natural gas assets. The financial and operating results from property dispositions are included in Pengrowth's results up to the time of closing for each disposition.

FREQUENTLY RECURRING TERMS

Pengrowth uses the following frequently recurring industry terms in this MD&A: "**bbls**" refers to barrels, "**bbl/d**" refers to barrels per day, "**Mbbls**" refers to thousands of barrels, "**boe**" refers to barrels of oil equivalent, "**boe/d**" refers to barrels of oil equivalent per day, "**Mboe**" refers to thousand boe, "**MMboe**" refers to million boe, "**Mcf**" refers to thousand cubic feet, "**Mcf/d**" refers to thousand cubic feet per day, "**MMcf**" refers to million cubic feet, "**Bcf**" refers to billion cubic feet, "**MMBtu**" refers to million British thermal units, "**MMBtu/d**" refers to million British thermal units per day, "**MW**" refers to megawatt, "**MWh**" refers to megawatt hour, "**WTI**" refers to West Texas Intermediate crude oil price, "**WCS**" refers to Western Canadian Select crude oil price, "**AECO**" refers to Alberta natural gas price point, "**NYMEX**" refers to New York Mercantile Exchange, "**NGI Chicago**" refers to Chicago natural gas price point and "**AESO**" refers to Alberta power price point. Bitumen is reported as heavy oil throughout this document. Disclosure provided herein in respect of a boe may be misleading, particularly if used in isolation. A boe conversion ratio of six Mcf of natural gas to one barrel of crude oil equivalent is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead.

ADVISORY REGARDING FORWARD-LOOKING STATEMENTS

This MD&A contains forward-looking statements within the meaning of securities laws, including the "safe harbour" provisions of Canadian securities legislation and the United States *Private Securities Litigation Reform Act of 1995*. Forward-looking information is often, but not always, identified by the use of words such as "anticipate", "believe", "expect", "plan", "intend", "forecast", "target", "project", "guidance", "may", "will", "should", "could", "estimate", "predict" or similar words suggesting future outcomes or language suggesting an outlook. Forward-looking statements in this MD&A include, but are not limited to, statements with respect to: reserves, production, the proportion of production of each product type, production additions from Pengrowth's development program, royalty expenses, operating expenses, tax horizon, deferred income taxes, Asset Retirement Obligations ("**ARO**"), remediation, reclamation and abandonment expenses, clean-up and remediation costs, capital expenditures, development activities, cash General and Administrative Expenses ("**G&A**"), Lindbergh expansion plans, production capacity, anticipated low costs and sustaining capital and proceeds from the disposal of properties. Statements relating to "reserves" are forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions that the reserves described exist in the quantities predicted or estimated and can profitably be produced in the future.

Forward-looking statements and information are based on Pengrowth's current beliefs as well as assumptions made by, and information currently available to, Pengrowth concerning general economic and financial market conditions, anticipated financial performance, business prospects, strategies, regulatory developments, including in respect of taxation, royalty rates and environmental protection, future capital expenditures and the timing thereof, future oil and natural gas commodity prices and differentials between light, medium and heavy oil prices, future oil and natural gas production levels, future exchange rates and interest rates, the amount of future cash dividends paid by Pengrowth, the cost of expanding our property holdings, our ability to obtain labour and equipment in a timely manner to carry out development activities, our ability to market our oil and natural gas successfully to current and new customers including transportation availability, the impact of increasing competition, our ability to obtain financing on acceptable terms and meet financial covenants and our ability to add production and reserves through our development, exploitation and exploration activities. Although management considers these assumptions to be reasonable based on information currently available to it, they may prove to be incorrect.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks that predictions, forecasts, projections and other forward-looking statements will not be achieved. We caution

readers not to place undue reliance on these statements as a number of important factors could cause the actual results to differ materially from the beliefs, plans, objectives, expectations and anticipations, estimates and intentions expressed in such forward-looking statements. These factors include, but are not limited to: the volatility of oil and gas prices; Canadian light and heavy oil differentials; production and development costs and capital expenditures; the imprecision of reserve estimates and estimates of recoverable quantities of oil, natural gas and liquids; Pengrowth's ability to replace and expand oil and gas reserves, ability to produce those reserves; production may be impacted by unforeseen events such as equipment and transportation failures and weather related issues; environmental claims and liabilities; incorrect assessments of value when making acquisitions; increases in debt service charges; the loss of key personnel; the marketability of production; defaults by third party operators; unforeseen title defects; fluctuations in foreign currency and exchange rates; inadequate insurance coverage; counterparty risk; compliance with environmental laws and regulations; actions by government authorities, including the imposition or reassessment of taxes including changes in income taxes and royalty laws; Pengrowth's ability to access external sources of debt and equity capital; new International Financial Reporting Standards ("**IFRS**") and the implementation of greenhouse gas emissions legislation and the impact of carbon taxes. Further information regarding these factors may be found under the heading "Business Risks" herein and under "Risk Factors" in Pengrowth's most recent Annual Information Form ("**AIF**"), and in Pengrowth's most recent audited annual Consolidated Financial Statements, management information circular, quarterly reports, material change reports and news releases. Copies of Pengrowth's public filings are available on SEDAR at www.sedar.com and EDGAR at www.sec.gov.

Pengrowth cautions that the foregoing list of factors that may affect future results is not exhaustive. When relying on our forward-looking statements to make decisions with respect to Pengrowth, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Furthermore, the forward-looking statements contained in this MD&A are made as of the date of this MD&A and Pengrowth does not undertake any obligation to update publicly or to revise any of the included forward-looking statements, except as required by law. The forward-looking statements in this document are provided for the limited purpose of enabling current and potential investors to evaluate an investment in Pengrowth. Readers are cautioned that such statements may not be appropriate, and should not be used for other purposes.

The forward-looking statements contained in this MD&A are expressly qualified by this cautionary statement.

CRITICAL ACCOUNTING ESTIMATES

The audited Consolidated Financial Statements are prepared in accordance with IFRS. The preparation of audited Consolidated Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingencies at the date of the audited Consolidated Financial Statements and revenues and expenses during the reporting period. Actual results could differ from those estimated.

In particular, information about significant areas of estimation uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the audited Consolidated Financial Statements is described below:

Estimating oil and gas reserves

Pengrowth engages a qualified, independent oil and gas reserves evaluator to perform an estimation of the Corporation's oil and gas reserves at least annually and contingent resources on an ad hoc basis. Reserves form the basis for the calculation of depletion charges, while oil and gas reserves and contingent resources are used in the assessment of impairment of goodwill and oil and gas assets. Reserves and contingent resources are estimated using the reserve definitions and guidelines prescribed by National Instrument 51-101 ("**NI 51-101**") and the Canadian Oil and Gas Evaluation Handbook ("**COGEH**").

Proved plus probable reserves are defined as the "best estimate" of quantities of oil, natural gas and related substances estimated to be commercially recoverable from known accumulations, from a given date forward, based on drilling, geological, geophysical and engineering data, the use of established technology and specified economic conditions. It is equally likely that the actual remaining quantities recovered will be greater than or less than the sum of the estimated proved plus probable reserves. The estimates are made using all available geological and reservoir data as well as historical production data. Estimates are reviewed and revised as appropriate. Revisions occur as a result of changes in prices, costs, fiscal regimes and reservoir performance or a change in Pengrowth's plans with respect to future development or operating practices.

Contingent resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies. Contingencies may include factors such as economic, legal, environmental, political and regulatory matters or a lack of markets. Contingent resources do not constitute, and should not be confused with, reserves.

Determination of Cash Generating Units ("CGUs")

CGUs are the smallest group of assets that generate cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets. The recoverability of development and production asset carrying values are assessed at the CGU level. Determination of what constitutes a CGU is subject to management's judgment. The asset composition of a CGU can directly impact the recoverability of the assets included therein. In assessing the recoverability of oil and gas properties, each CGU's carrying value is compared to its recoverable amount, defined as the greater of fair value less costs to sell and value in use.

Asset Retirement Obligations

Pengrowth estimates obligations under environmental regulations in respect of decommissioning and site restoration. These obligations are determined based on the expected present value of expenses required in the process of plugging and abandoning wells, dismantling of wellheads, production and transportation facilities and restoration of producing areas in accordance with relevant legislation, discounted from the date when expenses are expected to be incurred. Most of the abandonment of Pengrowth's wells is estimated to take place far in the future. Therefore, changes in estimated timing of future expenses, estimated logistics of performing abandonment work, the inflation assumption, and the discount rate used to present value future expenses could have a significant effect on the carrying amount of the decommissioning provision. Pengrowth uses the 30 year Canadian Government long term bond rate to estimate its ARO discount rate.

Pengrowth's ARO risk free discount rate was 2.3 percent at December 31, 2016 remaining unchanged from December 31, 2015.

Impairment testing

CGUs that have associated goodwill are tested for impairment at least annually and CGUs with or without associated goodwill are tested when there is an indication of impairment. The test is based on estimates of proved plus probable reserves, production rates, oil and natural gas prices, future costs, discount rate and other relevant assumptions. Undeveloped land, contingent resources and infrastructure may also be considered. The impairment assessment of goodwill is based on the estimated recoverable amount of the related CGUs. By their nature, these estimates are subject to measurement uncertainty and may impact the Consolidated Financial Statements of future periods. There was no remaining goodwill balance at December 31, 2016 or December 31, 2015.

Fair value of risk management contracts

Pengrowth records risk management contracts at fair value with changes in fair value recognized in the Consolidated Statements of Income (Loss). The fair values are determined using observable market data and external counterparty information.

Valuation of trade and other receivables, and prepayments to suppliers

Management estimates the likelihood of the collection of trade and other receivables and recovery of prepayments based on an analysis of individual accounts. Factors taken into consideration include the aging of receivables in comparison with the credit terms allowed to customers and the financial position and collection history with the customer. Should actual collections be less than estimates, Pengrowth would be required to record an additional expense.

COMPARATIVE FIGURES

Certain comparative figures have been restated to conform to the current period presentation.

ADDITIONAL GAAP MEASURE

Funds Flow from Operations

Pengrowth uses funds flow from operations, a Generally Accepted Accounting Principles ("GAAP") measure that is not defined under IFRS. Management believes that in addition to cash provided by operations, funds flow from operations as reported as a subtotal in the Consolidated Statements of Cash Flow is a useful supplemental measure as it provides an indication of the funds generated by Pengrowth's principal business activities prior to consideration of changes in

working capital and remediation expenditures, but after interest and financing charges are deducted. Pengrowth considers this to be a key performance measure as it represents its ability to generate sufficient cash flow to fund capital investments and repay debt.

Funds flow from operations per share is calculated as funds flow from operations divided by weighted average number of shares outstanding for the period.

NON-GAAP FINANCIAL MEASURES

This MD&A refers to certain financial measures that are not determined in accordance with IFRS. These measures do not have standardized meanings and may not be comparable to similar measures presented by other oil and gas companies.

Operating netbacks do not have standardized meanings prescribed by GAAP. Pengrowth's operating netbacks have been calculated by taking oil and gas sales, royalties, operating and transportation expenses as well as realized commodity risk management balances, as applicable, directly from the Consolidated Statements of Income (Loss) and dividing by production for the period. See the section of this MD&A entitled Operating Netbacks for a discussion of the calculation.

Management monitors Pengrowth's capital structure using non-GAAP financial metrics as per the Financial Resources and Liquidity section of this MD&A. These metrics are: senior debt before working capital to the trailing twelve months Earnings Before Interest, Taxes, Depletion, Depreciation, Amortization, Accretion, and other non-cash items ("**Adjusted EBITDA**"); total debt before working capital to Adjusted EBITDA; Adjusted EBITDA to interest expense; and senior debt before working capital as a percentage of total book capitalization. For the purposes of covenant calculations only, convertible debentures, letters of credit and finance leases are incorporated in senior and total debt before working capital for covenant purposes. Total book capitalization is the sum of senior debt before working capital for covenant purposes and shareholders' equity.

Management believes that, in addition to net income (loss), adjusted net income (loss) is a useful supplemental measure as it reflects the underlying performance of Pengrowth's business activities by excluding the after-tax effect of non-cash changes in fair value of commodity and power risk management contracts as well as unrealized foreign exchange gains and losses that may significantly impact net income (loss) from period to period.

Payout ratio is a term used to evaluate financial flexibility and the capacity to fund dividends. Payout ratio is defined on a percentage basis as dividends declared divided by funds flow from operations.

Management believes that segregating G&A expenses into cash and non-cash expenses is useful to the reader, as non-cash expenses only affect net income (loss) but not funds flow from operations. Cash and non-cash G&A expenses per boe are calculated by dividing cash and non-cash G&A expenses by production for the period.

OPERATIONAL MEASURES

The reserves and production in this MD&A refer to company-interest reserves or production that is Pengrowth's working interest share of production or reserves prior to the deduction of Crown and other royalties plus any Pengrowth-owned royalty interest in production or reserves at the wellhead, in accordance with Canadian industry practice. Company-interest is more fully described in the AIF.

When converting natural gas to equivalent barrels of oil within this MD&A, Pengrowth uses the industry standard of six Mcf to one boe. Barrels of oil equivalent may be misleading, particularly if used in isolation; a conversion ratio of six Mcf of natural gas to one boe is based on an energy equivalency conversion method primarily applicable to the burner tip and does not represent a value equivalency at the wellhead.

Recycle ratio is a measure of value creation for each dollar spent. This measure is calculated as operating netback per boe divided by Finding and Development ("**F&D**") cost per boe and can also be calculated using Finding, Development & Acquisition ("**FD&A**") cost per boe. Recycle ratio can be calculated including or excluding Future Development Costs ("**FDC**") and commodity risk management.

Steam Oil Ratio ("**SOR**") measures the rate of steam required to produce a barrel of bitumen. This can be expressed either as an average or at a point in time.

These measures do not have standardized meanings and may not be comparable to similar measures presented by other oil and gas companies.

CURRENCY

All amounts are stated in Canadian dollars unless otherwise specified.

2016 ACTUAL RESULTS VS. 2016 GUIDANCE

The following table provides a summary of Pengrowth's actual results compared to 2016 Guidance:

	2016 Actual	2016 Guidance ⁽¹⁾
Production (boe/d)	57,058	56,000 - 58,000
Capital expenditures (\$ millions)	64.4	60 - 70
Royalty expenses (% of sales)	7.1	7 - 8
Operating expenses (\$/boe)	13.19	13.50 - 14.25
Cash G&A expenses (\$/boe)	3.37	2.75 - 3.25

⁽¹⁾ Per boe estimates based on high and low ends of production Guidance.

2016 average daily production of 57,058 boe/d was at the mid-point of 2016 Guidance.

2016 capital expenditures amounted to \$64.4 million which was within 2016 Guidance.

2016 royalty expenses as a percentage of sales were within 2016 Guidance.

2016 operating expenses per boe were slightly below 2016 Guidance, driven by Pengrowth's continued focus on cost reduction efforts.

2016 cash G&A expenses per boe were slightly above 2016 Guidance primarily due to the mark-to-market impact of the cash-settled Long Term Incentive Plans ("LTIP"). This was driven by the increase in Pengrowth's share price.

2017 GUIDANCE

The following table provides Pengrowth's previously announced 2017 Guidance:

	2017 Guidance ^{(1) (2)}
Production (boe/d)	50,000 - 52,000
Capital expenditures (\$ millions)	125
Funds flow from operations (\$ millions)	195
Royalty expenses (% of sales)	9.0
Operating expenses (\$/boe)	13.25 - 13.75
Cash G&A expenses (\$/boe)	3.50 - 4.00

⁽¹⁾ Per boe estimates based on high and low ends of production Guidance.

⁽²⁾ Based on WTI price of U.S.\$55/bbl, AECO natural gas price of Cdn\$3.25/Mcf and an exchange rate of Cdn\$1 = U.S.\$0.74.

FINANCIAL HIGHLIGHTS

(\$ millions except per boe amounts)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Production (boe/d)	54,354	55,137	67,934	57,058	71,409
Capital expenditures	28.4	15.3	19.1	64.4	183.8
Funds flow from operations ^{(1) (2) (3) (4)}	111.7	122.7	114.2	429.7	459.3
Operating netback (\$/boe) ⁽⁵⁾	30.82	32.13	25.07	28.87	24.97
Adjusted net income (loss)	45.3	18.6	(463.4)	48.0	(811.4)
Net income (loss)	(92.4)	(52.9)	(468.6)	(293.7)	(1,093.1)

⁽¹⁾ Funds flow from operations for the three and twelve months ended December 31, 2016 include \$35.6 million and \$77.2 million, respectively, of gains related to the early settlement of commodity risk management contracts.

⁽²⁾ Funds flow from operations for the three months ended September 30, 2016 includes \$41.6 million of gains related to the early settlement of commodity risk management contracts.

⁽³⁾ Funds flow from operations for the three and twelve months ended December 31, 2016 exclude \$47.0 million of gains related to the early settlement of foreign exchange swap contracts as this was considered a financing activity.

⁽⁴⁾ Funds flow from operations for the three and twelve months ended December 31, 2015 exclude \$0.2 million and \$94.1 million, respectively, of gains related to the 2015 settlement of foreign exchange swap contracts as these were considered financing activities.

⁽⁵⁾ Includes realized commodity risk management.

During 2016, Pengrowth early settled commodity risk management contracts for total proceeds of \$77.2 million of which \$41.6 million was early settled in the third quarter of 2016 and \$35.6 million was early settled in the fourth quarter of 2016. See Commodity Prices section of this MD&A for more information.

During the fourth quarter of 2016, Pengrowth also monetized gains on U.S.\$920.0 million of foreign exchange swap contracts for proceeds of Cdn\$47.0 million. Pengrowth subsequently entered into new swap contracts and at December 31, 2016 held the amount of U.S.\$920.0 million of swap contracts at a weighted average rate of U.S.\$0.75 per Cdn \$1. These proceeds, in addition to funds flow exceeding capital expenditures, brought Pengrowth's cash balance to \$286.7 million at December 31, 2016 with no amounts drawn on its \$1.0 billion credit facility. See Foreign Currency Gains (Losses) section of this MD&A for more information.

Funds Flow from Operations

(\$ millions)	Q3/16 vs. Q4/16 % Change		Q4/15 vs. Q4/16 % Change		2015 vs. 2016 % Change	
Funds flow from operations for comparative period ^{(1) (2)}	Q3/16	122.7	Q4/15	114.2	2015	459.3
Increase (decrease) due to:						
Volumes	(2.5)	(2)	(33.6)	(29)	(157.2)	(34)
Prices including differentials	26.3	21	35.7	31	(100.5)	(22)
Realized commodity risk management ^{(1) (3)}	(27.2)	(22)	(20.5)	(18)	58.7	13
Other income including sulphur	(0.2)	—	(2.0)	(2)	(6.9)	(2)
Royalties	(4.1)	(3)	5.0	5	49.5	11
Expenses:						
Operating	(1.4)	(1)	11.4	10	96.7	21
Cash G&A	(3.0)	(3)	(2.0)	(2)	16.6	4
Interest & financing	—	—	1.6	1	(1.6)	—
Other - including transportation	1.1	1	1.9	2	15.1	3
Net change	(11.0)	(9)	(2.5)	(2)	(29.6)	(6)
Funds flow from operations ^{(3) (4)}	Q4/16	111.7	Q4/16	111.7	2016	429.7

⁽¹⁾ Funds flow from operations for the three months ended September 30, 2016 includes \$41.6 million of gains related to the early settlement of commodity risk management contracts.

⁽²⁾ Funds flow from operations for the three and twelve months ended December 31, 2015 exclude \$0.2 million and \$94.1 million, respectively, of gains related to the 2015 settlement of foreign exchange swap contracts as these were considered financing activities.

⁽³⁾ Funds flow from operations for the three and twelve months ended December 31, 2016 include \$35.6 million and \$77.2 million, respectively, of gains related to the early settlement of commodity risk management contracts.

⁽⁴⁾ Funds flow from operations for the three and twelve months ended December 31, 2016 exclude \$47.0 million of gains related to the early settlement of foreign exchange swap contracts as this was considered a financing activity.

Pengrowth's fourth quarter of 2016 funds flow from operations decreased 9 percent from the third quarter of 2016 driven by lower realized commodity risk management gains, combined with higher royalties, cash G&A and lower

volumes. This was partly offset by improved crude oil and natural gas commodity prices. Fourth quarter of 2016 realized commodity risk management gains were \$27.2 million lower compared to the third quarter of 2016 primarily due to improved benchmark prices.

Fourth quarter 2016 funds flow from operations decreased 2 percent compared to the fourth quarter 2015 primarily due to a decrease in volumes combined with a decrease in realized commodity risk management gains. This was largely offset by an increase in commodity prices, lower operating expenses and lower royalties. Full year 2016 funds flow from operations decreased 6 percent compared to the same period in 2015 due to lower volumes and commodity prices, largely offset by lower operating expenses combined with increased realized commodity risk management gains, lower royalties and lower cash G&A.

Net Income (Loss)

Pengrowth recorded a net loss of \$92.4 million in the fourth quarter of 2016, which was \$39.5 million higher than the net loss of \$52.9 million in the third quarter of 2016. This was primarily due to a decrease in fair value of commodity risk management contracts as a result of the forward price curve increase on the remaining risk management contracts, and the unrealized foreign exchange loss from the translation of the U.S. dollar denominated term debt driven by the weakening of the Canadian dollar, relative to the third quarter of 2016.

Fourth quarter and full year 2016 net losses were lower by \$376.2 million and \$799.4 million, respectively, compared to the same periods last year mainly due to the absence of the impairment charges recorded in 2015.

Adjusted Net Income (Loss)

Pengrowth reports adjusted net income (loss) to remove the effect of unrealized gains and losses.

The following table provides a reconciliation of net income (loss) to adjusted net income (loss):

(\$ millions)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Net income (loss)	(92.4)	(52.9)	(468.6)	(293.7)	(1,093.1)
Exclude non-cash items from net income (loss):					
Change in fair value of commodity and power risk management contracts	(104.4)	(84.8)	35.5	(422.8)	(49.4)
Unrealized foreign exchange gain (loss) ⁽¹⁾	(61.6)	(9.7)	(25.0)	(33.4)	(235.2)
Tax effect on non-cash items above	28.3	23.0	(15.7)	114.5	2.9
Total excluded	(137.7)	(71.5)	(5.2)	(341.7)	(281.7)
Adjusted net income (loss)	45.3	18.6	(463.4)	48.0	(811.4)

⁽¹⁾ Relates to the foreign denominated debt net of associated foreign exchange risk management contracts.

The following table represents a continuity of adjusted net income (loss):

(\$ millions)	Q3/16 vs. Q4/16		Q4/15 vs. Q4/16		2015 vs. 2016	
	Q3/16	18.6	Q4/15	(463.4)	2015	(811.4)
Adjusted net income (loss) for comparative period						
Funds flow from operations increase (decrease)		(11.0)		(2.5)		(29.6)
DD&A and accretion expense (increase) decrease		12.4		29.9		107.4
Impairment charges decrease		—		518.5		1,000.5
Realized foreign exchange gain on settled FX swaps increase (decrease)		47.0		46.8		(47.1)
Loss on property dispositions (increase) decrease		(4.0)		65.0		71.0
Other		(7.4)		(6.5)		(1.9)
Estimated tax on above including tax rate change		(10.3)		(142.5)		(240.9)
Net change		26.7		508.7		859.4
Adjusted net income (loss)	Q4/16	45.3	Q4/16	45.3	2016	48.0

Pengrowth posted adjusted net income of \$45.3 million in the fourth quarter of 2016 compared to the adjusted net income of \$18.6 million in the third quarter of 2016. The \$26.7 million improvement was primarily due to the Cdn\$47.0

million early settlement of U.S. dollar swap contracts and lower DD&A expense, partly offset by lower funds flow from operations.

Fourth quarter of 2016 adjusted net income of \$45.3 million represented a \$508.7 million improvement compared to the same period last year primarily due to the absence of the non-cash impairment charges of \$518.5 million (approximately \$414 million after-tax) recorded in the fourth quarter of 2015.

Full year 2016 adjusted net income of \$48.0 million represented a \$859.4 million improvement from the same period last year, primarily driven by the absence of the non-cash impairment charges of \$1,000.5 million (approximately \$789 million after-tax) recorded in 2015, lower DD&A expense and decrease in loss on property dispositions. This was partly offset by a lower realized foreign exchange gain from the early settlement of U.S. dollar swap contracts and lower funds flow from operations year over year.

Sensitivity of Funds Flow from Operations to Commodity Prices

The following table illustrates the sensitivity of funds flow from operations to increases in commodity prices after taking into account Pengrowth's commodity risk management contracts and outlook on oil differentials. See Note 17 to the December 31, 2016 audited Consolidated Financial Statements for more information on Pengrowth's risk management contracts. The calculated impact on revenue/cash flow is only applicable within a limited range of the change indicated and is based on production guidance levels contained herein.

COMMODITY PRICE ENVIRONMENT ⁽¹⁾		Assumption	Change	Estimated Impact on 12 Month Funds Flow (Cdn\$ millions)
West Texas Intermediate Oil ⁽²⁾	U.S.\$/bbl	\$53.32	\$1.00	
Light oil				4.8
Heavy oil				7.3
Oil risk management ⁽³⁾				(7.4)
NGLs				2.9
Net impact of U.S.\$1/bbl increase in WTI				7.6
Oil differentials				
Light oil	U.S.\$/bbl	\$3.37	\$1.00	(4.8)
Heavy oil	U.S.\$/bbl	\$15.02	\$1.00	(7.3)
Physical oil differential risk management				6.2
Net impact of U.S.\$1/bbl increase in differentials				(5.9)
AECO Natural Gas ⁽²⁾	Cdn\$/Mcf	\$3.24	\$0.10	
Natural gas				4.0
Natural gas risk management ⁽³⁾				(0.2)
Net impact of Cdn\$0.10/Mcf increase in AECO				3.8

⁽¹⁾ Calculations are performed independently and are not indicative of actual results when multiple variables change at the same time. The exchange rate at January 25, 2017 of Cdn\$1 = U.S.\$0.74 was used for the 12 month period.

⁽²⁾ Commodity price is based on an estimation of the 12 month forward price curve at January 25, 2017 and does not include the impact of commodity risk management contracts.

⁽³⁾ Includes commodity risk management contracts as at December 31, 2016.

FINANCIAL RESOURCES AND LIQUIDITY

Capital Resources

Cash On Hand

Pengrowth's cash balance was \$286.7 million at December 31, 2016 resulting from surplus funds flow, including proceeds from risk management contracts, over capital spending. During 2016, Pengrowth early settled the majority of its 2017 to 2019 commodity risk management contracts for total proceeds of \$77.2 million. In addition, Pengrowth early settled swap contracts that fixed the foreign exchange rate on its U.S. dollar denominated term debt for proceeds of Cdn\$47.0 million in the fourth quarter of 2016.

Subsequent to December 31, 2016, Pengrowth entered into an agreement for the sale of a 4.0 percent gross overriding royalty ("**GORR**") interest on its Lindbergh thermal property and certain seismic assets for \$250 million cash consideration. Cash on hand in early January 2017, including the GORR and seismic proceeds, totaled approximately \$537 million. See Note 22 to the December 31, 2016 audited Consolidated Financial Statements for additional information regarding this transaction which closed in January of 2017.

Debt Maturities

The Company has two scheduled debt maturities in 2017. The convertible debentures in the amount of \$126.6 million mature on March 31, 2017, and one tranche of senior unsecured notes is due on July 26, 2017 in the amount of U.S. \$400.0 million. As announced on February 21, 2017, Pengrowth plans to use its cash on hand to repay the \$126.6 million convertible debenture on March 31, 2017 and early repay U.S.\$300.0 million of the U.S.\$400.0 million senior unsecured notes on March 30, 2017. Following these payments, Pengrowth's pro forma debt will be reduced to approximately \$1.1 billion assuming February 21, 2017 exchange rates.

Credit Facilities

Pengrowth has in place a \$1.0 billion revolving, committed credit facility ("**Credit Facility**") supported by a syndicate of eleven international and domestic banks in addition to a \$50 million demand facility ("**Demand Facility**") issued by a large Canadian financial institution. The Credit Facility was renewed in March 2015 and matures on March 31, 2019. Pengrowth can access the unutilized portion of the Credit Facility, provided it remains in compliance with all financial covenants.

Pengrowth's extendible revolving term Credit Facility had a \$nil balance at December 31, 2016 (December 31, 2015 - \$104.0 million) and \$44.9 million of outstanding letters of credit (December 31, 2015 - \$21.6 million). When utilized, the Credit Facility appears on the Consolidated Balance Sheets as long term debt.

Pengrowth's Demand Facility had a \$nil balance at December 31, 2016 (December 31, 2015 - \$2.5 million) and \$6.4 million of outstanding letters of credit (December 31, 2015 - \$1.4 million). When utilized, together with any overdraft amounts, the Demand Facility appears on the Consolidated Balance Sheets as a current liability in bank indebtedness, as applicable.

Together, these two facilities provided Pengrowth with up to \$1.0 billion of combined notional credit capacity at December 31, 2016. Use of the remaining credit capacity is subject to compliance with all financial covenants.

Financial Covenants

Pengrowth's senior unsecured notes and credit facilities are subject to a number of covenants, all of which were met at all relevant times during the preceding twelve months and at December 31, 2016. Details of the calculations follow in the Covenant Calculations table of this section.

The Corporation's ratio of trailing twelve month senior debt to Adjusted EBITDA increased to 3.1 times at December 31, 2016 from 2.9 times at December 31, 2015 as the impact of a decrease in Adjusted EBITDA outweighed the decrease in senior debt for covenant purposes at December 31, 2016. The Corporation's senior debt before working capital to total book capitalization was at 54.5 percent at December 31, 2016, up from 51.6 percent at December 31, 2015. The covenant calculation does not allow cash on hand to be netted against debt. Netting the \$286.7 million of cash on hand would have resulted in the senior debt before working capital to total book capitalization ratio to be 50.0 percent at December 31, 2016, and 51.6 percent at December 31, 2015. For the reporting period of December 31, 2016, Pengrowth received a waiver from the holders of its senior unsecured notes for the senior debt before working capital as a percent of total book capitalization ratio. On February 9, 2017 the senior debt before working capital to total book capitalization covenant in the term Credit Facility was permanently removed effective December 31, 2016. Pengrowth's senior debt is expected to be reduced to approximately \$1.1 billion by March 31, 2017 with the \$126.6 million repayment of the convertible debentures and U.S.\$300.0 million of senior unsecured notes using cash on hand.

After the above debt repayments, Pengrowth anticipates it will remain in compliance with its covenants through the end of 2018. In order to comply with certain financial covenants in its senior unsecured notes and term credit facilities through 2017 and 2018, Pengrowth has run a scenario, that accesses the capital markets before the end of 2017, and includes an improvement in realizations for oil and natural gas. Pengrowth is also continuing with its efforts to sell various assets and to use the proceeds to reduce debt as an alternative way to remain in compliance with its debt covenants. The Company remains confident in its ability to complete additional transactions to further advance its debt reduction objectives.

However, if the Company is unable to obtain permanent waivers or relaxation of its debt covenants and is not able to remain in compliance with them, the senior unsecured notes and credit facilities may become due on demand and the undrawn portion of the credit facilities would no longer be available to the Company. Should a significant reduction in equity, such as from impairment charges or other losses occur in the future, the senior debt to total book capitalization covenant ratio of 55 percent in the senior unsecured notes could be exceeded. All loan agreements can be found on SEDAR at www.sedar.com filed under "Other" or "Material Document" and on EDGAR at www.sec.gov.

Covenant Calculations

Twelve month trailing actual covenants ⁽¹⁾ :		Dec 31, 2016	Dec 31, 2015	Limit
Senior debt before working capital to Adjusted EBITDA	=A+D	3.1	2.9	< 3.5 times
Total debt before working capital to Adjusted EBITDA	=A+D	3.1	2.9	< 4.0 times
Senior debt before working capital as a percentage of total book capitalization	=A+B	54.5%	51.6%	< 55% ⁽²⁾
Adjusted EBITDA to interest expense	=D+C	5.5	6.2	> 4 times

As at:

(\$ millions)		Dec 31, 2016	Dec 31, 2015	Change
Credit facilities ⁽³⁾		—	107.7	(107.7)
Senior unsecured notes ⁽⁴⁾		1,560.7	1,611.8	(51.1)
Convertible debentures ^{(4) (5)}		126.6	137.0	(10.4)
Total debt before working capital ⁽⁴⁾		1,687.3	1,856.5	(169.2)
Finance leases ⁽⁵⁾		37.9	4.3	33.6
Letters of credit ⁽⁵⁾		51.3	23.0	28.3
Senior debt before working capital for covenant purposes ^{(4) (5)}	A	1,776.5	1,883.8	(107.3)

Total book capitalization ⁽⁶⁾	B	3,261.5	3,648.8	(387.3)
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Twelve months trailing:

(\$ millions)				
Net income (loss)		(293.7)	(1,093.1)	799.4
Add (deduct):				
Interest and financing charges	C	105.5	103.9	1.6
Deferred income tax expense (recovery)		(93.4)	(222.7)	129.3
Depletion, depreciation, amortization and accretion		365.0	472.4	(107.4)
EBITDA		83.4	(739.5)	822.9
Add (deduct) other items:				
Impairment		—	1,000.5	(1,000.5)
(Gain) loss on disposition of properties		27.1	98.1	(71.0)
Other non-cash items ⁽⁷⁾		471.1	284.3	186.8
Adjusted EBITDA	D	581.6	643.4	(61.8)

⁽¹⁾ The actual covenants presented in the table reflect those closest to the limits. Calculations for each financial covenant are based on specific definitions within the agreements and contain adjustments, pursuant to the agreements, some of which cannot be readily replicated by referring to Pengrowth's Consolidated Financial Statements.

⁽²⁾ A waiver was obtained for this covenant from the holders of its senior unsecured notes for the reporting period of December 31, 2016. This covenant was permanently removed from the Credit Facility effective December 31, 2016. Netting the \$286.7 million of cash on hand would have resulted in the senior debt before working capital to total book capitalization ratio to be 50.0 percent at December 31, 2016, and 51.6 percent at December 31, 2015.

⁽³⁾ Includes bank indebtedness, as applicable.

⁽⁴⁾ Includes current and long term portions, as applicable.

⁽⁵⁾ For the purposes of covenant calculations only, convertible debentures, letters of credit and finance leases are incorporated in senior and total debt before working capital for covenant purposes.

⁽⁶⁾ Total book capitalization includes senior debt before working capital for covenant purposes plus Shareholders' Equity per the Consolidated Balance Sheets.

⁽⁷⁾ Includes the impact of changes in fair value of commodity risk management contracts, unrealized foreign exchange on long term debt, and other adjustments pursuant to the actual covenant calculations.

Total Debt Before Working Capital Continuity

(Cdn\$ millions)	December 31, 2015 vs. December 31, 2016
Total debt before working capital at December 31, 2015 ⁽¹⁾	1,856.5
Increase (decrease) due to:	
Foreign exchange impact of the stronger Canadian dollar on U.S. denominated debt	(46.1)
Foreign exchange impact of the stronger Canadian dollar on U.K. denominated debt	(5.8)
Credit facilities paid down in 2016	(107.7)
Convertible debenture paid down in 2016	(10.2)
Issue cost and premium amortization	0.6
Total increase (decrease)	(169.2)
Total debt before working capital at December 31, 2016 ⁽¹⁾	1,687.3

⁽¹⁾ Includes credit facilities, current and long term portions of senior unsecured notes and convertible debentures, as applicable. Excludes letters of credit and finance leases.

As of December 31, 2016, Pengrowth's senior unsecured notes denominated in foreign currencies comprised 90 percent of the total debt before working capital. Each long term note is governed by a Note Purchase Agreement. These notes have fixed coupon rates and maturity dates between 2017 and 2024.

At December 31, 2016, total debt before working capital decreased \$169.2 million compared to December 31, 2015, as per the table above. As the majority of Pengrowth's debt is denominated in U.S. dollars and U.K. pound sterling, the stronger period end Canadian dollar drove down reported senior debt before working capital relative to December 31, 2015. Pengrowth manages its foreign exchange exposure through swap contracts with the fair value reflected as a net liability of Cdn\$5.2 million on the Consolidated Balance Sheets at December 31, 2016. This fair value is not reflected in the above table.

Despite lower commodity prices year over year, drawings under the credit facilities decreased from \$107.7 million at December 31, 2015 to \$nil at December 31, 2016 as surplus funds flow and proceeds from divestment activities were used to pay down the outstanding Credit Facility balance.

In February 2016, Pengrowth commenced a Normal Course Issuer Bid ("**NCIB**") to purchase up to 10 percent or \$13.7 million of face value of convertible debentures. Through December 31, 2016, Pengrowth repurchased \$10.2 million of principal amount of convertible debentures. The NCIB expired on February 28, 2017. See Note 8 to the December 31, 2016 audited Consolidated Financial Statements for more information.

Off-Balance Sheet Financing

Pengrowth does not have any off-balance sheet financing arrangements.

RESULTS OF OPERATIONS

All volumes, wells and spending amounts stated below reflect Pengrowth's net working interest for both operated and non-operated properties unless otherwise stated.

CAPITAL EXPENDITURES

(\$ millions)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Drilling, completions and facilities					
Lindbergh ⁽¹⁾	12.1	4.3	6.3	21.2	87.2
Conventional	1.4	1.2	0.4	4.1	42.2
Total drilling, completions and facilities	13.5	5.5	6.7	25.3	129.4
Land & seismic acquisitions ⁽²⁾	0.9	(0.5)	—	(0.2)	0.6
Maintenance capital	14.1	9.9	11.9	38.6	51.1
Development capital	28.5	14.9	18.6	63.7	181.1
Other capital	(0.1)	0.4	0.5	0.7	2.7
Capital expenditures	28.4	15.3	19.1	64.4	183.8

⁽¹⁾ Excludes capitalized interest, see Interest and Financing Charges section of the MD&A.

⁽²⁾ Seismic acquisitions are net of seismic sales revenue.

Pengrowth continued with its strategy of deferring significant development capital expenditures until a sustained recovery in commodity prices is evident. Fourth quarter of 2016 capital expenditures were \$28.4 million with \$13.0 million spent at Lindbergh primarily focusing on Phase 1 optimization and maintenance in addition to Phase 2 engineering work. The remainder was spent on safety, integrity and maintenance at Pengrowth's conventional properties.

Full year 2016 capital expenditures were \$64.4 million with \$23.3 million spent at Lindbergh and the remainder spent on turnaround, safety, integrity, maintenance and enhancement activities at Pengrowth's conventional properties.

Focus Areas

Lindbergh

Pengrowth's 100 percent owned and operated Lindbergh thermal project is located in the Cold Lake area of Alberta and encompasses 42.5 sections of land. Cost advantages of the Lindbergh resource include enhanced bitumen quality and flow characteristics resulting in an efficient steam oil ratio which translates into a lower operating cost structure and higher netbacks compared to many other thermal projects. The project recycles on site in excess of 95 percent of water used in operations. Commerciality of the first phase of Lindbergh was declared as of April 1, 2015, and the pilot well pairs were redirected to the commercial facility on April 11, 2015. The Lindbergh project is expected to be developed in stages with the ultimate potential for bitumen production of 40,000 to 50,000 bbl/d. This is expected to be low cost production with low sustaining capital requirements and long reserve life.

The Environmental Protection and Enhancement Act ("EPEA") application for the Lindbergh expansion to 30,000 bbl/d was approved on May 30, 2016. The EPEA approval allows Pengrowth to continue to produce Phase 1 above the 12,500 bbl/d nameplate capacity, and provides the opportunity for incremental optimization spending to increase production to approximately 18,000 bbl/d. Engineering work continues on the second phase which, once constructed and commissioned, would allow Pengrowth to take total production to a nameplate capacity of 30,000 bbl/d. Pengrowth submitted a scheme amendment and an EPEA update in late February 2017, to seek approval to increase the maximum bitumen rate at the Phase 2 development project to 40,000 bbl/d. Pengrowth also has a 50 percent working interest in the Selina oil sands property, located approximately 30 kilometers northeast of Lindbergh. An EPEA application was filed in December 2016 for a thermal project designed for an annual production rate of 12,500 bbl/d of bitumen.

Conventional Oil and Gas

Pengrowth's significant conventional oil and gas portfolio includes a large, contiguous land base in the Greater Olds/Garrington area, encompassing over 480 gross (221 net) sections of land, with opportunities in the Cardium, Viking and Mannville sands as well as in the Mississippian carbonate section. The existing, extensive gathering and processing infrastructure provides an efficient platform for continued development in this area. Pengrowth also controls large light oil accumulations in the Swan Hills area of northern Alberta with low production decline rates and strong cash flow, as well as Montney natural gas opportunities at Groundbirch and Bernadet, with potentially significant liquid yields at Bernadet, in north eastern British Columbia.

Conventional development continues to be curtailed, with the fourth quarter of 2016 capital spending of \$15.4 million focused on safety, maintenance and integrity of existing assets combined with minor partner operated activity.

2017 Capital Program

Pengrowth's 2017 interim capital program of \$125 million represents a conservative capital program given potential asset divestitures and the Company's focus on improving its financial flexibility ahead of its scheduled debt maturities in 2017.

Pengrowth allocated approximately \$80 million of the 2017 interim capital program towards development and maintenance activities at Lindbergh. Approximately \$60 million of the Lindbergh capital is for the optimization of Phase 1 production, which is expected to increase production to approximately 18,000 bbl/d by the end of 2017. The optimization program includes the first new drilling since commercial production started in April of 2015. In 2017, Pengrowth plans to drill 7 new well pairs, 2 infill wells along with expanding the associated facility infrastructure. Approximately \$10 million of the Lindbergh capital is for ongoing engineering and design of the Phase 2 expansion. The remaining \$10 million of Lindbergh capital is for maintenance activities on Phase 1, including a planned plant turnaround in the third quarter of 2017.

The 2017 interim capital program also includes approximately \$42 million for safety, asset integrity and maintenance programs on Pengrowth's conventional assets. This capital is expected to be directed towards maintenance of infrastructure and integrity initiatives to support ongoing operations across Pengrowth's conventional asset portfolio. The 2017 program currently has no development capital for conventional drilling.

RESERVES AND PERFORMANCE MEASURES

Reserves - Company Interest at Forecast Prices

Reserves Summary ⁽¹⁾ (MMboe except as noted)	2016	2015	2014
Proved Reserves			
Additions + revisions for the year	60.7	(6.1)	32.9
Net dispositions for the year	(6.1)	(25.8)	(3.2)
Total proved reserves at period end	285.8	252.1	310.1
Proved reserve replacement ratio excluding net dispositions	290%	(23)%	123%
Proved reserve replacement ratio including net dispositions	261%	(122)%	111 %
Proved reserve future development costs (\$ millions)	1,980	1,597	1,944
Proved plus Probable Reserves (P+P)			
Additions + revisions for the year	76.2	73.6	112.4
Net dispositions for the year	(15.9)	(35.8)	(5.6)
Total proved plus probable reserves at period end	608.5	569.1	557.4
P+P reserve replacement ratio excluding net dispositions	365%	282 %	420%
P+P reserve replacement ratio including net dispositions	289%	145 %	399%
P+P reserve future development costs (\$ millions)	5,234	5,165	4,957
Total production (MMboe)	20.9	26.1	26.8

⁽¹⁾ Based on GLJ year-end pricing and prepared in accordance with NI 51-101.

Pengrowth's 2016 total proved reserves and total proved plus probable reserves increased 13 percent and 7 percent, respectively, from 2015. The increase of 60.7 MMboe of proved reserves and 76.2 MMboe of proved plus probable reserves were primarily due to performance revisions and drilling additions relating to undeveloped locations at Lindbergh as well as future development in non-thermal properties. The 2016 reserve additions resulted in a reserve replacement ratio of 365 percent for total proved plus probable reserves excluding net dispositions, and 289 percent including net dispositions.

Further details of Pengrowth's 2016 year end reserves, F&D and FD&A calculations are provided in its AIF which is filed on SEDAR (www.sedar.com) or the 40-F filed on EDGAR (www.sec.gov).

Performance Measures

These measures do not have standardized meanings and may not be comparable to similar measures presented by other oil and gas companies.

Finding & Development Costs & Recycle Ratio	2016	2015	2014	3 year weighted average
Excluding Net Dispositions (F&D)				
Excluding changes in FDC				
F&D costs per boe - (P+P)	\$ 0.84	\$ 2.47	\$ 8.03	\$ 4.38
Recycle ratio ⁽¹⁾	34.4	10.1	3.2	6.0
Recycle ratio excluding commodity risk management ⁽¹⁾	12.4	5.0	3.6	4.1
Including changes in FDC				
F&D costs per boe - (P+P)	\$ 3.38	\$ 7.12	\$ 22.33	\$ 12.55
Recycle ratio ⁽¹⁾	8.5	3.5	1.1	2.1
Recycle ratio excluding commodity risk management ⁽¹⁾	3.1	1.7	1.3	1.4

⁽¹⁾ Recycle ratio is calculated as operating netback per boe divided by F&D costs per boe based on proved plus probable reserves.

2016 total proved plus probable F&D cost, including changes in FDC, was \$3.38/boe, decreasing significantly from previous years, despite a net increase in FDC with the reserve additions. This reduction was a result of adding relatively low cost bitumen, Montney and conventional natural gas and liquid reserves combined with reduced forecasts of FDC impacted by drilling cost efficiencies.

Recycle ratio is an important performance measure in assessing investment profitability and provides a comparison to our competitors. Pengrowth's operating results and capital program in 2016 yielded a recycle ratio, excluding net dispositions and including changes in FDC, of 8.5 on a proved plus probable basis. The improvement in the 2016 recycle ratio from prior years is primarily due to reduced F&D costs and an increase in the 2016 netback compared to 2015 and 2014 despite lower commodity prices. This can be attributed to Pengrowth's commodity risk management program which mitigated lower commodity prices in 2015 and 2016 in addition to lower royalties and Pengrowth's ongoing efforts to reduce operating costs.

PRODUCTION

	Three months ended						Twelve months ended			
Daily production	Dec 31, 2016	% of total	Sept 30, 2016	% of total	Dec 31, 2015	% of total	Dec 31, 2016	% of total	Dec 31, 2015	% of total
Light oil (bbls)	10,597	19	11,221	20	14,153	21	11,736	21	16,329	23
Heavy oil (bbls)	15,209	28	15,190	28	18,089	27	15,585	27	15,914	22
Natural gas liquids (bbls)	7,976	15	7,139	13	8,205	12	7,763	14	8,619	12
Natural gas (Mcf)	123,434	38	129,520	39	164,922	40	131,847	38	183,276	43
Total boe per day	54,354		55,137		67,934		57,058		71,409	

Fourth quarter of 2016 average daily production decreased 1 percent compared to the third quarter of 2016 mainly due to integrity work and maintenance repair related outages as well as natural declines. These declines were mostly offset by a Sable Offshore Energy Project ("SOEP") condensate shipment which occurred in December 2016.

Fourth quarter and full year 2016 average daily production decreased 20 percent compared to the same periods in 2015 primarily due to the absence of volumes from divested properties, natural declines and maintenance related downtime. Full year 2016 declines were partly offset by the inclusion of 12 months of Lindbergh commercial production in 2016 vs. 9 months in 2015.

Light Oil

Fourth quarter of 2016 light oil production decreased 6 percent compared to the third quarter of 2016 primarily due to maintenance integrity work at Judy Creek and natural declines. This was partly offset by higher production at Carson Creek following turnaround activity in the third quarter of 2016.

Fourth quarter and full year 2016 light oil production decreased 25 percent and 28 percent, respectively, compared to the same periods last year mainly due to planned integrity and maintenance work, natural declines, a turnaround at Judy Creek and property dispositions.

Heavy Oil

Fourth quarter of 2016 heavy oil production was essentially unchanged from the third quarter of 2016.

Fourth quarter and full year 2016 heavy oil production decreased 16 percent and 2 percent, respectively, compared to the same periods last year, primarily due to property divestments. On a full year basis, the impact of these dispositions was mostly offset by the inclusion of 12 months of Lindbergh commercial production in 2016 vs. 9 months in 2015.

NGLs

Fourth quarter of 2016 NGL production increased 12 percent compared to the third quarter of 2016 mainly due to a SOEP condensate shipment in December 2016.

Fourth quarter and full year 2016 NGL production decreased 3 percent and 10 percent, respectively, compared to the same periods last year mainly due to the impact of scheduled repair and maintenance activities and natural declines.

Natural Gas

Fourth quarter of 2016 natural gas production decreased 5 percent compared to the third quarter of 2016 primarily due to natural declines, partly offset by the recovery of production after a planned maintenance outage at SOEP and a turnaround at Carson Creek in the third quarter of 2016.

Fourth quarter and full year 2016 natural gas production decreased 25 percent and 28 percent, respectively, compared to the same periods last year. This was primarily due to property divestments and natural declines in addition to turnaround and maintenance related outages. Approximately 1,000 boe/d of uneconomic natural gas production remained shut-in during 2016.

COMMODITY PRICES

Oil and Liquids Prices Excluding Realized Commodity Risk Management

(U.S.\$/bbl)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Average exchange rate (Cdn\$1 = U.S.\$)	0.75	0.77	0.75	0.75	0.78
Average Benchmark Prices					
WTI oil	49.33	44.94	42.17	43.37	48.76
WCS differential to WTI	(14.33)	(13.49)	(14.48)	(13.84)	(13.51)
WCS heavy oil	35.00	31.45	27.69	29.53	35.25

(Cdn\$/bbl)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Average Benchmark Prices					
WTI oil	65.78	58.65	56.21	57.32	62.11
Edmonton par light oil	61.62	54.80	52.93	53.05	57.20
WCS heavy oil	46.67	41.04	36.86	38.96	44.79
Differentials to WTI					
Edmonton par	(4.16)	(3.85)	(3.28)	(4.27)	(4.91)
WCS heavy oil	(19.11)	(17.61)	(19.35)	(18.36)	(17.32)
Average Sales Prices					
Light oil	59.59	52.50	49.00	50.24	54.06
Heavy oil	37.88	34.13	28.72	30.19	37.75
Natural gas liquids	30.80	21.62	21.86	22.60	24.29

Fourth quarter of 2016 saw continued improvement in the energy markets with U.S. dollar WTI crude oil prices rising from the third quarter. WTI averaged U.S.\$49.33/bbl during the fourth quarter of 2016, up 10 percent from the third quarter of 2016 and up 17 percent compared to the same period last year. Full year 2016 average U.S. dollar WTI crude oil prices were 11 percent lower than in 2015, reflecting the weakness in prices earlier in 2016.

For Canadian producers, exchange rates, location and quality differentials as well as transportation bottlenecks are all factors that influence the Canadian crude oil prices received. Movements in the Canadian dollar versus the U.S. dollar influence the relative Canadian equivalent prices that Canadian companies realize. Quality differentials and

transportation bottlenecks result in light oil and heavy oil differentials relative to the U.S. based WTI benchmark, leading to Canadian producers receiving discounted prices for their product. After taking into consideration the changes in the underlying benchmark prices and the changes in foreign exchange between the Canadian and US dollars, the Canadian equivalent pricing for light and heavy crude oils moved in line with the price differentials and the underlying benchmark.

Fourth quarter of 2016 light oil differential widened by 8 percent and 27 percent from the third quarter of 2016 and the fourth quarter of 2015, respectively. Full year 2016 light oil differential narrowed 13 percent compared to the same period last year as a result of a supply and demand fundamentals. Fourth quarter of 2016 heavy oil differential widened by 9 percent from the third quarter of 2016 and full year 2016 heavy oil differential widened by 6 percent, compared to the same periods last year, reflecting seasonal changes in demand.

Pengrowth's fourth quarter of 2016 average sales price for light oil and heavy oil increased 14 percent and 11 percent, respectively, compared to the third quarter of 2016, and increased 22 percent and 32 percent, respectively, compared to the fourth quarter of 2015. These changes are consistent with the improvement in benchmark pricing throughout the year.

Full year 2016 light oil and heavy oil average sales prices were down 7 percent and 20 percent, respectively, compared to 2015. Weaker benchmark prices partly offset by the narrowing of the light oil differential were the primary drivers behind the lower average sales prices for light oil. For heavy oil, weaker benchmark prices coupled with a widening of the heavy oil differential were the drivers behind the change.

Sales of natural gas liquids (NGLs) primarily comprise propane, butane, pentane and condensate. Price realizations for NGLs in the fourth quarter of 2016 increased by 42 percent and 41 percent, compared to the third quarter of 2016 and fourth quarter of 2015, respectively. The main drivers behind the higher average sales price for NGLs in the fourth quarter of 2016 was the condensate shipment at SOEP and improvements in propane, butane and pentane prices. Full year 2016 average NGL sales prices reflected fourth quarter improvements in the benchmark prices, but were also impacted by an over-supply of product earlier in 2016 which resulted in the average sales prices being 7 percent lower compared to 2015.

Natural Gas Prices Excluding Realized Commodity Risk Management

(Cdn\$)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Average Benchmark Prices					
NYMEX gas (per MMBtu)	4.24	3.64	2.98	3.38	3.35
AECO monthly gas (per MMBtu)	2.81	2.20	2.65	2.09	2.77
Differential to NYMEX					
AECO differential (per MMBtu)	(1.43)	(1.44)	(0.33)	(1.29)	(0.58)
Average Sales Price					
Natural gas (per Mcf) ⁽¹⁾	3.03	2.37	2.50	2.25	3.00

⁽¹⁾ Average sales prices are recorded in Mcf to reflect the volumetric reporting standard for Pengrowth's natural gas.

The U.S. based NYMEX natural gas price continued to recover during the fourth quarter of 2016, as an unusually warm summer impacted the supply/demand fundamentals in the U.S. Fourth quarter of 2016 NYMEX gas price averaged Cdn\$4.24/MMBtu, an increase of 16 percent compared to the third quarter of 2016. Fourth quarter of 2016 NYMEX natural gas price increased 42 percent compared to the same period last year, while full year 2016 NYMEX price remained relatively unchanged compared to 2015.

Similarly, Western Canadian natural gas prices increased in the fourth quarter of 2016 with the AECO monthly gas price averaging Cdn\$2.81/MMBtu, representing increases of 28 percent and 6 percent compared to the third quarter of 2016 and fourth quarter of 2015, respectively. The stronger demand and decreased supply across the continent were the primary drivers behind the increase. However, AECO prices in the first half of 2016 were under pressure, negatively impacting the full year AECO price which was down 25 percent compared to the same period in 2015. AECO differentials widened in the second half of 2016 offsetting some of the higher prices experienced in the rest of North America. Transportation issues and lack of take-away capacity from the major producing centers in British Columbia, coupled with record inventories resulted in significant discounts for Western Canadian natural gas compared to U.S. natural gas.

The price realized by the Company for natural gas production from Western Canada is primarily determined by the AECO benchmark and based on Canadian fundamentals. Pengrowth also sells its natural gas at several different sales points in addition to AECO monthly, which can result in a significant variance between Pengrowth's realized natural gas price and the benchmark prices in any given period.

Pengrowth's fourth quarter of 2016 average sales price for natural gas, before the impacts of commodity risk management activities, increased 28 percent from the third quarter of 2016, and 21 percent from the fourth quarter of 2015, consistent with the improvement in benchmark pricing. Full year 2016 average sale price for natural gas was lower by 25 percent, compared to 2015, primarily due to weaker natural gas benchmark prices coupled with the widening of the AECO price differential compared to NYMEX in the second half of 2016.

Total Average Sales Prices

(\$/boe)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Average sales price	33.62	28.45	26.56	26.86	31.41
Other production income including sulphur	0.22	0.25	0.50	0.25	0.47
Total oil and gas sales price	33.84	28.70	27.06	27.11	31.88
Realized commodity risk management gain (loss) ⁽¹⁾⁽²⁾	15.44	20.58	15.63	18.47	12.55
Total oil and gas sales price including realized commodity risk management	49.28	49.28	42.69	45.58	44.43

⁽¹⁾ Fourth quarter and full year 2016 include \$7.12/boe and \$3.70/boe, respectively, of gains related to the early settlement of commodity risk management contracts.

⁽²⁾ Third quarter of 2016 includes \$8.20/boe of gains related to the early settlement of commodity risk management contracts.

Pengrowth's fourth quarter of 2016 average realized sales price, before the effects of commodity risk management activities, of \$33.62/boe increased 18 percent from the third quarter of 2016 and 27 percent from the fourth quarter of 2015, reflecting the increase in crude oil and natural gas benchmark prices. Full year 2016 average realized sales price, before the effects of commodity risk management activities, of \$26.86/boe declined 14 percent compared to the same period last year as the decline in benchmark prices reached their lowest points in the first quarter of 2016 outweighing the rise in prices seen in the second half of 2016.

Realized Commodity Risk Management Gains (Losses)

(\$ millions except per unit amounts)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Oil risk management gain (loss) ⁽¹⁾⁽²⁾	47.3	75.8	88.2	289.2	294.4
\$/bbl ⁽¹⁾⁽²⁾⁽³⁾	19.92	31.20	29.73	28.92	25.02
Natural gas risk management gain (loss) ⁽⁴⁾⁽⁵⁾	29.9	28.6	9.5	96.5	32.6
\$/Mcf ⁽⁴⁾⁽⁵⁾	2.63	2.40	0.63	2.00	0.49
Total realized commodity risk management gain (loss) ⁽⁶⁾⁽⁷⁾	77.2	104.4	97.7	385.7	327.0
\$/boe ⁽⁶⁾⁽⁷⁾	15.44	20.58	15.63	18.47	12.55
(\$ millions)					
Gains from commodity risk management contracts - early settled	35.6	41.6	—	77.2	—
Gains from commodity risk management contracts - settled on contract date	41.6	62.8	97.7	308.5	327.0
Total realized commodity risk management gain (loss)	77.2	104.4	97.7	385.7	327.0

⁽¹⁾ Fourth quarter and full year 2016 include \$11.5 million or \$4.84/bbl and \$35.8 million or \$3.58/bbl, respectively, of gains related to the early settlement of oil risk management contracts.

⁽²⁾ Third quarter of 2016 includes \$24.3 million or \$10.00/bbl of gains related to the early settlement of oil risk management contracts.

⁽³⁾ Includes light and heavy oil.

⁽⁴⁾ Fourth quarter and full year 2016 include \$24.1 million or \$2.12/Mcf and \$41.4 million or \$0.86/Mcf, respectively, of gains related to the early settlement of natural gas risk management contracts.

⁽⁵⁾ Third quarter of 2016 includes \$17.3 million or \$1.45/Mcf of gains related to the early settlement of natural gas risk management contracts.

⁽⁶⁾ Fourth quarter and full year 2016 includes \$35.6 million or \$7.12/boe and \$77.2 million or \$3.70/boe, respectively, of gains related to the early settlement of commodity risk management contracts.

⁽⁷⁾ Third quarter of 2016 includes \$41.6 million or \$8.20/boe of gains related to the early settlement of commodity risk management contracts.

Pengrowth has an active commodity risk management program which primarily uses forward price swaps to manage the exposure to commodity price fluctuations and provide a measure of stability and predictability to cash flows. Changes in the business environment are regularly monitored by management and the Board of Directors to ensure that Pengrowth's active risk management program is adequate and aligned with the long term strategic goals of the Corporation. In addition to forward price swaps, Pengrowth also manages a part of its exposure to Canadian oil price differentials using physical delivery contracts and foreign exchange swap contracts.

Realized commodity risk management gains and losses vary from period to period and are a function of the volumes under risk management contracts, the fixed prices of those risk management contracts and the benchmark pricing for the commodities under risk management contracts. Realized losses result when the average fixed risk management contracted prices are lower than the benchmark prices, while realized gains are recorded when the average fixed risk management contracted prices are higher than the benchmark prices at settlement. Realized gains and losses directly impact cash flow for the period.

During the third quarter of 2016, Pengrowth early settled its 2018 and 2019 commodity risk management contracts for proceeds of \$41.6 million. During the fourth quarter of 2016, Pengrowth early settled a portion of its 2017 commodity risk management contracts for proceeds of \$35.6 million.

Pengrowth recorded a realized commodity risk management gain of \$77.2 million or \$15.44/boe in the fourth quarter of 2016, compared to a gain of \$104.4 million or \$20.58/boe in the third quarter of 2016, inclusive of the early settlement gains.

Fourth quarter of 2016 realized risk management gains decreased \$20.5 million compared to the same period last year driven by the improvement in benchmark prices which was mostly offset by the \$35.6 million of gains related to the fourth quarter of 2016 early settlement of commodity risk management contracts.

Full year 2016 realized commodity risk management gains increased \$58.7 million compared to 2015 mainly driven by \$77.2 million of gains related to the 2016 early settlement of commodity risk management contracts coupled with the impact of lower benchmark prices year over year. This was partly offset by lower volumes and contracted prices under risk management in 2016 relative to 2015.

Changes in Fair Value of Commodity Risk Management Contracts

(\$ millions)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Fair value of commodity risk management assets (liabilities) at period end	(54.0)	51.1	370.5	(54.0)	370.5
Less: Fair value of commodity risk management assets (liabilities) at beginning of period	51.1	136.0	335.2	370.5	421.1
Increase (decrease) in fair value of commodity risk management contracts for the period	(105.1)	(84.9)	35.3	(424.5)	(50.6)

Changes in fair value of commodity risk management contracts vary period to period and are a function of the volumes under risk management contracts, actual settlements of risk management contracts during the period, the fixed prices of those risk management contracts and the forward curve pricing for the commodities under risk management contracts at the end of the period. A decrease in fair value of commodity risk management contracts occurs when the forward price curve moves higher in relation to the fixed price, with the magnitude of the change being proportional to the movement in the forward price curve. An increase in fair value of commodity risk management contracts occurs when the forward price curve moves lower in relation to the fixed price, with the magnitude of the change being proportional to the movement in the forward price curve. Changes in fair value of commodity risk management contracts are also affected by the change in volumes under risk management in the period. Changes in fair value of commodity risk management contracts are reported on the Consolidated Statements of Income (Loss) and do not impact cash flow for the period.

Pengrowth recorded a \$105.1 million decrease in the fair value of commodity risk management contracts at December 31, 2016, as the fair value of commodity risk management assets from September 30, 2016 of \$51.1 million decreased to a liability of \$54.0 million at December 31, 2016. The change was primarily the result of the actual settlements of contracts of \$77.2 million in the fourth quarter of 2016, including \$35.6 million from the early settlement of commodity risk management contracts in addition to the forward price curve increase relative to September 30, 2016.

Pengrowth recorded a \$424.5 million decrease in the fair value of commodity risk management contracts for the full year 2016 as the fair value of commodity risk management assets of \$370.5 million from December 31, 2015 decreased to a liability of \$54.0 million at December 31, 2016. This was also primarily a result of the realized proceeds from settlements of contracts of \$385.7 million in 2016 including \$77.2 million of gains relating to the early settlement of commodity risk management contracts, in addition to the forward price curve increase year over year.

Forward Contracts - Commodity Risk Management

Pengrowth uses primarily crude oil and natural gas swaps to manage its exposure to commodity price fluctuations. In addition, financial and physical contracts are sometimes used to manage oil price differentials. The contracts in place at December 31, 2016, are summarized in the following table:

Crude Oil Swaps

Financial Swap Contracts				
Reference point	Term	Volume (bbl/d)	% of total 2017 oil production Guidance ⁽¹⁾	Price/bbl (Cdn\$) ⁽²⁾
WTI	2017	15,000	58%	65.59

Crude Oil Differentials

Physical Delivery Contracts				
Reference point	Term	Volume (bbl/d)	% of total 2017 oil production Guidance ⁽¹⁾	Price/bbl (U.S.\$)
Western Canada Select	2017	12,000	47%	WTI less \$15.40
Western Canada Select	2017	5,000	19%	WTI less \$15.60 - \$18.35 ⁽³⁾
Western Canada Select	2018	12,000	47%	WTI less \$16.95
Western Canada Select	2018	5,000	19%	WTI less \$16.50 - \$19.25 ⁽³⁾
Western Canada Select	2019	2,500	10%	WTI less \$17.95
Western Canada Select	2019	5,000	19%	WTI less \$17.70 - \$20.45 ⁽³⁾

Natural Gas Swaps

Financial Swap Contracts				
Reference point	Term	Volume (MMBtu/d)	% of 2017 natural gas production Guidance	Price/MMBtu (Cdn\$)
AECO	2017	4,739	4%	3.46

⁽¹⁾ Includes light and heavy crude oil.

⁽²⁾ WTI \$U.S. contracts were converted at the period end exchange rate.

⁽³⁾ Includes apportionment protection fee to guarantee flow assurance in the event mainlines are overcapacity.

Given the low commodity price environment and Pengrowth's level of debt, the Board of Directors approved a one-time measure on September 18, 2015 which allows for up to 90 percent of estimated production to be under risk management until December 31, 2018. After December 31, 2018, the 90 percent limit is expected to revert back to the previous limits as follows: 65 percent for a rolling 1 to 24 month period, 30 percent for a rolling 25 to 36 month period, and 25 percent for a rolling 37 to 60 month period.

See the Commodity Price Contracts section in Note 17 to the December 31, 2016 audited Consolidated Financial Statements for more information.

Commodity Price Sensitivity on Financial Risk Management Contracts as at December 31, 2016

(\$ millions)

Oil swaps	Cdn\$/bbl increase in future oil prices	Cdn\$/bbl decrease in future oil prices
Increase (decrease) to fair value of oil risk management contracts	(5.5)	5.5
Natural gas swaps	Cdn\$0.25/MMBtu increase in future natural gas prices	Cdn\$0.25/MMBtu decrease in future natural gas prices
Increase (decrease) to fair value of natural gas risk management contracts	(0.4)	0.4

The changes in fair value of the forward risk management contracts directly affect reported net income (loss) through the unrealized amounts recorded in the Consolidated Statements of Income (Loss) during the period. The effect on

cash flow will be recognized separately only upon settlement of the risk management contracts, which could vary significantly from the unrealized amount recorded due to timing and prices when each contract is settled.

If each commodity risk management contract were to have settled at December 31, 2016, revenue and cash flow would have been \$54.0 million lower than if the risk management contracts were not in place based on the estimated fair value of the risk management contracts at period end. The \$54.0 million represents liabilities relating to risk management contracts expiring within one year.

Pengrowth has not designated any outstanding commodity risk management contracts as hedges for accounting purposes and therefore records these risk management contracts on the Consolidated Balance Sheets at their fair value and recognizes changes in fair value of commodity risk management contracts on the Consolidated Statements of Income (Loss). The volatility in net income (loss) will continue to the extent that the fair value of the commodity risk management contracts fluctuates. However, these non-cash amounts do not affect Pengrowth's cash flow until realized.

Realized commodity risk management gains (losses) on crude oil and natural gas contracts are recorded separately on the Consolidated Statements of Income (Loss) and impact cash flow at that time. Realized risk management gains (losses) on power contracts are recorded in operating expenses and the unrealized amounts are recorded in other (income) expense, as applicable.

OIL AND GAS SALES EXCLUDING REALIZED COMMODITY RISK MANAGEMENT

Oil and Gas Sales Contribution Analysis

The following table shows the contribution of each product category to oil and gas sales:

(\$ millions except percentages)	Three months ended						Twelve months ended			
	Dec 31, 2016	% of total	Sept 30, 2016	% of total	Dec 31, 2015	% of total	Dec 31, 2016	% of total	Dec 31, 2015	% of total
Light oil	58.1	34	54.2	37	63.8	38	215.8	38	322.2	39
Heavy oil	53.0	31	47.7	33	47.8	28	172.2	31	219.3	27
Natural gas liquids	22.6	14	14.2	10	16.5	10	64.2	11	76.4	9
Natural gas	34.4	20	28.2	19	37.9	22	108.7	19	200.7	24
Other income including sulphur	1.1	1	1.3	1	3.1	2	5.3	1	12.2	1
Total oil and gas sales ⁽¹⁾	169.2		145.6		169.1		566.2		830.8	

⁽¹⁾ Excludes realized commodity risk management.

Price and Volume Analysis

Quarter ended December 31, 2016 versus Quarter ended September 30, 2016

The following table illustrates the effect of changes in prices and volumes on the components of oil and gas sales:

(\$ millions)	Light oil	Heavy oil	NGLs	Natural gas	Other ⁽²⁾	Total
Quarter ended September 30, 2016 ⁽¹⁾	54.2	47.7	14.2	28.2	1.3	145.6
Effect of change in product prices and differentials	6.9	5.2	6.7	7.5	—	26.3
Effect of change in sales volumes	(3.0)	0.1	1.7	(1.3)	—	(2.5)
Other	—	—	—	—	(0.2)	(0.2)
Quarter ended December 31, 2016 ⁽¹⁾	58.1	53.0	22.6	34.4	1.1	169.2

⁽¹⁾ Excludes realized commodity risk management.

⁽²⁾ Primarily sulphur sales.

Light oil sales increased 7 percent in the fourth quarter of 2016 compared to the third quarter of 2016 driven by a 12 percent rise in the Edmonton par light oil benchmark price partly offset by lower light oil sales volumes. Fourth quarter of 2016 heavy oil sales increased 11 percent primarily due to the 14 percent increase in the WCS heavy oil benchmark price during the quarter. NGL sales increased 59 percent from the third quarter of 2016 primarily due to the December 2016 SOEP condensate shipment and an increase in NGL prices. Natural gas sales increased 22 percent compared to the third quarter of 2016 driven by higher natural gas benchmark prices.

Quarter ended December 31, 2016 versus Quarter ended December 31, 2015

The following table illustrates the effect of changes in prices and volumes on the components of oil and gas sales:

(\$ millions)	Light oil	Heavy oil	NGLs	Natural gas	Other ⁽²⁾	Total
Quarter ended December 31, 2015 ⁽¹⁾	63.8	47.8	16.5	37.9	3.1	169.1
Effect of change in product prices and differentials	10.3	12.8	6.6	6.0	—	35.7
Effect of change in sales volumes	(16.0)	(7.6)	(0.5)	(9.5)	—	(33.6)
Other	—	—	—	—	(2.0)	(2.0)
Quarter ended December 31, 2016 ⁽¹⁾	58.1	53.0	22.6	34.4	1.1	169.2

⁽¹⁾ Excludes realized commodity risk management.

⁽²⁾ Primarily sulphur sales.

Light oil sales decreased 9 percent in the fourth quarter of 2016 compared to the same period in 2015 mainly due to lower light oil sales volumes partly offset by a 16 percent increase in the Edmonton par light oil benchmark price. Fourth quarter of 2016 heavy oil sales increased 11 percent compared to the same period last year resulting from a 27 percent increase in the WCS heavy oil benchmark price partly offset by a decrease in heavy oil sales volumes. NGL sales increased 37 percent compared to the fourth quarter of 2015 due mainly to the increase in benchmark prices. Natural gas sales decreased 9 percent due to lower natural gas sales volumes largely offset by a rise in natural gas benchmark prices.

Twelve Months ended December 31, 2016 versus Twelve Months ended December 31, 2015

The following table illustrates the effect of changes in prices and volumes on the components of oil and gas sales:

(\$ millions)	Light oil	Heavy oil	NGLs	Natural gas	Other ⁽²⁾	Total
Twelve months ended December 31, 2015 ⁽¹⁾	322.2	219.3	76.4	200.7	12.2	830.8
Effect of change in product prices and differentials	(16.4)	(43.2)	(4.8)	(36.1)	—	(100.5)
Effect of change in sales volumes	(90.0)	(3.9)	(7.4)	(55.9)	—	(157.2)
Other	—	—	—	—	(6.9)	(6.9)
Twelve months ended December 31, 2016 ⁽¹⁾	215.8	172.2	64.2	108.7	5.3	566.2

⁽¹⁾ Excludes realized commodity risk management.

⁽²⁾ Primarily sulphur sales.

Full year 2016 light oil sales decreased 33 percent compared to the same period in 2015 resulting from lower light oil sales volumes combined with a 7 percent decrease in the Edmonton par light oil benchmark price. Heavy oil sales decreased 21 percent mainly resulting from a 13 percent decrease in the WCS heavy oil benchmark prices. NGL sales decreased 16 percent driven by the impact of lower sales volumes and lower commodity prices. Natural gas sales decreased 46 percent due to lower natural gas sales volumes and lower natural gas benchmark prices.

ROYALTY EXPENSES

	Three months ended			Twelve months ended	
(\$ millions except per boe amounts and percentages)	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Royalty expenses	14.1	10.0	19.1	40.0	89.5
\$/boe	2.82	1.97	3.06	1.91	3.43
Royalties as a percent of oil and gas sales (%) ⁽¹⁾	8.3	6.9	11.3	7.1	10.8

⁽¹⁾ Excludes realized commodity risk management.

Royalties include Crown, freehold, overriding royalties and mineral taxes. Lindbergh Phase 1 royalties are also incorporated as of the declaration of commerciality on April 1, 2015.

Fourth quarter of 2016 royalties as a percentage of sales increased to 8.3 percent from 6.9 percent in the third quarter of 2016 mainly driven by a fourth quarter increase in commodity prices combined with higher SOEP royalties resulting from the condensate shipment in December of 2016.

Fourth quarter of 2016 royalties as a percentage of sales decreased to 8.3 percent from 11.3 percent in the fourth quarter of 2015 primarily due to change in product mix as a result of divestments and declines combined with prior period adjustments.

Full year 2016 royalties as a percentage of sales decreased to 7.1 percent from 10.8 percent in 2015 due to the impact of lower oil par and natural gas reference prices in 2016 as prescribed by Alberta Energy and used in determining Crown royalty volumes. Also contributing to the reduction in royalty rate year over year was the inclusion of the Lindbergh Phase 1 royalties as of April 1, 2015, partly offset by lower Gas Cost Allowance ("**GCA**") recorded in 2016.

OPERATING EXPENSES

(\$ millions except per boe amounts)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Operating expenses	70.0	68.6	81.4	275.4	372.1
\$/boe	14.00	13.52	13.02	13.19	14.28

Fourth quarter of 2016 operating expenses increased \$1.4 million or 2 percent compared to the third quarter of 2016 driven by increased well repair and maintenance activity partly offset by the absence of third quarter Carson Creek turnaround costs. These cost increases resulted in fourth quarter of 2016 operating expenses increasing \$0.48/boe compared to the third quarter of 2016.

Fourth quarter and full year 2016 operating expenses decreased \$11.4 million or 14 percent and \$96.7 million or 26 percent, respectively, compared to the same periods in 2015. The reductions were due to the absence of expenses related to divested properties and lower utility costs, combined with reduced activity and lower third party service rates. Partly offsetting these decreases were 12 months of Lindbergh Phase 1 operating expenses included in 2016 compared to only 9 months in 2015, as commerciality of Lindbergh Phase 1 was declared on April 1, 2015. On a per boe basis, fourth quarter of 2016 operating expenses increased \$0.98/boe compared to the same period last year as the decrease in production volumes outpaced the decrease in costs. Full year 2016 operating expenses per boe decreased \$1.09/boe driven by lower costs and inclusion of Lindbergh Phase 1 operating expenses, which are lower than Pengrowth's average per boe operating expenses on its other assets, partly offset by a decrease in production volumes.

TRANSPORTATION EXPENSES

(\$ millions except per boe amounts)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Transportation expenses	8.2	8.4	9.6	33.7	45.5
\$/boe	1.64	1.66	1.54	1.61	1.75

Fourth quarter of 2016 transportation expenses were relatively unchanged from the third quarter of 2016.

Fourth quarter and full year 2016 transportation expenses decreased \$1.4 million and \$11.8 million, respectively, compared to the same periods in 2015 primarily due to the absence of costs related to direct marketing and delivery of natural gas volumes to the Chicago sales point combined with lower trucking expenses primarily at Lindbergh which was pipeline connected on July 1, 2015. These full year decreases were partly offset by transportation expenses from Lindbergh Phase 1 incremental production.

On a per boe basis, fourth quarter of 2016 transportation expenses remained relatively unchanged compared to the third quarter of 2016. Fourth quarter of 2016 transportation expenses per boe increased \$0.10/boe compared to the fourth quarter of 2015 as the decrease in production volumes outpaced the decrease in transportation costs. Full year 2016 transportation expenses per boe decreased \$0.14/boe compared to 2015, driven by lower transportation expenses, as described above, partly offset by lower production volumes in 2016.

Pengrowth incurs transportation expenses for its natural gas production once the product enters a pipeline at a title transfer point. Pengrowth has the option to sell some of its natural gas directly to markets outside of Alberta by incurring additional transportation costs. Pengrowth also incurs transportation expenses on its oil and NGL production including sales product trucking costs and pipeline costs up to the custody transfer point. As at December 31, 2016, Pengrowth has elected to sell approximately 78 percent of its production at market points beyond the wellhead, incurring transportation costs prior to custody transfer points. The transportation expenses are dependent upon third party rates and the distance the product travels prior to changing ownership or custody.

OPERATING NETBACKS

Pengrowth's operating netbacks have been calculated by taking balances directly from the Consolidated Statements of Income (Loss) and dividing by production for the period. Certain assumptions have been made in allocating operating expenses and royalty credits between products. Operating netbacks as presented below may not be comparable to similar measures presented by other companies, as there are no standardized measures.

Combined Netback Including Realized Commodity Risk Management (\$/boe) ⁽¹⁾	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Oil & gas sales (includes other income)	33.84	28.70	27.06	27.11	31.88
Royalties	(2.82)	(1.97)	(3.06)	(1.91)	(3.43)
Operating expenses	(14.00)	(13.52)	(13.02)	(13.19)	(14.28)
Transportation expenses	(1.64)	(1.66)	(1.54)	(1.61)	(1.75)
Operating netback before realized commodity risk management	15.38	11.55	9.44	10.40	12.42
Realized commodity risk management ^{(2) (3)}	15.44	20.58	15.63	18.47	12.55
Operating netback	30.82	32.13	25.07	28.87	24.97
Light Oil Netback Excluding Realized Commodity Risk Management (\$/bbl)					
Sales	59.59	52.50	49.00	50.24	54.06
Royalties	(8.26)	(7.40)	(7.48)	(5.76)	(7.89)
Operating expenses	(18.98)	(18.83)	(17.84)	(17.01)	(16.60)
Transportation expenses	(1.43)	(1.68)	(1.12)	(1.40)	(1.78)
Light oil operating netback	30.92	24.59	22.56	26.07	27.79
Heavy Oil Netback Excluding Realized Commodity Risk Management (\$/bbl) ⁽¹⁾					
Sales	37.88	34.13	28.72	30.19	37.75
Royalties	(0.86)	(0.71)	(1.10)	(0.57)	(2.00)
Operating expenses	(9.65)	(9.14)	(11.26)	(8.86)	(13.31)
Transportation expenses	(2.89)	(2.86)	(2.30)	(2.88)	(2.45)
Heavy oil operating netback	24.48	21.42	14.06	17.88	19.99
NGLs Netback Excluding Realized Commodity Risk Management (\$/bbl)					
Sales	30.80	21.62	21.86	22.60	24.29
Royalties	(7.65)	(4.75)	(4.65)	(5.50)	(7.92)
Operating expenses	(15.92)	(15.37)	(14.20)	(14.86)	(14.30)
NGLs operating netback	7.23	1.50	3.01	2.24	2.07
Natural Gas Netback Excluding Realized Commodity Risk Management (\$/Mcf)					
Sales	3.03	2.37	2.50	2.25	3.00
Royalties ⁽⁴⁾	0.06	0.15	(0.26)	0.07	(0.09)
Operating expenses	(2.32)	(2.20)	(1.89)	(2.27)	(2.26)
Transportation expenses	(0.24)	(0.22)	(0.28)	(0.23)	(0.31)
Natural gas operating netback (\$/Mcf)	0.53	0.10	0.07	(0.18)	0.34
Natural gas operating netback (\$/boe)	3.18	0.60	0.42	(1.08)	2.04
CONTRIBUTION BASED ON OPERATING NETBACKS					
Light oil	40%	44%	52%	53 %	54%
Heavy oil	45%	52%	42%	48 %	37%
Natural gas liquids	7%	2%	4%	3 %	2%
Natural gas	8%	2%	2%	(4)%	7%

⁽¹⁾ Includes Lindbergh operating results as of April 1, 2015.

⁽²⁾ Fourth quarter and full year 2016 include \$7.12/boe and \$3.70/boe, respectively, of gains related to the early settlement of commodity risk management contracts.

⁽³⁾ Third quarter of 2016 includes \$8.20/boe of gains related to the early settlement of commodity risk management contracts.

⁽⁴⁾ Natural gas royalties impacted by GCA and favourable adjustments to royalties as well as royalty incentives.

Pengrowth realized an operating netback, including commodity risk management, of \$30.82/boe in the fourth quarter of 2016 representing a 4 percent decrease compared to the third quarter of 2016. This was primarily due to an increase in royalties and operating costs as increases in realized prices was offset by lower realized commodity risk management gains. Fourth quarter of 2016 operating netback, including commodity risk management, increased 23 percent compared to the same period last year mostly due to an increase in realized prices partly offset by higher operating expenses.

Full year 2016 operating netback, including commodity risk management, of \$28.87/boe increased 16 percent compared to 2015 mainly resulting from lower royalties and operating expenses. Lower realized pricing was more than offset by higher realized commodity risk management gains year over year.

GENERAL AND ADMINISTRATIVE EXPENSES

(\$ millions except per boe amounts)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Cash G&A expenses ⁽¹⁾	17.8	14.8	15.8	70.4	87.0
\$/boe	3.56	2.92	2.53	3.37	3.34
Non-cash G&A expenses ⁽¹⁾	3.8	2.9	2.3	13.2	12.7
\$/boe	0.76	0.57	0.37	0.63	0.49
Total G&A ⁽¹⁾	21.6	17.7	18.1	83.6	99.7
\$/boe	4.32	3.49	2.90	4.00	3.83
(\$ millions)					
Cash G&A before share based compensation expense ⁽¹⁾	17.1	14.4	15.9	65.1	87.2
Share based compensation expense ⁽¹⁾ :					
Cash-settled share based compensation	0.7	0.4	(0.1)	5.3	(0.2)
Share-settled share based compensation	3.8	2.9	2.3	13.2	12.7
Total share based compensation expense	4.5	3.3	2.2	18.5	12.5
Total G&A ⁽¹⁾	21.6	17.7	18.1	83.6	99.7

⁽¹⁾ Net of recoveries and capitalization, as applicable.

Fourth quarter of 2016 cash G&A expenses of \$17.8 million increased \$3.0 million compared to the third quarter of 2016 primarily due to an increase in personnel costs related to short term incentives and severance costs, combined with the absence of favourable adjustments to the cash-settled share based compensation expense recorded in the third quarter of 2016. Fourth quarter of 2016 cash G&A expenses increased \$2.0 million compared to the fourth quarter of 2015 primarily due to an increase in personnel costs related to short term incentives and severance costs, partly offset by lower professional fees and IT expenses.

Full year 2016 cash G&A expenses decreased \$16.6 million compared to 2015 primarily due to lower personnel costs, resulting from significant staff reductions in the second half of 2015, combined with lower professional fees, IT and office expenses. These decreases were partly offset by lower recoveries and an increase in the cash-settled share based compensation expense in 2016. The increase in the cash-settled share based compensation expense was due to expensing of the 2016 annual grants over the applicable vesting periods and the mark-to-market impact of the increase in Pengrowth's share price. The December 31, 2016 closing share price increased 89 percent relative to the December 31, 2015 closing share price, driving the reported cash-settled share based compensation expense up by \$1.4 million. However, no cash outlay will be made until the actual exercise date. Commencing in 2016, certain employees receive cash-settled long term incentives in place of previously received share-settled long term incentives. Cash-settled long term incentives entitle the holder to a cash payment equivalent to the value of a number of common shares (including the reinvestment of deemed dividends, if applicable) which vest evenly over a period of three years or less. See Note 13 to the December 31, 2016 audited Consolidated Financial Statements for additional information on Pengrowth's cash-settled Long Term Incentive Plans ("LTIP"). The compensation costs associated with these plans are expensed over the applicable vesting periods.

On a per boe basis, fourth quarter of 2016 cash G&A expenses increased \$0.64/boe and \$1.03/boe compared to the third quarter of 2016 and fourth quarter of 2015, respectively, driven by the increase in cash G&A expenses and lower production volumes. Full year 2016 cash G&A per boe remained essentially unchanged as the impact of lower production volumes in 2016, for the most part, offset lower cash G&A expenses.

The non-cash component of G&A represents the compensation expenses associated with Pengrowth's share-settled LTIP. See Note 13 to the December 31, 2016 audited Consolidated Financial Statements for additional information on Pengrowth's share-settled LTIP. The compensation costs associated with these plans are expensed over the applicable vesting periods.

Fourth quarter of 2016 non-cash G&A expenses increased \$0.9 million and \$1.5 million, compared to the third quarter of 2016 and fourth quarter of 2015, respectively, driven by an increase in applicable performance factors used to determine long term incentive awards.

Full year 2016 non-cash G&A expenses increased \$0.5 million compared to 2015 due to an increase in applicable performance factors partly offset by lower share-settled grants in 2016 and higher forfeiture rates related to 2015 staff reductions.

During the twelve months ended December 31, 2016, \$3.2 million (December 31, 2015 - \$8.5 million) of directly attributable G&A costs were capitalized to Property, Plant and Equipment ("**PP&E**").

DEPLETION, DEPRECIATION, AMORTIZATION AND ACCRETION

(\$ millions except per boe amounts)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Depletion, depreciation and amortization	75.3	87.7	104.9	349.9	455.3
\$/boe	15.06	17.29	16.78	16.76	17.47
Accretion	3.6	3.6	3.9	15.1	17.1
\$/boe	0.72	0.71	0.62	0.72	0.66

Fourth quarter of 2016 DD&A expense decreased \$12.4 million compared to the third quarter of 2016 primarily driven by a lower unit of production rate as a downward ARO asset revision resulted in a decrease to the PP&E base. The fourth quarter of 2016 ARO asset revision resulted from an increase in the discount rate quarter over quarter.

Fourth quarter and full year 2016 DD&A expense decreased \$29.6 million and \$105.4 million compared to the same periods last year, respectively, due to a lower unit of production rate as a result of lower net book value from 2015 PP&E impairment charges combined with a decrease in production volumes and the absence of depletion related to divested properties.

Fourth quarter of 2016 ARO accretion expense remained essentially unchanged compared to the third quarter of 2016 and the fourth quarter of 2015. Full year 2016 accretion expense decreased \$2.0 million compared to the same period last year resulting primarily from lower discount rates throughout the year and the absence of accretion related to the ARO liability associated with 2016 property dispositions.

EXPLORATION AND EVALUATION ASSETS ("E&E")

Pengrowth's E&E assets consist of exploration and development projects which are pending the determination of proved plus probable reserves and production.

E&E assets totaled \$496.3 million at December 31, 2016, primarily related to the Groundbirch and Bernadet properties in north eastern British Columbia. See Note 6 to the December 31, 2016 audited Consolidated Financial Statements for more information.

IMPAIRMENTS

(\$ millions)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
PP&E impairment	—	—	401.0	—	810.0
Goodwill impairment	—	—	117.5	—	190.5
Total impairment	—	—	518.5	—	1,000.5

PP&E Impairments

Pengrowth is in the process of marketing various assets as an alternative to reduce debt. Management identified impairment triggers in this regard and performed impairment tests; however, no impairment expense was required to be recorded as at the date of the financial statements. The December 31, 2016 impairment tests were carried out based only on proved plus probable reserve values using pre-tax discount rates of 10 - 12 percent, January 1, 2017 independent reserves evaluator's forecast pricing, and an inflation rate of 2 percent.

At September 30, 2015 and December 31, 2015, impairment tests were carried out on all CGUs in light of significant and rapid declines in commodity prices at that time. This resulted in an \$810.0 million total PP&E impairment recorded in 2015. See Note 5 to the December 31, 2015 audited Consolidated Financial Statements for more information.

E&E Impairments

For the year ended December 31, 2015, Pengrowth evaluated Groundbirch for an impairment in conjunction with the Montney CGU, which has both PP&E and E&E. This was in accordance with Pengrowth's policy and IFRS which states that the impairment of ongoing E&E projects should be assessed on the cash flow from the applicable CGUs in the operating segment. It was determined that the recoverable amount exceeded the carrying amount and, as such, no impairment was recorded for the year ended December 31, 2015.

Goodwill Impairments

In accordance with IFRS, goodwill is assessed for impairment at each year end, or when there is an indication of impairment, in conjunction with the assessment for impairment of PP&E and E&E.

At December 31, 2016, Pengrowth has no remaining goodwill balance. At September 30, 2015 and December 31, 2015, goodwill impairment tests were performed. This resulted in a \$190.5 million of goodwill impairment in 2015, reducing the goodwill balance to \$nil at December 31, 2015. See Note 7 to the December 31, 2015 audited Consolidated Financial Statements for more information.

INTEREST AND FINANCING CHARGES

(\$ millions)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Interest and financing charges	27.0	27.1	28.5	108.5	116.3
Capitalized interest	(0.7)	(0.8)	(0.6)	(3.0)	(12.4)
Total interest and financing charges	26.3	26.3	27.9	105.5	103.9

At December 31, 2016, Pengrowth had approximately \$1.7 billion in total debt before working capital, composed of \$1.6 billion of fixed rate debt and \$0.1 billion of convertible debentures outstanding. Total fixed rate debt consists primarily of U.S. dollar denominated senior unsecured notes at a weighted average interest rate of 5.8 percent. The convertible debentures have a 6.25 percent coupon. Pengrowth had no borrowings on the credit facility.

Fourth quarter of 2016 interest and financing charges, before capitalized interest, remained unchanged compared to the third quarter of 2016.

Fourth quarter 2016 interest and financing charges, before capitalized interest, decreased \$1.5 million compared to the fourth quarter of 2015 mainly due to lower borrowings on the credit facilities in 2016. During 2016, surplus funds flow and disposition proceeds were used to completely repay the bank credit facility. Also contributing to the decrease was the absence of interest relating to the U.K. term debt repaid on December 1, 2015 partly offset by additional

financing charges related to the finance lease of the co-generation facilities at Lindbergh, discussed in the Acquisitions and Dispositions section of this MD&A.

Full year 2016 interest and financing charges, before capitalized interest, decreased \$7.8 million compared to 2015 due to lower borrowings on the credit facilities in 2016 and the absence of interest relating to the U.K. term debt repaid on December 1, 2015 combined with a gain on redemption of convertible debentures realized in 2016. These decreases were partly offset by higher Canadian equivalent interest expense on U.S. term debt, resulting from the weaker average Canadian Dollar and additional financing charges related to the finance lease of the co-generation facilities at Lindbergh.

Following declaration of commerciality at the Lindbergh project on April 1, 2015, Pengrowth ceased capitalizing interest on the first commercial phase of the project. In accordance with IFRS, interest is capitalized for qualifying assets in the construction phase based on costs incurred on the project and the average cost of borrowing. During the twelve months ended December 31, 2016, \$3.0 million (December 31, 2015 - \$12.4 million) of interest was capitalized on the Lindbergh project to PP&E using Pengrowth's weighted average cost of debt of 5.7 percent (December 31, 2015 - 5.4 percent).

OTHER (INCOME) EXPENSE

Full year 2016 other income of \$2.7 million was relatively unchanged from last year. The \$2.7 million was mostly related to investment income on remediation trust funds and interest income.

TAXES

Deferred income tax is a non-cash item relating to temporary differences between the accounting and tax basis of Pengrowth's assets and liabilities and has no immediate impact on Pengrowth's cash flows. Pengrowth recorded a deferred tax recovery of \$9.9 million in the fourth quarter of 2016, compared to deferred tax recoveries of \$14.9 million and \$108.4 million in the third quarter of 2016 and the fourth quarter of 2015, respectively. This was primarily due to temporary differences related to the change in fair value of commodity risk management contracts in the fourth quarter of 2016 and fourth quarter of 2015 PP&E impairment charges. The full year 2016 deferred tax recovery amounted to \$93.4 million compared to a recovery of \$222.7 million recorded in 2015 driven by the above mentioned temporary differences and impairment charges.

Pengrowth has certain income tax filings from predecessor entities that are in dispute with tax authorities and has paid \$9.5 million and \$2.7 million to the Canada Revenue Agency ("**CRA**") and the Alberta Tax and Revenue Administration, respectively, to formally begin the process of challenging the particular taxation year. Pengrowth believes that its filings to-date are correct and that it will be successful in defending its positions. Therefore, no provision for any potential income tax liability was recorded and the \$12.2 million has been recorded as a long term receivable.

See Notes 4 and 11 to the December 31, 2016 audited Consolidated Financial Statements for additional information.

FOREIGN CURRENCY GAINS (LOSSES)

(\$ millions)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Currency exchange rate (Cdn\$1 = U.S.\$) at period end	0.74	0.76	0.72	0.74	0.72
Unrealized foreign exchange gain (loss) on U.S. dollar denominated debt ⁽¹⁾	(34.8)	(22.8)	(55.7)	46.8	(253.8)
Unrealized foreign exchange gain (loss) on U.K. pound sterling denominated debt ⁽¹⁾	0.7	0.3	(0.1)	5.8	(13.9)
Total unrealized foreign exchange gain (loss) from translation of foreign denominated debt	(34.1)	(22.5)	(55.8)	52.6	(267.7)
Unrealized gain (loss) on U.S. foreign exchange risk management contracts ⁽²⁾	(26.7)	12.9	31.0	(80.6)	19.2
Unrealized gain (loss) on U.K. foreign exchange risk management contracts	(0.8)	(0.1)	(0.2)	(5.4)	13.3
Total unrealized gain (loss) on foreign exchange risk management contracts	(27.5)	12.8	30.8	(86.0)	32.5
Net unrealized foreign exchange gain (loss)	(61.6)	(9.7)	(25.0)	(33.4)	(235.2)
Net realized foreign exchange gain (loss) ^{(3) (4)}	46.8	0.5	0.3	46.5	91.5

⁽¹⁾ Includes both principal and interest.

⁽²⁾ Includes both foreign exchange risk management contracts associated with the U.S. senior unsecured notes and with the U.S. dollar fixed price WCS differential.

⁽³⁾ Three and twelve months ended December 31, 2016 include \$47.0 million of gains related to the early settlement of foreign exchange swap contracts.

⁽⁴⁾ Three and twelve months ended December 31, 2015 include \$0.2 million and \$94.1 million, respectively, of gains related to the settlement of foreign exchange swap contracts.

As 90 percent of Pengrowth's total debt before working capital is denominated in foreign currencies at December 31, 2016, the majority of Pengrowth's unrealized foreign exchange gains and losses are attributable to the translation of this debt into Canadian dollars and changes in the fair value of the related foreign exchange swap contracts Pengrowth employs to manage this risk.

The gains or losses on foreign debt principal restatement each period are calculated by comparing the translated Canadian dollar balance of foreign currency denominated long term debt from one period to another. The magnitude of the gains and losses is proportionate to the magnitude of the exchange rate fluctuation between the opening and closing rates for the respective periods and the amount of debt denominated in a foreign currency.

U.S.\$ Swap Contracts Associated with the U.S. Dollar Denominated Term Debt

Pengrowth holds a series of swap contracts which were transacted in order to fix the foreign exchange rate on a portion of principal for Pengrowth's U.S. dollar denominated term debt. The swaps partially offset foreign exchange gains/losses on U.S. dollar denominated debt. Each swap requires Pengrowth to buy U.S. dollars at a predetermined rate and time, based upon maturity dates of the U.S. dollar term debt.

During the fourth quarter of 2016, Pengrowth monetized gains on all of the outstanding U.S.\$920.0 million of swap contracts that fixed the foreign exchange rate on Pengrowth's U.S. dollar denominated term debt. This resulted in a Cdn\$47.0 million realized foreign exchange gain in the fourth quarter of 2016. Pengrowth subsequently entered into U.S.\$920.0 million of new swap contracts at a weighted average rate of U.S.\$0.75 per Cdn\$1 as follows:

Principal amount (U.S.\$ millions)	Swapped amount (U.S.\$ millions)	% of principal swapped	Average fixed rate (Cdn\$1 = U.S.\$)
1,115.5	920.0	82%	0.75

At December 31, 2016, the fair value of these U.S. foreign exchange derivative contracts was a liability of Cdn\$6.0 million and has been included on the Consolidated Balance Sheets. Changes in the fair value of these contracts between Balance Sheet dates are reported on the Consolidated Statements of Income (Loss) as an unrealized foreign exchange (gain) loss.

During 2015, Pengrowth monetized gains on U.S.\$410 million of swap contracts that fixed the foreign exchange rate on Pengrowth's U.S. dollar denominated term debt. This resulted in a Cdn\$84.1 million realized foreign exchange gain in the first quarter of 2015 and the cash proceeds were used to pay down a portion of the credit facilities. The foreign exchange swap contracts of U.S.\$50 million associated with the May 2015 U.S. term debt series settled in tandem with its maturity, resulting in a Cdn\$9.8 million realized foreign exchange gain recorded in the second quarter of 2015.

Together, these transactions brought 2015 realized foreign exchange gains from settlement of U.S. swap contracts to Cdn\$93.9 million. Subsequent to the 2015 monetization, Pengrowth entered into a series of new foreign exchange swap contracts. At December 31, 2015, Pengrowth held a total of U.S.\$920.0 million in foreign exchange swap contracts at a weighted average fixed rate of U.S.\$0.78 per Cdn\$1.

U.S.\$ Swap Contracts Associated with the Fixed Price WCS Differential

Pengrowth entered into several foreign exchange risk management contracts related to the U.S. dollar WCS differential physical delivery contracts as follows:

Notional quantity (bbl/d)	Term	Average fixed rate (Cdn\$1 = U.S.\$)
15,000	2017	0.76

At December 31, 2016, the fair value of these U.S. foreign exchange derivative contracts was an asset of Cdn\$2.5 million and has been included on the Consolidated Balance Sheets. Changes in the fair value of these contracts between Balance Sheet dates are reported on the Consolidated Statements of Income (Loss) as an unrealized foreign exchange (gain) loss.

U.K. Pound Sterling Swap Contracts Associated with the U.K. Pound Sterling Denominated Term Debt

Pengrowth entered into foreign exchange risk management contracts when it issued the U.K. pound sterling denominated term debt. At December 31, 2016, Pengrowth held the following contract fixing the Canadian dollar to the U.K. pound sterling exchange rate on the interest and principal of the U.K. pound sterling denominated debt maturing in October 2019:

Principal amount (U.K. pound sterling millions)	Swapped amount (U.K. pound sterling millions)	% of principal swapped	Fixed rate (Cdn\$1 = U.K. pound sterling)
15.0	15.0	100%	0.63

At December 31, 2016, the fair value of the U.K. foreign exchange derivative contracts was a net asset of \$0.8 million and has been included on the Consolidated Balance Sheets. Changes in the fair value of these contracts between Balance Sheet dates are reported on the Consolidated Statements of Income (Loss) as an unrealized foreign exchange (gain) loss.

Foreign Exchange Rate Sensitivity on Foreign Denominated Term Debt

The following summarizes the sensitivity on a pre-tax basis, of a change in the foreign exchange rate related to the translation of the foreign denominated term debt and the offsetting change in the fair value of the foreign exchange risk management contracts relating to that debt, holding all other variables constant:

Foreign exchange sensitivity as at December 31, 2016 (\$ millions)	Cdn\$0.01 Exchange rate change	
	Cdn - U.S.	Cdn - U.K.
Unrealized foreign exchange gain or loss on foreign denominated debt	11.2	0.2
Unrealized foreign exchange risk management gain or loss	9.2	0.2
Net pre-tax impact on Consolidated Statements of Income (Loss)	2.0	—

Foreign Exchange Rate Sensitivity on Fixed Price WCS Differential

A Cdn\$0.01 exchange rate change in the U.S. dollar would result in a pre-tax change in the unrealized gain (loss) on foreign exchange risk management contracts outstanding as at December 31, 2016 of approximately \$0.8 million.

ASSET RETIREMENT OBLIGATIONS - NET PRESENT VALUE

(\$ millions)	Dec 31, 2016	Dec 31, 2015	Change
ARO, beginning of year	703.4	780.8	(77.4)
Expenditures on remediation/provisions settled	(20.0)	(19.0)	(1.0)
ARO on dispositions	(11.8)	(112.4)	100.6
Incurred during the period	—	16.8	(16.8)
Accretion	15.1	17.1	(2.0)
Other revisions	(34.4)	20.1	(54.5)
ARO, end of year	652.3	703.4	(51.1)

The total future ARO is based on management's estimate of costs to remediate, reclaim and abandon wells and facilities having regard for Pengrowth's working interest and the estimated timing of the costs to be incurred in future periods. Pengrowth has developed an internal process to calculate these estimates which considers applicable regulations, actual and anticipated costs, type and size of well or facility and the geographic location.

At December 31, 2016, the ARO liability decreased \$51.1 million mainly due to \$34.4 million of revisions to cost and timing estimates combined with \$11.8 million of the liability decrease due to divestments. Pengrowth has estimated the net present value of its total ARO to be \$652.3 million as at December 31, 2016 (December 31, 2015 – \$703.4 million), based on a total escalated future liability of \$2.1 billion (December 31, 2015 – \$1.7 billion). Total escalated future liability increased in 2016 due to the economic field lives being extended, driven by the improvement in economics relative to 2015. The majority of the costs are expected to be incurred between 2040 and 2085. A risk free discount rate of 2.3 percent per annum and an ARO specific inflation rate of 1.5 percent were used to calculate the net present value of the ARO at December 31, 2016.

REMEDIATION TRUST FUNDS AND REMEDIATION AND ABANDONMENT EXPENSE

During 2016, Pengrowth contributed \$30.1 million (December 31, 2015 - \$21.4 million), into externally managed trust funds established to fund certain abandonment and reclamation costs associated with Judy Creek and Sable Offshore Energy Project ("**SOEP**"). The total balance of the remediation trust funds was \$106.5 million at December 31, 2016 (December 31, 2015 - \$79.6 million).

Pengrowth has a contractual obligation to make contributions to a remediation trust fund that is used to cover certain ARO on its Judy Creek properties in the Swan Hills area. Pengrowth makes monthly contributions to the fund of \$0.10/boe of production from the Judy Creek properties and an annual lump sum contribution of \$0.25 million.

Pengrowth has a contractual obligation to make contributions to a remediation trust fund that will be used to fund the ARO of the SOEP properties and facilities. In 2016, Pengrowth made a monthly contribution to the fund at a rate of \$6.64/MMBtu of its share of natural gas production and \$13.29/bbl of its share of natural gas liquids production from SOEP. Starting in January 2017, the rates decreased to \$4.07/MMBtu of Pengrowth's share of natural gas production and \$7.71/bbl of Pengrowth's share of natural gas liquids production.

See Note 4 to the December 31, 2016 audited Consolidated Financial Statements for additional information.

Pengrowth takes a proactive approach to managing its well abandonment and site restoration obligations. There is an on-going program to abandon wells and reclaim well and facility sites. For 2016, Pengrowth spent \$20.0 million on abandonment and reclamation (December 31, 2015 - \$19.0 million). Pengrowth expects to spend approximately \$20 million in 2017 on abandonment and reclamation activities, excluding contributions to remediation trust funds and orphan well levies from the Alberta Energy Regulator.

CLIMATE CHANGE PROGRAMS

The Province of Alberta regulates Greenhouse Gas ("**GHG**") emissions under the Climate Change and Emissions Management Act. Under that Act, the Specified Gas Reporting Regulation ("**SGRR**") imposes annual GHG emissions reporting requirements on all Alberta facilities that emit more than 50,000 tonnes of greenhouse gases per year.

Pengrowth is also subject to the Specified Gas Emitters Regulation ("**SGER**"), which imposes GHG emissions intensity limits and reduction requirements for owners of facilities that emit 100,000 tonnes per year or more of GHG. 2015 amendments to the SGER have increased the maximum emission intensity reduction requirement for facility owners

from 12 percent to 15 percent over baseline emission levels for those facilities in 2016, and 20 percent starting in 2017. The baseline for facilities is an average of 2003, 2004 and 2005 emissions. Facilities can meet these required reductions in three ways: audited emission reductions in their operations; purchased Alberta-based offset carbon credits or contributions to the Alberta Climate Change and Emissions Management Fund. Unused reduction credits from one year may be carried forward to future years. The 2015 SGER amendments have increased the price for such credits from \$15/tonne to \$20/tonne for 2016 and \$30/tonne beginning in 2017.

In 2016, Pengrowth had three operated facilities that are subject to the annual 15 percent reduction: the Olds Gas Plant, the Judy Creek Gas Conservation Plant and the Quirk Creek Gas Plant. Pengrowth will submit the 2016 SGER Compliance reports summarizing emissions reduction information on these facilities by March 31, 2017, as scheduled. It is anticipated that the Olds Gas Plant and the Judy Creek Gas Conservation Plant will achieve the reduction targets for 2016; however the Quirk Creek Gas Plant is not expected to achieve the reduction target. In 2016, Pengrowth purchased approximately \$0.1 million (net of credits) of Emission Performance Credits payable to the Alberta Climate Change and Emissions Management Fund relating to the 2015 Quirk Creek Gas Plant emissions reporting period. Pengrowth expects to purchase a similar amount in the first quarter of 2017 relating to the 2016 emissions reporting period.

In November 2015, the Government of Alberta announced its Climate Leadership Plan (“CLP”) highlighting four key strategies that the government will implement to address climate change:

1. the complete phase-out of coal-fired sources of electricity by 2030;
2. an Alberta economy-wide price on GHG emissions of \$30/tonne;
3. capping oil sands emissions to a province-wide total of 100 megatonnes per year, with certain exceptions for cogeneration power sources and new upgrading capacity; and
4. reducing methane emissions from oil and gas activities by 45 percent by 2025.

Consistent with the Climate Leadership Plan announcement, the Government of Alberta is currently engaging industry for the development of the new Carbon Competitiveness Regulation (“CCR”) which is scheduled to replace the current SGER as of January 1, 2018. The majority of the impact of the Climate Leadership Plan is not expected until 2023.

ACQUISITIONS AND DISPOSITIONS

(\$ millions)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Property acquisitions	—	(1.3)	—	(1.3)	(0.9)
Proceeds from property dispositions	10.6	2.2	183.4	60.2	210.5
Net cash proceeds from dispositions	10.6	0.9	183.4	58.9	209.6

During 2016, Pengrowth had minimal acquisition activity. Dispositions were primarily related to the sale and leaseback of the co-generation facilities at the Lindbergh thermal oil project in Cold Lake Alberta for proceeds of \$35.0 million and other minor dispositions, partly offset by minor sales price adjustments to previously closed dispositions, resulting in pre-tax losses on dispositions of \$27.1 million.

During 2015, Pengrowth disposed of its non-core Jenner and Bodo assets and other minor properties for proceeds of \$210.5 million, net of closing adjustments, resulting in pre-tax losses of \$98.1 million.

WORKING CAPITAL

Working capital surplus or deficiency is calculated as current assets less current liabilities per the Consolidated Balance Sheets.

At December 31, 2016, Pengrowth had a working capital deficiency of \$396.9 million, as current liabilities included \$537.0 million of senior unsecured notes and \$126.6 million of convertible debentures which are due within one year. Excluding the current portions of the senior unsecured notes and convertible debentures, Pengrowth had a working capital surplus of \$266.7 million, primarily from the \$286.7 million of cash on hand at December 31, 2016.

At December 31, 2015, Pengrowth had a working capital surplus of \$181.6 million which was a result of the current asset portion of the fair value of risk management contracts and receivables exceeding the current liabilities.

FINANCIAL INSTRUMENTS

Pengrowth uses financial instruments to manage its exposure to commodity and power price fluctuations and foreign currency exposure. Pengrowth's policy is not to utilize financial instruments for trading or speculative purposes. See Note 2 to the December 31, 2016 audited Consolidated Financial Statements for a description of the accounting policies for financial instruments and Note 17 to the December 31, 2016 audited Consolidated Financial Statements for additional information regarding the fair value of Pengrowth's financial instruments.

FUNDS FLOW FROM OPERATIONS AND DIVIDENDS

The following table provides funds flow from operations, dividends declared, the excess of funds flow from operations over dividends and payout ratio:

(\$ millions except per share amounts)	Three months ended			Twelve months ended	
	Dec 31, 2016	Sept 30, 2016	Dec 31, 2015	Dec 31, 2016	Dec 31, 2015
Funds flow from operations ^{(1) (2)(3) (4)}	111.7	122.7	114.2	429.7	459.3
Dividends declared	—	—	5.5	—	101.0
Funds flow from operations less dividends declared	111.7	122.7	108.7	429.7	358.3
Per share	0.20	0.22	0.20	0.79	0.66
Payout ratio ^{(5) (6)}	—%	—%	5%	—%	22%

⁽¹⁾ Funds flow from operations for the three and twelve months ended December 31, 2016 include \$35.6 million and \$77.2 million, respectively, of gains related to the early settlement of commodity risk management contracts.

⁽²⁾ Funds flow from operations for the three months ended September 30, 2016 includes \$41.6 million of gains related to the early settlement of commodity risk management contracts.

⁽³⁾ Funds flow from operations for the three and twelve months ended December 31, 2016 exclude \$47.0 million of gains related to the early settlement of foreign exchange swap contracts as this was considered a financing activity.

⁽⁴⁾ Funds flow from operations for the three and twelve months ended December 31, 2015 exclude \$0.2 million and \$94.1 million, respectively, of gains related to the 2015 settlement of foreign exchange swap contracts as these were considered financing activities.

⁽⁵⁾ Payout ratio is calculated as dividends declared divided by funds flow from operations.

⁽⁶⁾ See definition under the section "**Non-GAAP Financial Measures**".

As a result of the depleting nature of oil and gas assets, capital expenditures are required to offset production declines while other capital is required to maintain facilities, acquire prospective lands and prepare future projects. Capital spending and acquisitions may be funded by the excess of funds flow from operations less dividends declared, and as applicable, through the sale of existing properties, issuance of additional debt or the issuance of equity. Pengrowth does not deduct capital expenditures when calculating funds flow from operations.

Funds flow from operations is derived from producing and selling oil, natural gas and related products and is therefore highly dependent on commodity prices. Pengrowth enters into forward commodity risk management contracts to mitigate price volatility and to provide a measure of stability to cash flow. Details of commodity risk management contracts are contained in Note 17 to the December 31, 2016 audited Consolidated Financial Statements.

DIVIDENDS

In response to the low commodity price environment and near term price outlook, Pengrowth's Board of Directors suspended the quarterly payment of \$0.01 per share on January 20, 2016. No dividends were declared or paid in 2016. The Board will continue to review its dividend policy on a regular basis.

Dividend amounts paid (Cdn\$ per share)		
Month	2016	2015
January	—	0.04
February	—	0.04
March	—	0.02
April	—	0.02
May	—	0.02
June	—	0.02
July	—	0.02
August	—	0.02
September	—	0.02
October	—	—
November	—	—
December ⁽¹⁾	—	0.01
Total dividends paid per share	—	0.23

⁽¹⁾ December 2015 represents a quarterly payment of \$0.01 per share.

Dividend Reinvestment Plan ("DRIP")

During 2016, no shares were issued under the DRIP program. During 2015, 6.4 million shares were issued under the DRIP program for cash proceeds of \$18.7 million.

SUMMARY OF QUARTERLY RESULTS

	2016				2015			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Oil and gas sales (\$ millions) ⁽¹⁾	169.2	145.6	137.2	114.2	169.1	211.9	249.9	199.9
Net income (loss) (\$ millions)	(92.4)	(52.9)	(173.4)	25.0	(468.6)	(329.6)	(134.4)	(160.5)
Net income (loss) per share (\$)	(0.17)	(0.10)	(0.32)	0.05	(0.86)	(0.61)	(0.25)	(0.30)
Net income (loss) per share - diluted (\$)	(0.17)	(0.10)	(0.32)	0.05	(0.86)	(0.61)	(0.25)	(0.30)
Adjusted net income (loss) (\$ millions)	45.3	18.6	(16.5)	0.5	(463.4)	(374.0)	(38.9)	64.8
Funds flow from operations (\$ millions) ^{(2) (3) (4)}	111.7	122.7	89.1	106.2	114.2	120.6	111.5	113.0
Dividends declared (\$ millions)	—	—	—	—	5.5	21.8	30.8	42.9
Dividends declared per share (\$)	—	—	—	—	0.01	0.04	0.06	0.08
Daily production (boe/d)	54,354	55,137	56,735	62,056	67,934	74,239	74,113	69,334
Total production (Mboe)	5,001	5,073	5,163	5,647	6,250	6,830	6,744	6,240
Average sales price (\$/boe) ⁽¹⁾	33.62	28.45	26.32	19.94	26.56	30.75	36.58	31.39
Operating netback (\$/boe) ⁽⁵⁾	30.82	32.13	25.46	27.31	25.07	25.48	23.98	25.37

⁽¹⁾ Excludes realized commodity risk management.

⁽²⁾ Fourth quarter of 2016 funds flow from operations includes \$35.6 million of gains related to the early settlement of commodity risk management contracts and excludes \$47.0 million related to the settlement of foreign exchange swap contracts as this was considered a financing activity.

⁽³⁾ Third quarter of 2016 funds flow from operations includes \$41.6 million of gains related to early settlement of commodity risk management contracts.

⁽⁴⁾ First, second and fourth quarters of 2015 funds flow from operations exclude \$84.1 million, \$9.8 million and \$0.2 million, respectively, related to the settlement of foreign exchange swap contracts as these were considered financing activities.

⁽⁵⁾ Includes realized commodity risk management.

Fourth quarter of 2016 average sales price increased compared to the preceding five quarters, but remained lower than second quarter of 2015, as per the table above, driven by changes in the benchmark prices. The impact of the declining benchmark prices on oil and gas sales has been offset somewhat by the weakening Canadian dollar throughout the two year period.

Although oil and gas sales have declined significantly throughout 2016 and 2015, driven by a steep decline in the oil

and natural gas benchmark prices, operating netbacks and funds flow from operations remained strong primarily due to realized commodity risk management gains.

Fourth quarter of 2016 production was lower than all of the preceding quarters of 2016 and 2015 resulting primarily from property dispositions and natural declines due to capital spending curtailments in the current low commodity price environment. The second and third quarters of 2015 production increases were mainly attributable to the inclusion and ramp-up of the Lindbergh Phase 1 production.

Quarterly net income (loss), as per the table above, has also been affected by non-cash charges, in particular depletion, depreciation and amortization, impairment charges, accretion of ARO, changes in fair value of commodity risk management contracts, unrealized foreign exchange gains (losses), gains (losses) on property divestments, and deferred income taxes, as applicable. Funds flow from operations was also impacted by changes in royalty expense, operating and cash G&A costs.

SELECTED ANNUAL INFORMATION

The table below provides a summary of selected annual information for the years ended 2016, 2015 and 2014:

(\$ millions unless otherwise indicated)	Twelve months ended December 31		
	2016	2015	2014
Oil and gas sales ⁽¹⁾	566.2	830.8	1,496.9
Net income (loss)	(293.7)	(1,093.1)	(578.8)
Net income (loss) per share (\$)	(0.54)	(2.02)	(1.10)
Net income (loss) per share - diluted (\$)	(0.54)	(2.02)	(1.10)
Dividends declared per share (\$)	—	0.19	0.48
Total assets	4,101.3	4,550.7	6,169.8
Long term debt ⁽²⁾	1,687.3	1,852.8	1,859.2
Shareholders' equity	1,485.0	1,765	2,926.8
Number of shares outstanding at year end (thousands)	547,709	543,033	533,438

⁽¹⁾ Excluding realized commodity risk management.

⁽²⁾ Includes current and long term portions of long term debt and convertible debentures, as applicable.

COMMITMENTS AND CONTRACTUAL OBLIGATIONS

(\$ millions)	2017	2018	2019	2020	2021	Thereafter	Total
Convertible debentures ⁽¹⁾	126.6	—	—	—	—	—	126.6
Interest payments on convertible debentures	3.9	—	—	—	—	—	3.9
Long term debt ⁽²⁾	537.0	370.6	71.7	154.8	—	426.6	1,560.7
Interest payments on long term debt ⁽³⁾	89.6	46.1	29.1	21.2	17.8	36.1	239.9
Operating leases ⁽⁴⁾	14.5	9.1	9.1	9.4	9.4	29.2	80.7
Pipeline transportation	32.1	33.0	30.8	31.9	31.6	109.0	268.4
Other	14.5	2.1	0.4	0.4	0.4	15.6	33.4
	818.2	460.9	141.1	217.7	59.2	616.5	2,313.6

⁽¹⁾ Assumes no conversion of convertible debentures prior to maturity.

⁽²⁾ The debt repayment includes foreign denominated fixed rate debt translated using the year end exchange rate and excludes related foreign exchange risk management contracts.

⁽³⁾ Interest payments are calculated at fixed rate debt interest rates and December 31, 2016 period end exchange rate.

⁽⁴⁾ Includes office rent, vehicle leases and other.

SUBSEQUENT EVENTS

On January 6, 2017, Pengrowth completed the sale of a 4.0 percent GORR interest on its Lindbergh thermal property and certain seismic assets for \$250 million cash consideration. The \$117.5 million carrying value associated with the GORR and seismic sale is presented as assets held for sale and classified as a current asset on the Consolidated Balance Sheets. It is expected that a gain on disposition of approximately \$130 million before tax, net of transaction costs, will be recorded in the first quarter of 2017.

On February 21, 2017, Pengrowth announced plans to use its cash on hand to repay the \$126.6 million convertible debenture on March 31, 2017 and early repay U.S.\$300.0 million of the U.S.\$400.0 million 6.35 percent senior unsecured

notes on March 30, 2017. Following these payments, Pengrowth's pro forma debt will be reduced to approximately \$1.1 billion assuming February 21, 2017 exchange rates.

BUSINESS RISKS

The following factors should not be considered exhaustive. Additional risks are outlined in the Corporation's most recent Annual Information Form ("**AIF**") which is available on SEDAR at www.sedar.com.

The value of Pengrowth common shares is subject to numerous risk factors. Pengrowth's principal source of net cash flow is from Pengrowth's portfolio of producing oil and natural gas properties. Some of the principal risk factors that are associated with Pengrowth's business include, but are not limited to, the following:

Risks associated with Commodity Prices

- The prices of Pengrowth's products (crude oil, bitumen, natural gas and NGLs) fluctuate due to many factors including local and global market supply and demand, weather patterns, availability of pipeline and rail transportation capacity, availability of refining capacity, discount for Western Canadian light and heavy oil and natural gas, and political and economic stability.
- Production could be shut-in at specific wells or fields in times of low commodity prices.
- Substantial and sustained reductions in commodity prices or equity and debt markets, including Pengrowth's share price, in some circumstances could result in Pengrowth recording an impairment loss as well as affect Pengrowth's ability to reinstate and maintain a dividend on its shares, spend capital, service its debt and meet its other obligations. An impairment test is sensitive to lower realized commodity prices, which have been under significant downward pressure in recent years. Declines in commodity prices could result in impairment charges as the cushions in the CGU impairment tests have been eroded by commodity price decreases.

Risks associated with Liquidity

- Capital markets may restrict Pengrowth's access to capital and raise its cost of capital and borrowing costs. To the extent that external sources of capital become limited or cost prohibitive, Pengrowth's ability to fund future development and acquisition opportunities may be impaired.
- Pengrowth is exposed to third party credit risk through its oil and gas sales, financial hedging transactions and joint venture activities. The failure of any counterparties to meet their contractual obligations could adversely impact Pengrowth.
- Changing interest rates influence borrowing costs and the availability of capital.
- Failing a financial covenant may result in one or more of Pengrowth's loans being in default. In most circumstances, being in default of one loan will result in other loans also being in default and restrict access to the Credit Facility and Demand Facility. If an event of non-compliance continued, Pengrowth would have to repay the relevant debt, refinance the debt or negotiate new terms with the debt holders.
- In event of default on Pengrowth's debts, the net proceeds of any foreclosure sale would be allocated to the repayment of the lenders, note holders and other creditors and only the remainder, if any, would be available for distribution to the shareholders.
- Uncertainty in international financial markets could lead to constrained capital markets, increased cost of capital and negative impact on economic activity and commodity prices.

Risks associated with Legislation and Regulatory Changes

- Government royalties, income taxes, commodity and other taxes, levies, fees and any audits may have a significant economic impact on Pengrowth's financial results. Changes to federal and provincial legislation governing such royalties, taxes and fees could have a material impact on Pengrowth's financial results and the value of Pengrowth's common shares.
- Environmental laws and regulatory initiatives impact Pengrowth financially and operationally. We may incur substantial capital and operating expenses to comply with increasingly complex laws and regulations covering the protection of the environment and human health and safety. In particular, Pengrowth may be required to incur significant costs to comply with future regulations to reduce greenhouse gas and other emissions.
- Regulations surrounding the fracture stimulation of wells, including increasing disclosure and restrictions, differ and depend on the area of operation. Pengrowth may have to adjust its operational practices, increase compliance and incur additional costs as a result.

- Changes to accounting policies may result in significant adjustments to Pengrowth's financial results, which could negatively impact Pengrowth's business, including increasing the risk of failing a financial covenant contained within the credit facility or term debt.

Risks associated with Operations

- The marketability of Pengrowth's production depends in part upon the availability, proximity and capacity of gathering systems, pipelines, rail lines and processing facilities. Operational or economic factors may result in the inability to deliver the products to market.
- Competition for properties could drive the cost of acquisitions up and expected returns from the properties down.
- Timing of oil and gas operations is dependent on gaining timely access to lands. Consultations, that are mandated by governing authorities, with all stakeholders (including surface owners, First Nations and all interested parties) are becoming increasingly time consuming and complex, and have a direct impact on cycle times.
- Limitations on the availability of specialized equipment, goods and services, during periods of increased activity within the oil and gas sector, may adversely impact timing of operations.
- Oil and gas operations can be negatively impacted by certain weather conditions, including floods, forest fires and other natural events, which may restrict production and/or delay drilling activities.
- A significant portion of Pengrowth's properties are operated by third parties whereby Pengrowth has less control over the pace of capital and operating expenditures. If these operators fail to perform their duties properly, or become insolvent, Pengrowth may experience interruptions in production and revenues from these properties or incur additional liabilities and expenses as a result of the default of these third party operators.
- Geological and operational risks affect the quantity and quality of reserves and the costs of recovering those reserves. Pengrowth's actual results will vary from the reserve estimates and those variations could be material.
- Oil and gas operations carry the risk of damaging the local environment in the event of equipment or operational failure. The cost to remediate any environmental damage could be significant.
- Delays in business operations could adversely affect the market price of the common shares.
- During periods of increased activity within the oil and gas sector, the cost of goods and services may increase substantially and it may be more difficult to hire and retain staff and the cost for skilled labour may increase substantially.
- Attacks against facilities, or the threat thereof, may have an adverse impact on Pengrowth and the implementation of security measures as a precaution against possible attacks would result in increased cost to Pengrowth's business.
- Actual production and reserves will vary from estimates, and those variations could be material and may negatively affect the market price of the common shares.
- Delays or failure to secure regulatory approvals for projects may result in capital being spent with reduced economics, reduced or no further reserves being booked, and reduced or no associated future production and cash flow.
- The Corporation has substantial future asset retirement obligations. There is a risk that the magnitude of these payments may be larger than expected and that the timing of such payments may accelerate. Either of these factors could increase financial costs for the Corporation.
- The performance and results of a thermal project such as Lindbergh is dependent on the ability of the steam to access the reservoir and efficiently move additional heavy oil that would otherwise remain trapped within the reservoir rock. The amount and cost of steam required, the additional oil recovered, the quality of the oil produced, the ability to recycle produced water into steam and the ability to manage costs will determine the economic viability for a thermal project.
- The success of a thermal project such as Lindbergh will depend, in part, on Pengrowth's ability to sell the production at a desirable price. Current transportation and refining constraints have resulted in a volatile price environment with a substantial discount (differential) being paid for heavy oil and bitumen.

Risks associated with Strategy

- Capital re-investment on Pengrowth's existing assets may not yield the expected benefits and related value creation. Drilling opportunities may prove to be more costly or less productive than anticipated. In addition, the dedication

of a larger percentage of Pengrowth's cash flow to such opportunities may reduce the funds available for dividend payments to shareholders. In such an event, the market value of the common shares may also be adversely affected.

- Pengrowth's oil and gas reserves will be depleted over time and the level of cash flow from operations and the value of Pengrowth's common shares could materially decrease if reserves and production are not replaced. The ability to replace production depends on the amount of capital invested and success in developing existing reserves, acquiring new reserves and financing this development and acquisition activity within the context of the capital markets.
- Incorrect assessments of value at the time of acquisitions could adversely affect the value of Pengrowth's common shares.
- The market price of the common shares could be adversely affected by unforeseen title defects.

Asset Concentration Risks

- With the sale of over \$1.3 billion of assets since 2012, in part to fund the first commercial phase of Lindbergh, Pengrowth's assets have become much less diversified and increasingly concentrated in one project, product type (bitumen) and one area/formation. A failure to execute at Lindbergh or any of the Corporation's remaining core properties could have a significant adverse effect on Pengrowth.

Foreign Currency Risk

- Pengrowth has substantial exposure to the U.S. dollar. Any decrease in the Canadian dollar relative to the U.S. dollar results in an increase in the Canadian dollar equivalent of Pengrowth's U.S. dollar denominated term debt as Pengrowth reports and prepares its covenant calculations in Canadian dollars. A significant decrease in the value of the Canadian dollar relative to the U.S. dollar could cause Pengrowth to be in violation of its debt covenants resulting in Pengrowth being in default under its borrowing agreements.

General Business Risks

- Investors' interest in the oil and gas sector may change over time which would affect the availability of capital and the value of Pengrowth common shares.
- Pengrowth is subject to a variety of information technology and system risks, including potential breakdown, invasion, virus, cyber-attack, cyber-fraud, security breach, and destruction or interruption of our information technology systems by third parties or insiders which could lead to corruption or exposure of confidential, fiduciary or proprietary information, interruption to communications or operations or disruption to our business activities or our competitive position. It could also result in material financial loss, regulatory action and sanctions, reputational harm and/or legal liability, which, in turn, could materially adversely affect our business, financial condition or profitability.
- Inflation may result in escalating costs, which could impact dividends and the value of Pengrowth's common shares.
- Canadian / U.S. exchange rates influence revenues and, to a lesser extent, operating and capital costs. Pengrowth is also exposed to foreign currency fluctuations on the U.S. dollar denominated term debt for both interest and principal payments.
- Failure to receive regulatory approval or the expiry of the rights to explore for E&E assets could lead to the impairment of E&E assets.

These factors should not be considered exhaustive. Additional risks are outlined in the AIF of the Corporation which is available on SEDAR at www.sedar.com.

ACCOUNTING PRONOUNCEMENTS ADOPTED

There were no new or amended accounting standards adopted during the twelve months ended December 31, 2016.

ACCOUNTING PRONOUNCEMENTS NOT YET ADOPTED

In May 2014, the IASB issued IFRS 15 Revenue from Contracts with Customers ("**IFRS 15**"). The new standard is effective for annual periods beginning on or after January 1, 2018. Earlier application is permitted. The standard contains a single model that applies to contracts with customers and two approaches to recognising revenue: at a point in time or over time. The model features a contract-based five-step analysis of transactions to determine whether, how much and when revenue is recognized. New estimates and judgmental thresholds have been introduced, which may affect

the amount and/or timing of revenue recognized. The new standard applies to contracts with customers. It does not apply to insurance contracts, financial instruments or lease contracts, which fall in the scope of other IFRSs.

Pengrowth intends to adopt IFRS 15 in its Consolidated Financial Statements for the annual period beginning on January 1, 2018. Pengrowth is currently evaluating and documenting the impact, if any, that the adoption of this standard will have on its financial statements.

In July 2014, the IASB issued the complete IFRS 9 ("**IFRS 9 (2014)**"). The mandatory effective date of IFRS 9 is for annual periods beginning on or after January 1, 2018 and must be applied retrospectively with some exemptions. Early adoption is permitted. The restatement of prior periods is not required and is only permitted if information is available without the use of hindsight. IFRS 9 (2014) introduces new requirements for the classification and measurement of financial assets. Under IFRS 9 (2014), financial assets are classified and measured based on the business model in which they are held and the characteristics of their contractual cash flows. The standard introduces additional changes relating to financial liabilities. It also amends the impairment model by introducing a new 'expected credit loss' model for calculating impairment. Pengrowth does not anticipate any material changes in the carrying value of its financial instruments nor from the credit loss impairment model upon adoption of IFRS 9.

IFRS 9 (2014) also includes a new general hedge accounting standard which aligns hedge accounting more closely with risk management. This new standard does not fundamentally change the types of hedging relationships or the requirement to measure and recognize ineffectiveness; however it will provide more hedging strategies that are used for risk management to qualify for hedge accounting and introduce more judgment to assess the effectiveness of a hedging relationship. Special transitional requirements have been set for the application of the new general hedging model. Pengrowth does not currently apply hedge accounting and does not intend to apply hedge accounting to its existing risk management contracts.

In January 2016, the IASB issued the complete IFRS 16 Leases ("**IFRS 16**") which replaces IAS 17, Leases. The effective date of IFRS 16 is for annual periods beginning on or after January 1, 2019 and early adoption is permitted. Under IFRS 16, a single recognition and measurement model will apply for lessees which will require recognition of assets and liabilities for most leases. Pengrowth is currently evaluating the impact that the adoption of this standard will have on its financial statements.

DISCLOSURE AND INTERNAL CONTROLS

As a Canadian reporting issuer with securities listed on both the TSX and the NYSE, Pengrowth is required to comply with Multilateral Instrument 52-109 - Certification of Disclosure in Issuers' Annual and Interim Filings, as well as the Sarbanes Oxley Act ("**SOX**") enacted in the United States. Both the Canadian and U.S. certification rules include similar requirements where both the Chief Executive Officer ("**CEO**") and the Chief Financial Officer ("**CFO**") must assess and certify as to the effectiveness of the disclosure controls and procedures as defined in Canada by Multilateral Instrument 52-109 - Certification of Disclosure in Issuers' Annual and Interim Filings and in the United States by Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended.

The CEO, Derek Evans, and the CFO, Christopher Webster, evaluated the effectiveness of Pengrowth's disclosure controls and procedures for the year ending December 31, 2016. This evaluation considered the functions performed by its Disclosure Committee, the review and oversight of all executive officers and the Board, as well as the process and systems in place for filing regulatory and public information. Pengrowth's established review process and disclosure controls are designed to provide reasonable assurance that all required information, reports and filings required under Canadian securities legislation and United States securities laws are properly submitted and recorded in accordance with those requirements.

Based on that evaluation, the CEO and CFO concluded that the design and operation of Pengrowth's disclosure controls and procedures were effective at the reasonable assurance level as at December 31, 2016, to ensure that information required to be disclosed by us in reports that we file under Canadian and U.S. securities laws is gathered, recorded, processed, summarized and reported within the time periods specified under Canadian and U.S. securities laws and is accumulated and communicated to the management of Pengrowth Energy Corporation, including the CEO and CFO, to allow timely decisions regarding required disclosure as required under Canadian and U.S. securities laws.

It should be noted that while Pengrowth's CEO and CFO believe that Pengrowth's disclosure controls and procedures provide a reasonable level of assurance that they are effective, they do not expect that Pengrowth's disclosure controls and procedures or internal control over financial reporting will prevent all errors and fraud. A control system, no matter

how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

INTERNAL CONTROL OVER FINANCIAL REPORTING

Pengrowth's management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended and in Canada as defined in Multilateral Instrument 52-109 - Certification of Disclosure in Issuers' Annual and Interim Filings. Pengrowth's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of Pengrowth's financial reporting and the preparation of Pengrowth's Consolidated Financial Statements for external purposes in accordance with IFRS for note disclosure purposes. Pengrowth's internal control over financial reporting includes those policies and procedures that: pertain to the maintenance of records that in reasonable detail accurately and fairly reflect Pengrowth's transactions and disposition of the assets; provide reasonable assurance that transactions are recorded as necessary to permit preparation of Pengrowth's Consolidated Financial Statements in accordance with IFRS and that receipts and expenditures of Pengrowth's assets are being made only in accordance with authorizations of Pengrowth's management and directors; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of Pengrowth's assets that could have a material effect on Pengrowth's Consolidated Financial Statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Pengrowth's management, with the participation of Pengrowth's principal executive officer and principal financial officer, evaluated the effectiveness of Pengrowth's internal control over financial reporting as of December 31, 2016. In making this evaluation, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("**COSO**") in Internal Control-Integrated Framework (2013).

Based on Pengrowth's evaluation, management concluded that Pengrowth's internal control over financial reporting was effective as of December 31, 2016.

The effectiveness of internal control over financial reporting as of December 31, 2016 was audited by KPMG LLP, an independent registered public accounting firm, as stated in their attestation report, which is included with Pengrowth's audited Consolidated Financial Statements for the year ended December 31, 2016. No changes were made to Pengrowth's internal control over financial reporting during the year ending December 31, 2016 that have materially affected, or are reasonably likely to materially affect, the internal controls over financial reporting.