

The following Management's Discussion and Analysis ("MD&A") is dated March 21, 2017 and should be read in conjunction with the audited consolidated financial statements and accompanying notes of Alvopetro Energy Ltd. ("Alvopetro" or the "Company") as at and for the years ended December 31, 2016 and 2015. Additional information for the Company, including the Annual Information Form ("AIF"), can be found on SEDAR at www.sedar.com or at www.alvopetro.com. This MD&A contains financial terms that are not considered measures under International Financial Reporting Standards ("IFRS") and forward-looking statements. As such, the MD&A should be used in conjunction with Alvopetro's disclosure under the headings "*Non-GAAP Measures*" and "*Forward Looking Information*" at the end of this MD&A.

All amounts contained in this MD&A are in United States dollars ("USD"), unless otherwise stated and all tabular amounts are in thousands of United States dollars, except as otherwise noted.

MANAGEMENT'S DISCUSSION AND ANALYSIS

OVERVIEW

Description of Business

Alvopetro Energy Ltd. ("Alvopetro" or "the Company") is engaged in the exploration, development and production of hydrocarbons in Brazil. Alvopetro is a publicly traded company listed on the TSX Venture Exchange and was incorporated under the *Business Corporations Act* (Alberta) on September 25, 2013 as 1774501 Alberta Ltd. and subsequently changed its name to Alvopetro Energy Ltd. on November 19, 2013. Alvopetro is engaged in the exploration for, and the acquisition, development and production of, hydrocarbons in the Recôncavo, Tucano and Camamu-Almada onshore Brazil. Alvopetro holds interests in three producing fields and 14 exploration blocks comprising 140,509 gross acres (123,313 net acres) onshore Brazil.

Strategy

Alvopetro Energy Ltd.'s vision is to be the premier independent exploration and production company in Brazil, maximizing shareholder value by applying innovation to underexploited opportunities. Our strategy is to focus on three core opportunities including lower risk development drilling on our mature fields, shallow conventional exploration, and the development of the significant hydrocarbon potential present in our deep Gomo tight-gas resource play. Our efforts in the near-term are concentrated on building a natural gas business by finalizing a unitization agreement and securing a gas sales contract for our Caburé gas field which includes our 197(2) and 198(A1) discoveries.

SELECTED QUARTERLY RESULTS

	Three months ended December 31,		Twelve months ended December 31,	
	2016	2015	2016	2015
Financial				
(\$000s, except where noted)				
Oil sales	208	116	561	535
Funds flow from operations ⁽¹⁾	(1,006)	(1,017)	(4,695)	(4,966)
Per share – basic and diluted (\$) ⁽²⁾	(0.01)	(0.01)	(0.06)	(0.06)
Net loss	(371)	(9,797)	(12,578)	(12,424)
Per share – basic and diluted (\$) ⁽²⁾	-	(0.12)	(0.15)	(0.15)
Capital and other asset expenditures	708	1,610	8,394	12,202
Total assets	77,052	84,284	77,052	84,284
Debt	-	-	-	-
Net working capital surplus ^{(1) (3)}	17,055	29,405	17,055	29,405
Common shares outstanding, end of year (000s)				
Basic	85,167	85,167	85,167	85,167
Diluted ⁽²⁾	92,041	92,010	92,041	92,010
Operations				
Operating netback (\$/bbl) ⁽¹⁾				
Brent benchmark price	51.13	44.71	45.04	53.64
Discount	(8.82)	(8.41)	(8.64)	(10.39)
Sales price	42.31	36.30	36.40	43.25
Transportation expenses	(2.24)	(2.50)	(2.14)	(2.99)
Realized sales price	40.07	33.80	34.26	40.26
Royalties and production taxes	(4.48)	(3.13)	(3.83)	(3.07)
Production expenses	(34.58)	(56.32)	(74.82)	(70.49)
Operating netback	1.01	(25.65)	(44.39)	(33.30)
Average daily crude oil production (bopd)	53	35	42	34

Notes:

- (1) Non-GAAP measure. See “Non-GAAP Measures” section within this MD&A.
- (2) Consists of outstanding common shares and stock options of the Company.
- (3) Includes current restricted cash of \$0.1 million (December 31, 2015 - \$2.3 million) and assets held for sale of \$0.4 million (December 31, 2015 - \$nil).

HIGHLIGHTS AND SIGNIFICANT TRANSACTIONS FOR THE FOURTH QUARTER OF 2016

- In the fourth quarter of 2016, our production increased to 53 bopd, a 152% increase from the 21 bopd average in the third quarter of 2016 as both our 182(B1) well and our Bom Lugar well were online for most of the quarter. As a result of increased production volumes and reduced production expenses, the Company achieved a positive operating netback of \$1.01 per barrel in the quarter.
- Capital and other asset expenditures of \$0.7 million in the fourth quarter included \$0.3 million for site construction and other preparatory costs for our 198(A1) well which was drilled in January 2017 and capitalized G&A of \$0.2 million.
- We reported a net loss of \$0.4 million in the fourth quarter due to negative funds flow from operations of \$1.0 million and a \$0.3 million impairment charge in respects of costs incurred in 2016 on our 182(B1) well, offset by a deferred tax recovery of \$1.1 million. The negative funds flow from operations included \$0.2 million in E&E expenditures on relinquished blocks.
- Our cash, restricted cash and working capital resources total \$17.1 million as at December 31, 2016, including \$17.8 million of cash and cash equivalents, \$0.1 million of current restricted cash and assets held for sale of \$0.4 million relating to anticipated sales of equipment inventory in 2017.

ADDITIONAL HIGHLIGHTS AND SIGNIFICANT TRANSACTIONS FOR 2016

- Capital and other asset expenditures decreased to \$8.4 million in 2016, compared to \$12.2 million in 2015. During the year the Company drilled the 170(B1) well and the 256(A1) well, incurring costs of \$2.4 million and \$3.3 million respectively. Additional capital expenditures included facility and workover costs at the 182(B1) well of \$0.7 million.
- In September 2016, we entered into a farmout agreement to transfer a 95% interest in Block 107 to an independent third party (the "Farmee") in exchange for a \$0.3 million cash payment and an agreement by the Farmee to undertake the necessary work commitments on the block. Upon completion of the work commitments on the block, we will be entitled to exchange our 5% participating interest for a 5% gross-overriding royalty ("GORR") and, in the event of drilling success on Block 107, a 5% GORR on an adjacent block held by the Farmee.
- The net loss of \$12.6 million included \$7.8 million in impairment charges, largely relating to impairment charges on Block 170 and Block 256 due to the lack of discovery of any commercial quantities of oil or gas on wells drilled on these blocks in 2016.
- Total assets decreased 9% from 2015 largely as a result of the \$7.8 million impairment charge, offset by the appreciation in Brazilian real ("BRL") denominated asset balances due to the 17% increase in the BRL relative to the USD in 2016.

RECENT HIGHLIGHTS

- On January 30, 2017, Alvopetro completed drilling the 198(A1) well on Block 198. The well was drilled to a total measured depth of 1,480 metres and satisfies the work commitment associated with the first exploration phase on the block, subject to approval by the National Agency of Petroleum, Natural Gas and Biofuels ("ANP"). In February and March 2017, we tested two intervals of this well. The first zone tested was the deepest sandstone interval, representing 7 metres of potential net pay. During the 48-hour test, this first interval flowed natural gas, on an unstimulated basis, at an average rate of 15,000 m3/d (0.5 MMcfpd or 89 boepd). The second interval tested represented 21 metres of potential net pay. Over the 72-hour test, the well flowed natural gas, on an unstimulated basis, at an average rate of 76,000 m3/d (2.7 MMcfpd or 447 boepd). Pressure transient analysis from the first zone forecasts potential post-stimulation rates indicating deliverability of 835 Mcfpd (139 boepd) after three months of continuous production and 693 Mcfpd (116 boepd) after one year of continuous production. The Company is awaiting pressure transient analysis from the second zone, which was our primary target in this well.
- The 198(A1) well reached total drilling depth in 10 days and, based on field estimates, the total drilling costs are estimated at \$2.1 million, representing a significant improvement over past wells drilled by Alvopetro.

PETROLEUM AND NATURAL GAS PROPERTIES AND OUTLOOK

Alvopetro holds interests in three producing fields and 14 exploration blocks, comprising 140,509 gross acres (123,313 net acres) onshore Brazil in three hydrocarbon basins: the Recôncavo, Tucano, and Camamu-Almada. The current exploration assets consist of Blocks 182, 183, 197, 106, 107, 169, 198, 255, 256, 57, 62, 71, and 145 in the Recôncavo Basin and Block 177 in the Tucano Basin and three producing fields (Bom Lugar, Jiribatuba and the 182(B1) well on the Mãe-da-lua field).

Exploration and evaluation ("E&E") assets

Block	Gross Acres	Working Interest	Current Phase Expiry	E&E balance December 31, 2016 (\$000's)	Work Units ⁽¹⁾	Commitment (\$000's)
182	4,807	100%	August 5, 2017	868	-	-
183	7,740	100%	June 11, 2017	12,336	1,000	1,023
197	5,807	100%	January 31, 2017 ⁽³⁾	33,403	-	-
106	7,759	100%	March 1, 2017	146	300	350
T-177	46,505	100%	March 1, 2017	640	1,892	2,206
169	5,280	100%	May 15, 2017	316	1,000	1,166
255	7,734	100%	May 15, 2017	346	1,197	1,396
57	7,752	65%	January 24, 2019	107	303	272
62	7,715	65%	January 24, 2019	90	303	272
71	5,409	65%	January 24, 2019	95	207	186
145	7,734	65%	January 24, 2019	70	303	272
Subtotal – work to be completed on E&E assets				48,417	6,505	7,143
256	7,734	100%	May 15, 2017	-	266	310
107	7,561	5%	March 1, 2017	220	2,000	2,332
198	7,739	100%	May 15, 2017	710	1,000	1,166
Subtotal – work completed/farmed out on E&E assets				930	3,266	3,808
GRAND TOTAL – ALL EXPLORATION BLOCKS⁽⁴⁾				49,347	9,771	10,951

(1) The minimum work units ("UT's") expressed above represent the minimum work to be carried out under the terms of the existing exploration phase of the concession contracts. UT's may be satisfied through, among other things, drilling exploration wells (1,000 work units) and shooting or reprocessing seismic (UT's based on km/km²). UT's are not applicable in Development Assessment Plan ("PAD") phase; however, the Company must notify the ANP of its work plan to be completed during this phase. Block 182 and 197 are currently in the PAD phase, as discussed in further detail below. UT's are expressed at 100% of the commitment, regardless of working interest.

(2) Letters of Credit ("LC's") posted in satisfaction of work units are in excess of USD equivalent amounts for the associated commitments due to foreign exchange margin requirements.

(3) Reflects the current deadline of the PAD phase associated with Block 197. The Company has declared commerciality on the 197(2) discovery on Block 197 and the area associated with this discovery has been renamed the Caburé field with an expiry of December 5, 2043.

(4) The total E&E balance reflected in the table above excludes \$3.7 million of equipment inventory and \$0.2 million of other assets classified as E&E as at December 31, 2016.

9th Brazil Bid Round (Block 182, 183 and 197)

Block 182:

Block 182 was awarded in the 9th Brazil Bid Round and is currently in the PAD phase. Under the terms of the PAD, Alvopetro plans to drill at least one of two identified prospects identified on the block. In February 2017, the ANP extended the PAD expiry date to August 5, 2017. Alvopetro is currently awaiting environmental permits with respect to its prospect on this block.

Activities on this block prior to 2016 include drilling and testing the 182(B1) well in 2015 and a well drilled in 2012. The 182(B1) well was reclassified to property, plant and equipment ("PP&E") when probable reserves were assigned as of December 31, 2015 and was written down to a value of \$nil at the time of reclassification. All costs associated with the well drilled in 2012 were written off in the 2015 financial statements.

Block 183:

Block 183 was acquired through a farm-in agreement signed in May 2013. Alvopetro drilled one well, 183(1), on this block in October 2014. In June 2015, Alvopetro elected to continue to the second exploration phase of this block which extends to June 2017 and requires the Company to drill one additional exploration well. Alvopetro has applied for regulatory approval for hydraulic stimulation of the 183(1) well in order to test the Gomo potential. The license has not been received to date and, in September 2016, Alvopetro requested a suspension to the current phase of Block 183 until it has obtained a license for hydraulic fracturing.

Block 197 (Caburé gas field):

On Block 197, Alvopetro discovered the Caburé gas field with the 197(2) well which was drilled in 2014 and tested in 2015. Alvopetro filed a declaration of commerciality for the 197(2) gas discovery and this was approved by the ANP in January 2017. In January 2017, Alvopetro drilled the 198(A1) well on Block 198 which forms part of this gas discovery. An independent contingent resource report of the Caburé gas field located on Blocks 197 and 198 was completed by DeGolyer and MacNaughton ("D&M"), quantifying Alvopetro's contingent resources at June 30, 2015 with a "low estimate" (1C) of 3.4 million barrels of oil equivalent ("mmboe") and a "best estimate" (2C) of 5.8 million mmboe, and 10% discounted net present value (NPV10) of \$62.9 million (1C) to \$91.3 million (2C). The Company is actively working on the required unitization with the adjacent concession holders and on securing a gas sales agreement in advance of beginning development of the field.

In addition to drilling and testing the 197(2) well, the costs incurred on this block to date include costs related to drilling and testing the 197(1) well in 2014, as well as costs associated with 5.9 km² of 3D seismic and 122.3 km of 2D seismic incurred prior to 2014. Block 197 is currently in the PAD phase. The declaration of commerciality on the 197(2) well "ring fences" this well and separates it from the remainder of the block and the PAD, the beginning of the Development and Production Phase which extends to December 5, 2043. The 197(2) discovery was renamed the Caburé gas field at the time of the declaration of commerciality. The current expiry date of the PAD, which includes all activities on the block other than those within the Caburé gas field, is January 31, 2017. Under the terms of the PAD, Alvopetro is required to test the 197(2) well (which was completed in 2015), perform additional analysis of the 197(1) well and obtain a license for stimulation of the 197(1) well. As a result of continued uncertainty regarding regulations on the use of hydraulic fracturing in Brazil, Alvopetro submitted a request for suspension of the PAD in October 2016.

11th Brazil Bid Round (Blocks 106, 107, and 177)

Blocks 106 and 177:

Block 106 is adjacent to Alvopetro's Bom Lugar oil field. Block 177 is in the up dip position on the edges of the Tucano and Recôncavo Basins. In 2016, Alvopetro received a six-month extension to the first exploration phase of these blocks, extending the expiry date from August 29, 2016 to March 1, 2017. Alvopetro has conventional prospects on these blocks which will meet the required work commitments. However, due to lack of environmental licenses for these prospects, in January 2017, Alvopetro requested a temporary suspension to the phase expiry of these blocks until environmental licenses have been received. Alvopetro plans to drill the 177(A1) well in 2017, assuming timely receipt of the necessary licenses.

Block 107:

Block 107 is adjacent to Alvopetro's Bom Lugar oil field. In September 2016, Alvopetro entered into a farmout agreement with an independent third party (the "Farmee") to transfer a 95% interest in Block 107. Under the terms of the agreement, the Farmee will satisfy the required work commitments on the block. Alvopetro received an upfront cash payment of \$0.3 million and, upon completion of the work commitments, will be entitled to exchange its 5% participating interest for a 5% gross-overriding royalty on Block 107. Pending drilling success on Block 107, the Company will also be entitled to a 5% gross-overriding royalty on an adjacent block held by the Farmee. In 2016, Alvopetro had received a six-month extension to the first exploration phase of this block, extending the expiry date from August 29, 2016 to March 1, 2017. In December 2016, Alvopetro requested an additional six-month extension to the expiry date of this block.

12th Brazil Bid Round (Blocks 169, 198, 255, and 256)

Blocks 169, 198, 255 and 256 were awarded to Alvo Petro in the 12th Brazil Bid Round in 2013 and executed in May 2014. In November 2014, an injunction was issued by a Brazilian Federal Court as part of a legal proceeding filed by the Federal Prosecutor's Office against the ANP, the Federal Government and all operators of 12th Bid Round concession contracts, including Alvo Petro. This injunction was aimed at preventing the ANP and operators from conducting unconventional operations on blocks acquired in ANP's 12th Brazil Bid Round until further studies are carried out by the ANP of the possible environmental impact of drilling of unconventional resources. Alvo Petro filed a successful petition with the Brazilian Federal Court, and as result, in January 2015, the Brazilian Federal Court clarified that Alvo Petro could carry out all conventional activities relating to Alvo Petro's 12th Brazil Bid Round Blocks (Blocks 169, 198, 255 and 256). However, any unconventional operations are currently prohibited on these blocks.

Block 256

Alvo Petro drilled the 256(A1) well, a conventional prospect, in the third quarter of 2016. As no commercial hydrocarbons were discovered, costs incurred to date were impaired to bring the carrying value of the block to \$nil as Alvo Petro expects to relinquish this block.

Block 198

Block 198 is adjacent to Block 197 and part of the Caburé field. In the fourth quarter of 2016, Alvo Petro completed site construction and preliminary work for the drilling program in 2017. Alvo Petro drilled the 198(A1) well in January 2017 and tested the well in February and March 2017. Based on initial test results, the first interval tested flowed natural gas, on an unstimulated basis, at an average rate of 15,000 m³/d (0.5 MMcfpd or 89 boepd) and the second interval tested flowed natural gas, on an unstimulated basis, at an average rate of 78,000 m³/d (2.7 MMcfpd or 447 boepd). The pressure transient analysis from the first zone forecasts potential post-stimulation rates with near well bore damage removed (expected to be achieved using a near well bore acid wash) indicating deliverability of 835 Mcfpd (139 boepd) after three months of continuous production and 693 Mcfpd (116 boepd) after one year of continuous production. The Company is awaiting pressure transient analysis from the second zone, which was our primary target in this well.

Blocks 169 and 255:

Given the current injunction against unconventional operations on 12th Brazil Bid Round Blocks, Alvo Petro plans to request a suspension to the current exploration phase of Blocks 169 and 255.

13th Brazil Bid Round (Blocks 57, 62, 71, and 145)

Alvo Petro was awarded a 65% participating interest in Blocks 57, 62, 71 and 145 in the 13th Brazil Bid Round. Alvo Petro is currently undertaking a detailed review of reprocessed seismic data to advance prospects on these blocks.

Property, plant and equipment ("PP&E") Assets

Field	Gross Acres	Working Interest	Current Phase Expiry	PP&E at December 31, 2016 (\$000's)	Commitment (\$000's) ⁽¹⁾
Bom Lugar	2,238	100%	July 10, 2023	3,562	107
182(B1) well - Mãe-da-lua ⁽²⁾	432	100%	February 22, 2044	490	-
Jiribatuba	563	100%	March 2, 2024	375	107
GRAND TOTAL – ALL PP&E FIELDS⁽³⁾				4,427	214

- (1) The Company is required to post abandonment guarantees with respect to the mature producing fields. The Company has not yet been required to post an abandonment guarantee for the 182(B1) well on the Mãe-da-lua field. The abandonment guarantees are posted locally in Brazil. Under the terms of the agreement, the Company was required to post 50% of cash in satisfaction of each of the Bom Lugar and Jiribatuba guarantees. There is a total of \$0.1 million of restricted cash with respect to these abandonment guarantees as at December 31, 2016.
- (2) In February 2017, the Company declared commerciality on the 182(B1) well, renaming the associated field Mãe-da-lua, and commencing the Development and Production Phase which will extend to February 22, 2044, subject to ANP approval.
- (3) The total PP&E balance reflected in the table above excludes \$0.4 million of corporate assets, including office furniture and fixtures, computer equipment, and operational equipment for use on future exploration and development projects.

Bom Lugar field

The mature Bom Lugar field had average daily production for the year ended December 31, 2016 of 19 bopd (December 31, 2015 – 27 bopd). The field consists of one producing well, one suspended well, and one active water disposal (injector) well. The field has a production battery which is equipped with testing, water separation and trucking facilities. The battery is connected to the producing well, the suspended well, and the injection well. The Company has one oil development prospect on this field as well as two additional exploration prospects. The Company is currently in the Development and Production Phase on this field which extends to 2023.

182(B1) well (Mãe-da-lua field)

The 182(B1) well commenced production on December 19, 2015. The average daily production for the year ended December 31, 2016 was 21 bopd (December 31, 2015 – 1 bopd). The field has a production battery which is equipped with testing, water separation and trucking facilities. The battery is located at the producing well. Probable reserve volumes were assigned to the 182(B1) well in the Company's 2015 independent reserve report and this well was reclassified to PP&E at that time. In February 2017, Alvo Petro declared commerciality on this discovery, beginning the Development and Production Phase which extends to February 22, 2044 and separates this discovery from the rest of Block 182. The discovered field has been renamed the Mãe-da-lua field as part of the declaration of commerciality, subject to ANP approval. Total costs of \$6.8 million had been incurred on this well up to December 31, 2015, the full balance of which was written off at the time of reclassification to PP&E on December 31, 2015. In 2016, Alvo Petro replaced rental facilities with company owned equipment and completed a workover on this well. As a result of reduced forecasted production volumes and commodity prices, the Company recorded an impairment of \$0.3 million in the fourth quarter of 2016 to reduce the carrying value to the estimated recoverable amount of \$0.5 million.

Jiribatuba field

Alvo Petro holds interests in the Camamu-Almada Basin in the Jiribatuba mature field. The Jiribatuba mature field produced from the Sergi formation, which consists of two shut-in wells and one active water disposal (injector) well. The shut-in wells and injector are flow line connected to a production battery which is equipped with testing, water separation and trucking facilities. In 2016, one of the shut-in wells contributed a total of 714 barrels of production, averaging 2 bopd in 2016 (December 31, 2015 – 6 bopd). The well has been shut in since May 2016, awaiting pump repair. The Company has one oil development prospect on this field. The Company is currently in the Development and Production Phase on this field which extends to 2024.

FINANCIAL AND OPERATING REVIEW

Average Daily Production

	Three Months Ended December 31,		Year Ended December 31,	
	2016	2015	2016	2015
Total production (bbls)	4,916	3,196	15,411	12,370
Daily production (bopd)	53	35	42	34

Average daily production in the fourth quarter of 2016 increased to 53 bopd compared to 35 bopd in 2015 due to production from the 182(B1) well which averaged 30 bopd in the fourth quarter of 2016 compared to 4 bopd in 2015 as the well did not commence production until late December 2015. Production in the fourth quarter of 2016 also increased from the 21 bopd average in the third quarter of 2016 as both the Bom Lugar well and the 182(B1) well were offline for part of the third quarter. For the year-ended December 31, 2016, production increased to 42 bopd, a 24% increase over 2015 due to production from the 182(B1) well which averaged 21 bopd in 2016 compared to 1 bopd in 2015 offset by reduced production from the Bom Lugar field which averaged 19 bopd in 2016 compared to 27 bopd in 2015.

Oil Sales

	Three months ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
Brent (\$/bbl)	51.13	44.71	45.04	53.64
Discount (\$/bbl)	(8.82)	(8.41)	(8.64)	(10.39)
Sales Price (\$/bbl)	42.31	36.30	36.40	43.25
Sales price discount as a % of Brent	17%	19%	19%	19%
Oil Sales	208	116	561	535
Transportation	(11)	(8)	(33)	(37)
Total sales, net of transportation expense	197	108	528	498
Realized price (\$/bbl)	40.07	33.79	34.26	40.26

Alvopetro has sales contracts for the Bom Lugar and Jiribatuba fields and the 182(B1) well on the Mãe-da-lua field. Pursuant to the terms of these contracts, a discount is applied to the average Brent price as a fixed cost per barrel under the Bom Lugar contract and a fixed percentage of Brent for the Jiribatuba and 182(B1) contracts. The sales discount of 17% in the fourth quarter is consistent with past quarters in 2016. On a year-to-date basis, the discount is higher as 34% of the total sales volumes in the year were attributable to the first quarter when Brent prices were lower, averaging \$35.08 in the three months ended March 31, 2016 compared to \$48.36 for the last three quarters of 2016.

Oil sales increased 79% in the fourth quarter and 5% in the year ended December 31, 2016 compared to the same periods in 2015. The oil sales increase in the fourth quarter of 2016 is attributable to the 51% increase in daily production rates and the 14% increase in Brent, coupled with reduced discounts attributable to the 182(B1) sales. For the year ended December 31, 2016, despite the 24% increase in the average daily production, the average Brent price declined 16% compared to 2015, resulting in only a 5% increase in oil sales on a year-to-date basis.

Funds Flow from Operations

	Three Months Ended December 31,		Year Ended December 31,	
	2016	2015	2016	2015
Funds flow from operations	(1,006)	(1,017)	(4,695)	(4,966)

The Company had \$1.0 million of negative funds flow from operations in the fourth quarter of 2016. We have reduced per barrel production expenses and realized increased oil sales in the fourth quarter of 2016 compared to 2015, but these improvements to funds flow were offset by exploration and evaluation expenditures on Block 170 subsequent to block relinquishment. Fourth quarter and year-to-date negative funds flow include exploration and evaluation expenditures of \$0.2 million and \$0.4 million, respectively. Alvopetro funds the Company's capital and operating plans from existing cash balances on hand and is not currently dependent on cash flows from operations.

Royalties and Production Taxes

	Three months ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
Royalties and production taxes	22	10	59	38
Percentage of sales (%)	10.6	8.6	10.5	7.1

The mature fields held by Alvopetro are subject to a base 5% government royalty plus an additional 0.5% royalty paid to landowners according to applicable Brazil petroleum laws. All of the exploration blocks held by Alvopetro are subject to a base 10% government royalty plus a 1% landowner royalty. There is an additional 2.5% gross-overriding royalty on Block 182 (including the 182(B1) well on the Mãe-da-lua field) and Block 197.

All royalties are paid based on an ANP minimum reference price which is typically higher than the realized sales price. Royalties and production taxes include all Social Integration Program ("PIS") taxes and Social Assistance Contribution ("COFINS") paid on oil sales at a combined rate of 9.25%, offset by credits on available expenses. The Company currently has sufficient PIS and COFINS credits to offset any amounts owing.

Royalties as a percentage of sales increased in both the fourth quarter and year ended December 31, 2016 compared to 2015 due to production from the 182(B1) well which has a higher overall royalty rate.

Production Expenses

	Three months ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
Production expenses by type:				
Personnel costs	81	115	347	488
Production facilities rental	-	22	277	22
Other fixed costs	60	9	238	141
Variable costs	29	32	165	218
Workover costs	-	2	126	3
Total production expenses	170	180	1,153	872
Production expenses per barrel:				
Personnel costs	16.47	35.98	22.52	39.45
Production facilities rental	-	6.88	17.97	1.78
Other fixed costs	12.21	2.82	15.44	11.40
Variable costs	5.90	10.01	10.71	17.62
Workover costs	-	0.63	8.18	0.24
Total production expenses per bbl (\$)	34.58	56.32	74.82	70.49

Production expenses for the fourth quarter decreased 6% compared to the same period in 2016; however, on a per barrel basis costs have decreased 39% largely as a result of personnel cost reductions and the elimination of facilities rental costs. On a year-to-date basis, production expenses increased \$0.3 million, due to workover costs for the producing well on the Bom Lugar field and costs associated with the production facilities rental contract for the 182(B1) well. The Company ended this rental contract in May 2016.

General and Administrative (“G&A”) Expenses

G&A Expenses, by type:	Three months ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
Personnel	651	642	2,937	3,345
Travel	40	84	169	396
Office and IT costs	103	138	457	602
Professional fees	148	185	633	741
General corporate costs	92	121	451	607
Gross G&A	1,034	1,170	4,647	5,691
Capitalized G&A	(246)	(225)	(1,124)	(1,130)
G&A expenses	788	945	3,523	4,561

The majority of the Company’s G&A relates to personnel costs, representing over 60% of total gross G&A. General corporate costs include such items as public company costs and insurance. The Company’s Gross G&A has declined \$0.1 million in the three months ended December 31, 2016 and \$1.0 million in the year ended December 31, 2016 compared to the same periods in 2015. The Company has implemented cost savings initiatives to reduce costs largely with respect to personnel, travel, office and IT costs. A large portion of these savings were offset by the strengthening BRL in the fourth quarter of 2016 compared to the fourth quarter of 2015 and the first and second quarters in 2016.

Cash and Cash Equivalents and Restricted Cash

	As at	
	December 31, 2016	December 31, 2015
Cash and cash equivalents	17,788	28,733
Restricted cash – current	108	2,288
Total cash and restricted cash	17,896	31,021

The Company has a credit support facility (the “Facility”) with a Canadian bank for up to \$45.0 million Canadian dollars (“CAD”). This Facility allows for the issuance of LC’s and letters of guarantee in support of the financial guarantees required by the ANP for Alvo Petro’s work commitments under the terms of its concession contracts. Letters of credit and letters of guarantee issued under the Facility may be supported by either cash collateral posted by Alvo Petro or through an Account Performance Security Guarantee from Export Development Canada (“EDC”). EDC supports up to \$15.5 million of Alvo Petro’s LC’s issued under the Facility.

As at December 31 2016, the total amount of LC’s issued under the Facility was \$14.1 million (December 31, 2015 - \$17.6 million), the full balance of which was satisfied by EDC (December 31, 2015 - \$15.3 million). LC’s supported by restricted cash as at December 31, 2015 were released during the first quarter of 2016. The current restricted cash as at December 31, 2016 relates to abandonment guarantees for the Bom Lugar and Jiribatuba fields. These abandonment guarantees are posted locally in Brazil and are not covered by the Facility or by EDC.

LC’s supported by EDC at December 31, 2016 include \$5.0 million for commitments which have now been met, subject to ANP approval. This includes a \$0.4 million LC for the work commitment on Block 256, satisfied with the 256(A1) well drilled in the third quarter of 2016, a \$3.1 million LC for the work commitment on Block 107, which was farmed out to a third party in the third quarter of 2016, and a \$1.5 million LC for the work commitment on Block 198, satisfied with the 198(A1) well drilled subsequent to December 31, 2016.

Additional letters of credit and letters of guarantee, and any required accompanying cash collateralization, will be issued and posted, as applicable and as required, for any additional work commitments assumed by Alvo Petro within Brazil. To the extent EDC coverage is limited in the future for any new LC’s or for any existing LC’s requiring extension to the expiry date, the Company would be required to post cash collateral to support existing work commitments in Brazil.

Foreign Exchange

The Company's reporting currency is the USD and its functional currencies are the USD and the BRL. Substantially all costs incurred in Brazil are in BRL's and the Company incurs head office costs in both USD and CAD. In each reporting period, the change in the values of the BRL and the CAD relative to the Company's reporting currency are recognized. The period end rates used to translate the Company's BRL and CAD denominated financial statement items for the reporting periods as specified are as follows:

	December 31, 2016	As at September 30, 2016	December 31, 2015	% Change in Period	
				Q4 2016	2016
Rate at end of period:					
U.S. dollar / Brazilian real	3.259	3.246	3.904	0.4%	-16.5%
U.S. dollar / Canadian dollar	1.343	1.312	1.384	2.4%	-3.0%

Head office transactions in CAD are recognized at the rates of exchange prevailing at the date of the transactions. At the end of each reporting period, monetary assets and liabilities are translated at the exchange rate in effect at the reporting period date. Non-monetary assets, liabilities, revenues and expenses are translated at transaction date exchange rates. Exchange gains or losses are included in the determination of net loss as foreign exchange gains or losses.

The assets and liabilities of Alvo Petro's Brazilian subsidiaries are translated to USD at the exchange rate on the reporting period date. The income and expenses of our Brazil operations are translated to USD at the exchange rates on the date of the relevant transactions. All resulting foreign currency differences are recorded in other comprehensive income (loss) in our consolidated statements of operations and comprehensive loss. The BRL appreciated 17% relative to the USD from December 31, 2015 to December 31, 2016 but declined 0.4% in the fourth quarter of 2016 resulting in a \$5.5 million other comprehensive gain for the year ended December 31, 2016 and a \$1.2 million other comprehensive loss for the three months ended December 31, 2016.

As a significant portion of the Company's expenditures are denominated in CAD and BRL, the Company is exposed to fluctuations in these currencies relative to the USD which may have a material impact on costs in the future. In 2016, the 17% increase in the BRL relative to the USD resulted in increased USD equivalent production expenses and G&A expenses as well as capital expenditures.

Share-Based Compensation (Recovery) Expense

	Three months ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
Share based compensation (recovery) expense	(9)	100	80	367

Share-based compensation expense is a non-cash expense that is based on the fair value of stock options granted and amortized over the vesting period of the options. Under Alvo Petro's Stock Option Plan there were 6.9 million stock options outstanding at December 31, 2016 compared to 6.8 million outstanding at December 31, 2015. Despite a consistent number of stock options outstanding, overall share-based compensation expense has declined in both the three and twelve months ended December 31, 2016. In the fourth quarter of 2016, a share-based compensation recovery was realized. A total of 0.9 million of options were forfeited and cancelled in the period, of which 0.5 million were unvested, resulting in a recovery of previously expensed amounts. On a year-to-date basis, share-based compensation expense was \$0.1 million, a decrease of 73% from 2015. In addition to the fourth quarter option cancellations, there were an additional 1.5 million options cancelled in the first quarter of 2016, of which 0.7 million were unvested, resulting in reduced share-based compensation expense in that period and on a year-to-date basis. Also contributing to lower share-based compensation expense was the decline in the Company's share price, which results in lower estimated fair value assigned to new stock options granted.

Depletion, Depreciation and Accretion

	Three months ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
Depletion and depreciation (DD&A)	104	108	416	429
Accretion on decommissioning liabilities	9	16	28	72
Total	113	124	444	501

Included in the depletion computation for our producing assets was \$7.5 million (December 31, 2015 - \$8.9 million) of estimated future development costs for undeveloped proved plus probable reserves. Despite increased production in both the three and twelve months ended December 31, 2016 compared to the same periods in 2015, as a result of the reduction in future development costs, depletion expense was consistent. The decrease in accretion expense in the fourth quarter and on a year-to-date basis is as a result of a revision to the estimated decommissioning liability recognized in the fourth quarter of 2015.

Impairment

	Three months ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
Impairment losses – PP&E				
Bom Lugar	-	556	-	1,524
182(B1) well/ Mãe-da-lua field	292	-	292	-
Total PP&E impairment loss	292	556	292	1,524
Impairment losses – E&E				
Block 170	-	4,096	2,975	4,096
Block 256	-	-	4,392	-
Block 182	-	7,167	-	7,167
Other	51	251	164	251
Total E&E impairment loss	51	11,514	7,531	11,514
Total Impairment	343	12,070	7,823	13,038

The Company recognized an impairment on costs incurred with respect to the 182(B1) well on the Mãe-da-lua field in 2016. The carrying amount of this asset had been written down to \$nil as at December 31, 2015 on the reclassification from E&E to PP&E, contributing to \$6.8 million of the \$7.2 million impairment charge to Block 182 on the 2015 financial statements. As a result of capital spending on this well in 2016 and a reduction in forecasted production rates and commodity prices, an additional impairment charge of \$0.3 million was recognized in the fourth quarter of 2016. Other impairment charges in the fourth quarter of 2016 relate primarily to equipment inventory write-downs as a result of anticipated sales in 2017.

The Company had also recognized impairment charges on Block 170 in the first quarter of 2016 and Block 256 in the third quarter of 2016 due to the lack of discovery of any commercial quantities of oil or gas on wells drilled in 2016 and the lack of future prospectivity on these blocks. All costs incurred up to December 31, 2015 on Block 170 had been written off in the fourth quarter of 2015. Block 170 was relinquished to the ANP on March 29, 2016 and all costs incurred subsequent to this date were recorded directly as exploration and evaluation expenditures and are included in net loss on the consolidated statements of operations and comprehensive loss. Other impairment charges recognized in the twelve months ended December 31, 2016 relate primarily to equipment inventory write-downs.

The impairment at Bom Lugar recognized in 2015 was primarily attributable to the decline in forecasted commodity prices. No additional impairment or a reversal of the past impairment charges was recognized in the 2016 financial statements.

Determining the recognition and the amount of any impairment requires significant judgment with respect to various factors including, but not limited to, forecasted commodity prices, future development costs, future production rates, future operating

costs, timing of future expenditures, capital constraints and development plans. Changes in these judgments, estimates and assumptions may result in a material change in the impairment recognized.

Taxes

	Three months ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
Current income tax expense	-	-	-	-
Deferred income tax recovery	(1,061)	(3,002)	(330)	(6,135)
Total income tax recovery	(1,061)	(3,002)	(330)	(6,135)

The statutory corporate tax rate in Brazil is 34%. This is comprised of a basic 15% corporate income tax, plus 10% surtax and a 9% social contribution tax. As the Company recognized a net loss in all periods, no current tax expense was recognized in 2015 or 2016.

The deferred tax recovery for the fourth quarter and the year-ended December 31, 2016 is largely as a result of an increase in the unrecognized deferred tax asset in both Canada and Brazil as well as foreign currency fluctuations on BRL denominated tax pools. An overall deferred tax asset of \$10.1 million exists at December 31, 2016, \$9.6 million attributable to Brazil operations and \$0.5 million attributable to Canadian operations. The benefit of this overall deferred tax asset has not been recognized for accounting purposes. The unrecognized deferred tax asset in Brazil increased from the December 31, 2015 balance of \$4.3 million as a result of losses in the year-ended December 31, 2016 and strengthening of the BRL relative to the USD. In addition, as a result of losses in Canada and a decline in the anticipated deferred tax liability associated with unrealized foreign exchange gains, there was an overall deferred tax asset in Canada of \$0.5 million at December 31, 2016, the benefit of which has not been recognized.

Net Loss

The Company reported a net loss for the three and twelve months ended December 31, 2016 of \$0.4 million and \$12.6 million, respectively, compared to a loss of \$9.8 million and \$12.4 million for the same periods in 2015. The loss in the fourth quarter included a deferred tax recovery of \$1.1 million, offset by a \$0.3 million impairment charge to PP&E with respect to the 182(B1) well. The fourth quarter loss in 2015 included a \$12.1 million impairment charge, partially offset by a deferred tax recovery of \$3.0 million. On a year-to-date basis, the 2016 loss is impacted by total impairment of \$7.8 million compared to \$13.0 million in 2015. However, the 2015 loss is reduced due to a deferred tax recovery of \$6.1 million, compared to deferred tax recovery in 2016 of \$0.3 million.

Capital Expenditures

Capital Expenditures by Type	Three months ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
E&E				
Drilling and completions	261	580	6,059	7,868
Inventory purchases	17	116	80	389
Facility & equipment	-	314	2	547
Land, lease, and similar payments	33	246	247	1,014
Capitalized G&A	232	223	983	1,013
Other	122	90	254	390
Total E&E	665	1,569	7,625	11,221
PP&E				
Drilling and completions	14	24	196	310
Facility & equipment	15	-	415	-
Land, lease, and similar payments	-	(3)	3	4
Furniture, fixtures, and equipment	-	10	8	416
Capitalized G&A	14	2	141	117
Other	-	(4)	6	39
Total PP&E	43	29	769	886
Other assets				
Other advances for E&E assets	-	12	-	95
Other assets	-	12	-	95
Total capital expenditures by type	708	1,610	8,394	12,202

Capital Expenditures by Property	Three months ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
E&E				
9 th Brazil Bid Round blocks	129	1,299	3,043	10,204
11 th Brazil Bid Round blocks	50	38	213	203
12 th Brazil Bid Round blocks	386	94	4,157	220
13 th Brazil Bid Round blocks	89	206	132	206
Inventory	17	116	80	388
Costs to be allocated to blocks	(6)	(184)	-	-
Total E&E	665	1,569	7,625	11,221
PP&E				
Bom Lugar	3	7	20	387
Jiribatuba	-	4	1	15
182(B1) well/Mãe-da-lua field	40	-	718	-
Corporate	-	18	30	484
Total PP&E	43	29	769	886
Other assets	-	12	-	95
Total capital expenditures by property	708	1,610	8,394	12,202

Capital expenditures in the fourth quarter of 2016 include \$0.3 million on site construction and other preparatory work for the 198(A1) well which was drilled in January 2017 as well as capitalized G&A costs of \$0.2 million. For the year-ended December 31, 2016, capital expenditures were primarily attributable to drilling costs on the 170(B1) and 256(A1) wells, facility and workover costs on the 182(B1) well and capitalized G&A.

Summary of Annual Results

	2016	2015	2014
Financial			
Oil sales	561	535	1,106
Funds flow from operations ⁽¹⁾	(4,695)	(4,966)	(7,722)
Per share – basic & diluted (\$)	(0.06)	(0.06)	(0.09)
Net loss	(12,578)	(12,424)	(31,709)
Per share – basic & diluted (\$)	(0.15)	(0.15)	(0.37)
Total assets	77,052	84,284	124,557
Total liabilities	3,277	3,552	16,732
Debt	-	-	-
Average daily crude oil production (bopd)	42	34	33

(1) Non-GAAP measure. See “Non-GAAP Measures” section within this MD&A.

The Company’s oil sales decreased in both 2016 and 2015 compared to 2014 due to decreased commodity prices. Brent declined from an average of \$99.51 per barrel in 2014 to \$53.64 in 2015 and \$45.04 in 2016. Average daily production increased in 2016 to 42 bopd due to the 182(B1) well which was brought on production in late 2015. The Company generated negative funds flow from operations in all three years due to minimal cash flows from oil sales relative to production expenses and G&A expenses. Negative funds flow from operations in 2014 was higher than 2015 and 2016 due to a realized foreign exchange loss of \$2.3 million. Net loss in all years included impairment charges on the Company’s E&E and PP&E assets (2014 – \$22.6 million; 2015 – \$13.0 million, 2016 - \$7.8 million).

Total assets have decreased 38% since 2014 primarily due to impairments on both E&E and PP&E as well as reductions in the USD equivalent balances of BRL denominated assets as the BRL declined relative to the USD from a rate of 2.656 at December 31, 2014 to 3.904 at December 31, 2015 and 3.259 at December 31, 2016.

Total liabilities were higher as at December 31, 2014 compared to 2015 and 2016 with the inclusion of \$5.7 million in performance guarantee amounts for four blocks that were relinquished in 2015 and one block that was relinquished in 2016. In addition, the Company had completed drilling the 197(2) well immediately prior to year-end, resulting in additional accounts payable and accrued liabilities relating to costs associated with this well.

Summary of Quarterly Results

	Q4 2016	Q3 2016	Q2 2016	Q1 2016	Q4 2015	Q3 2015	Q2 2015	Q1 2015
Financial								
Oil sales	208	74	126	153	116	97	150	172
Funds flow from operations ⁽¹⁾	(1,006)	(1,155)	(1,309)	(1,225)	(1,017)	(1,240)	(1,352)	(1,357)
Per share – basic & diluted (\$)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
Net loss	(371)	(5,692)	(2,000)	(4,515)	(9,797)	(84)	(980)	(1,563)
Per share – basic & diluted (\$)	-	(0.07)	(0.02)	(0.05)	(0.12)	-	(0.01)	(0.02)
Capital and other asset expenditures	708	3,785	835	3,066	1,610	2,636	6,602	1,354
Operations								
Operating netback (\$/bbl) ⁽¹⁾								
Brent benchmark price	51.13	46.98	46.97	35.08	44.71	51.17	63.50	55.16
Sales price	42.31	38.60	38.47	28.85	36.30	38.52	52.14	45.51
Transportation expenses	(2.24)	(2.09)	(2.44)	(1.89)	(2.50)	(3.18)	(1.74)	(4.23)
Realized sales price	40.07	36.51	36.03	26.96	33.80	35.34	50.40	41.28
Royalties and production taxes	(4.48)	(4.17)	(3.36)	(3.39)	(3.13)	(2.78)	(2.09)	(3.97)
Production expenses	(34.58)	(137.72)	(109.92)	(67.70)	(56.32)	(71.49)	(91.76)	(65.63)
Operating netback	1.01	(105.38)	(77.25)	(44.13)	(25.65)	(38.93)	(43.45)	(28.32)
Average daily crude oil production (bopd)	53	21	36	58	35	27	32	42

Notes:

(1) Non-GAAP measure. See “Non-GAAP Measures” section within this MD&A.

Q4 2016 – The Company’s average daily production increased 152% in the quarter as both the 182(B1) well on the Mãe-da-lua field and the Bom Lugar producing well were on production after being offline for much of the third quarter. As a result of the production increase and the 9% increase in Brent, oil sales increased 181% to \$0.2 million. Increased oil sales combined with reduced production expenses resulted in a positive operating netback of \$1.01 per barrel. Capital expenditures of \$0.7 million included \$0.3 million in site construction and other preparatory work for the 198(A1) well which was drilled in January 2017 and \$0.2 million in capitalized G&A costs. Despite increased oil sales and reduced production and G&A expenses, funds flow from operations increased only \$0.1 million, largely due to E&E expenditures of \$0.2 million incurred in the period on Block 170 which was relinquished in March 2016. The net loss of \$0.4 million was as a result of the negative funds flow from operations as well as a \$0.3 million impairment charge booked to PP&E in relation to the 182(B1) well, offset by a deferred tax recovery of \$1.1 million.

Q3 2016 – The Company completed drilling the 256(A1) well in the quarter. Due to the lack of any commercial discovery of hydrocarbons on this well, the Company recognized an impairment loss on this block of \$4.4 million. Total capital expenditures of \$3.8 million in the quarter included \$2.9 million for costs associated with the 256(A1) well, \$0.3 million for workover and facilities costs on the 182(B1) well and \$0.4 million in capitalized G&A costs. The Company’s average daily production decreased 42% to 21 bopd in the quarter as the 182(B1) well was shut-in for much of the quarter for facilities and workover projects and the producing well on the Bom Lugar field was offline from mid-June to mid-August for a pump replacement. As a result of the decrease in production, oil sales declined 41% in the quarter. Production expenses per barrel were impacted by reduced daily production and increased workover costs on the Bom Lugar field of \$65.73 per barrel. The net loss of \$5.7 million was largely attributable to the impairment loss booked on Block 256 and negative funds flow from operations of \$1.2 million.

Q2 2016 – The Company’s average daily production decreased 38% to 36 bopd in the quarter as the 182(B1) well was shut-in on May 11, 2016 to cancel the production facilities rental contract and replace this equipment with Company owned facilities. The Bom Lugar field production was also reduced in the quarter due to pump issues, which resulted in the well being offline for two weeks at the end of June. As a result of the production declines, oil sales decreased 18% from the first quarter despite the 34% increase in the average Brent price in the quarter. Capital expenditures of \$0.8 million in the quarter included \$0.3 million for facilities work on the 182(B1) well, \$0.2 million for work on the 256(A1) well, and capitalized G&A totaling \$0.2 million.

Q1 2016 – Capital expenditures of \$3.1 million in the quarter were largely attributable to the 170(B1) well. The Company incurred total costs of \$2.4 million on this well in the quarter. Due to the lack of any commercial discovery on this well and consistent with 2015, the Company recognized an impairment loss on this block of \$3.0 million, contributing to the overall net loss in the quarter of

\$4.5 million. Average daily oil production increased 66% from the fourth quarter of 2015 as the 182(B1) well was on production for most of the quarter, contributing an average of 33 bopd. This production increase was partially offset by reduced production from the Bom Lugar field due to maintenance. Despite the increase in daily production, oil sales increased only 32% due to the 22% decline in Brent.

Q4 2015 – The Company realized a 30% increase in its average daily production due to the 182(B1) well, which commenced production in December 2015 contributing 4 bopd in the quarter, and the Jiribatuba field, which was brought back on production in November 2015, contributing 6 bopd in the quarter. These production increases were offset by a small decline from the Bom Lugar field as one producing well was shut-in to transfer equipment to the 182(B1) well. Despite the 30% increase in production, oil sales increased only 20% from the third quarter due to the 13% decline in Brent. Capital expenditures of \$1.6 million included \$0.5 million in site construction and rig mobilization costs for the 170(B1) well and \$0.3 million in initial facilities construction costs for the 182(B1) well. The net loss of \$9.8 million was largely as a result of the \$12.1 million impairment loss recognized on E&E and PP&E assets and negative funds flow from operations of \$1.0 million offset by a deferred tax recovery of \$3.0 million.

Q3 2015 – The Company completed testing the 182(B1) well. Total capital and other asset expenditures were \$2.6 million, including \$1.7 million for testing and facilities costs for this well and capitalized G&A of \$0.2 million. Production decreased 16% from the second quarter as the Jiribatuba well continued to be offline due to road access issues. The lack of production from the Jiribatuba field and the 19% decline in Brent from the second quarter resulted in a 35% decrease in oil sales. As a result of the continued decline in Brent prices, the Company recognized a \$1.0 million impairment loss on the Bom Lugar field. This was more than offset by the recognition of a deferred tax recovery of \$2.5 million, resulting in an overall net loss of \$0.1 million in the quarter.

Q2 2015 – The Company completed drilling the 182(B1) well and completed testing the 197(2) well. Total capital and other asset expenditures were \$6.6 million, including \$5.2 million relating to these projects, \$0.3 million for the acquisition of the remaining working interest in Block 170, and \$0.4 million in capitalized G&A. Production decreased 24% from the first quarter of 2015 due to road access issues at the Jiribatuba field and maintenance on our Bom Lugar well, resulting in a 13% decrease in oil sales, despite the 15% increase in Brent during the quarter. This maintenance work also contributed to higher production expenses and higher production costs per barrel in the quarter.

Q1 2015 – The Company's daily production increased 14% from the previous quarter as a result of workover activities at Jiribatuba late in 2014. The incremental sales from these volumes were more than offset by the decline in Brent oil prices, resulting in lower oil sales. Total capital and other asset expenditures were \$1.4 million. In March 2015, Alvopetro commenced testing the 197(2) well and incurred costs related to civil works in preparation of the Company's next well on Bom Lugar. During the quarter, the USD strengthened quite substantially over the CAD (9%) and the BRL (21%). As a result, the Company recorded a \$0.2 million foreign exchange loss on the Canadian operations (included in net income) and a \$6.7 million loss on the Brazil operations (included in other comprehensive loss).

Commitments and Contingencies

The following is a summary of Alvo Petro's contractual commitments as at December 31, 2016:

Commitments	< 1 Year	1-3 Years	Thereafter	Total
Minimum work commitments ⁽¹⁾				
Block 183	1,023	-	-	1,023
Block 106	350	-	-	350
Block 107 ⁽²⁾	2,332	-	-	2,332
Block 177	2,206	-	-	2,206
Block 169	1,166	-	-	1,166
Block 198 ⁽³⁾	1,166	-	-	1,166
Block 255	1,396	-	-	1,396
Block 256 ⁽⁴⁾	310	-	-	310
Block 57 ⁽⁵⁾	-	272	-	272
Block 62 ⁽⁵⁾	-	272	-	272
Block 71 ⁽⁵⁾	-	186	-	186
Block 145 ⁽⁵⁾	-	272	-	272
Bom Lugar	-	-	107	107
Jiribatuba	-	-	107	107
Total minimum work commitments	9,949	1,002	214	11,165
Office leases ⁽⁶⁾	185	183	-	368
Total commitments	10,134	1,185	214	11,533

Notes:

- (1) Under the terms of the ANP concession contracts for each of our exploration blocks, the Company has commitments which must be completed prior to the applicable phase expiry date. The Company is required to post a performance guarantee with the ANP for all commitments in the table above.
- (2) During the three months ended September 30, 2016, the Company entered into a farmout agreement with respect to Block 107. Under the terms of the agreement, the Farmee is responsible to drill two wells in satisfaction of the work commitments included in the table above. In addition to completion of the work commitments by the Farmee, the farmout is subject to ANP approval and the receipt of environmental permits for the two wells to be drilled by the Farmee. Both of these latter two conditions were satisfied in early 2017.
- (3) Subsequent to December 31, 2016, the Company completed drilling the 198(A1) well in satisfaction of the work commitment in the table above, subject to ANP approval.
- (4) During the three months ended September 30, 2016, the Company completed drilling the 256(A1) well in satisfaction of the work commitment in the table above, subject to ANP approval.
- (5) Alvo Petro holds a 65% interest in each of these blocks and the amounts provided in the table above represent Alvo Petro's share of the related commitments.
- (6) The Company is committed to future minimum payments for office space in Canada and Brazil.

As is customary in the oil and gas industry, we may at times have work plans in place to reserve or earn certain acreage positions or wells. If we do not complete such work plans in a timely manner, the acreage positions or wells may be lost, or penalties may be applied.

The Company currently has no contingent liabilities recorded; however, in the normal course of operations, we may have disputes with industry participants for which we currently cannot determine the ultimate results. The Company has a policy to record contingent liabilities as they become determinable and the probability of loss is more likely than not.

Alvo Petro's activities in Brazil are subject to minimum local content requirements with respect to materials and supplies utilized. The specific local content requirements for the exploration phase were determined during the bidding process for each particular block and are assessed at the phase expiry date. Management undertakes considerable effort to adhere to these requirements; however, there may be circumstances when it is not advantageous or reasonably possible for the Company to do so. If the Company does not meet the local content requirements for a particular phase as specified according to the respective concession contract, a penalty, which varies by concession depending on exploration phase and type of cost, will be incurred. The Company monitors its local content compliance and, as of December 31, 2016, the potential estimated penalty was \$0.2 million (December 31, 2015 - \$0.1 million), which is included in accounts payable and accrued liabilities.

LIQUIDITY AND CAPITAL RESOURCES

At December 31, 2016, Alvopetro's cash and cash equivalents of \$17.8 million and its restricted cash of \$0.1 million were held as follows:

	Total	U.S. Dollar	CAD Dollar⁽¹⁾	Brazil Real⁽¹⁾
Cash held in Canada	17,461	17,306	155	-
Cash held in Brazil	327	-	-	327
Restricted cash - current	108	-	-	108
Total	17,896	17,306	155	435

Notes:

(1) Amounts in the table above denote the U.S. dollar equivalent as at December 31, 2016.

Alvopetro does not currently generate positive cash flow from its operations. Capital expenditures and ongoing G&A and production expenses are funded from existing cash balances. At December 31, 2016, the Company's working capital of \$17.1 million exceeded estimated outstanding commitments of \$11.5 million by \$5.6 million. Exploration work commitments in Brazil are supported by total LC's of \$14.1 million as at December 31, 2016, the full balance of which is currently satisfied through EDC. EDC coverage is reviewed annually and whenever amendments or extensions are required to LC's in place. To the extent some or all of EDC coverage were limited in the future, the Company would be required to post the requisite amount from its cash balance which may impact its ability to fund future capital and operational expenditures.

Alvopetro's primary focus in 2017 is on building a natural gas business from our Caburé gas field which includes both our 197(2) and 198(A1) discoveries. Our \$5 million capital plan for 2017 includes:

- Drilling and testing the 198(A1) well, the bulk of which was completed in January through March 2017;
- Drilling the 177(A1) well, subject to receipt of environmental permits; and,
- Preliminary surveying and permitting work associated with the development of our Caburé gas field.

Our 2017 capital projects are expected to be funded with existing cash balances on hand. Alvopetro achieved savings on general and administrative expenses in 2016 compared to 2015 and we have realized a significant cost reduction on drilling costs with the 198(A1) well which was drilled in early 2017, compared to past Alvopetro wells drilled. These cost savings are expected to have a positive impact on our liquidity and capital resources going forward, providing improved financial flexibility. Future capital expenditures and commitments may be funded through a combination of cash on hand, cash flow from successful operations, assets sales, joint ventures, farmouts, debt, or equity.

The liability for decommissioning obligations of Alvopetro was \$1.4 million as at December 31, 2016. The liability is adjusted each reporting period to reflect the passage of time, with the accretion charged to earnings, and for revisions to the estimated future cash flows, if applicable.

At December 31, 2016 the Company had \$3.7 million of equipment inventory to be utilized for future operations which is included in exploration and evaluation assets in the consolidated statement of financial position.

OUTSTANDING SHARE DATA

The Company is authorized to issue an unlimited number of common shares and preferred shares in one or more series. The aggregate number of Alvopetro common shares and stock options outstanding at March 21, 2017 was 91,761,807 (common shares – 85,166,871, stock options – 6,594,936). There are no preferred shares outstanding.

TRANSACTIONS WITH RELATED PARTIES

Alvopetro has been party to non-material office-related administrative transactions with Touchstone Exploration Inc., a related party of the Company due to common directors, summarized as follows:

	Three months ended December 31,		Year ended December 31,	
	2016	2015	2016	2015
Office rent and related costs	-	39	60	190

The contract was terminated during the three months ended September 30, 2016. As at December 31, 2016 and December 31, 2015, the amount owed by the Company to Touchstone was \$nil.:

RISKS AND UNCERTAINTIES

Alvopetro is exposed to a variety of risks including, but not limited to: a) exploration risk; b) liquidity and financing risks; c) competitive risks within the oil and gas industry; d) operational risks; e) foreign operations risk; f) government regulations, approvals and permitting risks; and g) market risk.

This section presents information about the Company's exposure to each of the above risks, the Company's objectives, policies and processes for measuring and managing risk, and the Company's management of capital. Further quantitative disclosures are included throughout the consolidated financial statements. Investors should carefully consider the following risk factors and the risk factors set forth under the heading "Risk Factors" in our Annual Information Form that can be found on SEDAR at www.sedar.com.

A. Exploration Risk

The Company is exposed to a high level of exploration risk. The business of exploring for, developing or acquiring reserves is capital intensive and is subject to numerous estimates and interpretations of geological and geophysical data. There can be no assurance that Alvopetro will be able to generate and sustain revenue or net income in the future or that the Company's future exploration, development and acquisition activities will result in additional proved reserves. To manage this risk, Alvopetro employs highly experienced geoscientists, uses technology and 3D seismic as primary exploration tools and focuses exploration efforts in known hydrocarbon producing basins. The long-term commercial success of Alvopetro depends on its ability to find, acquire, develop and commercially produce and sell petroleum reserves. To date, the activities relating to the majority of Alvopetro's assets have been exploratory only, which increases the degree of risk substantially as compared to projects in the production stage. The value of Alvopetro's assets will be dependent on discovering hydrocarbon deposits with commercial potential and the ability to market its discoveries. Alvopetro will have nominal earnings to support its ongoing operations and future exploration and development should its properties prove not to be commercially viable or if it is unable to negotiate sales contracts on terms that are acceptable to Alvopetro.

B. Liquidity and Financing Risk

The Company currently funds all capital and operational expenditures with cash balances on hand. The Company's existing properties do not have significant production and the Company has a history of operating losses. Significant capital expenditures may be required for future projects in excess of current cash balances. Moreover, to the extent EDC coverage were limited in the future, existing cash balances may be required in support of LC's for current or future work commitments. There can be no assurance that debt or equity financing, a bank loan facility or cash generated by operations will be available or sufficient to meet these requirements or for other corporate purposes or, if debt or equity financing is available, that it will be on terms acceptable to Alvopetro. The inability of Alvopetro to access sufficient capital for its operations could have a material adverse effect on Alvopetro's business, financial condition, results of operations and prospects, and could result in the delay or indefinite postponement of further exploration, evaluation and development of Alvopetro's properties.

C. Competitive Risks within the Oil and Gas Industry

The oil and gas industry is highly competitive. Competition is particularly intense in the acquisition of prospective oil and gas properties and reserves. Alvopetro's competitive position depends on its geoscience and engineering expertise, its financial resources and its ability to efficiently acquire and develop its reserves. Alvopetro competes with a substantial number of other companies having larger technical staffs and greater financial and operational resources. In Brazil particularly, Petróleo Brasileiro SA ("Petrobras") dominates the majority of the industry, including all aspects of oil and gas exploration, development, transportation and sales. Petrobras, and many other companies in Brazil, not only engage in the acquisition, exploration,

development and production of oil and gas reserves, but also carry on refining operations and market refined products. Alvo Petro competes with Petrobras and other major and independent oil companies and other industries supplying energy and fuel in the marketing and sale of oil and gas to transporters, distributors and end users, including industrial, commercial and individual consumers. Due to Petrobras' position in all aspects of Brazil's energy market, Alvo Petro may encounter challenges with respect to transporting and marketing crude oil and natural gas. Access to pipelines and other transportation infrastructure may be limited and/or the terms on which such access is provided may not be favourable to the Company.

Alvo Petro also competes with other oil and gas companies in attempting to secure drilling rigs and other equipment necessary for drilling and completion of wells. Such equipment may be in short supply from time to time or may not meet the technical specifications required by Alvo Petro in its operations. In addition, equipment and other materials necessary to construct production and transmission facilities may be in short supply. Local content requirements in Brazil greatly reduce the control the Company has with respect to choice of service providers for its exploration and development activities. Finally, companies not previously investing in the oil and gas industry may choose to acquire reserves providing additional competition for Alvo Petro.

D. Operational Risk

Alvo Petro is exposed to a number of operational risks inherent in the industry including accidents, well blowouts, uncontrolled flows, labour strikes and environmental risks. Operational risks are managed using prudent field operating procedures. The Company has an emergency response plan to deal with potential incidents and maintains a comprehensive insurance program to reduce the risk of significant economic loss; however, not all risks can be eliminated. Losses resulting from the occurrence of these risks could have a material adverse impact on the Company's operations.

E. Foreign Operations Risk

Alvo Petro currently has operations in Brazil and from time to time may evaluate additional projects internationally, consequently Alvo Petro will be subject to certain risks, including currency fluctuations and possible political or economic instability. Alvo Petro believes that the state and federal governments in Brazil support the exploration and development of its oil and gas properties by foreign companies. Nevertheless, there is no assurance that future political conditions will not result in the state or federal governments adopting different policies respecting foreign development and ownership of oil and gas, environmental protection and labour relations. Exploration and production activities may be affected in varying degrees by political stability and government regulations relating to the industry.

To help mitigate the risks associated with operating in foreign jurisdictions, the Company seeks to operate in regions where the petroleum industry is a key component of the economy. Alvo Petro believes that management's experience operating in other international jurisdictions helps reduce these risks. Brazil has a long history of democracy and an established legal framework that, in Alvo Petro's opinion, minimizes political risks.

F. Government Regulations, Approvals and Permitting Risks

The Company is subject to extensive governmental and environmental approvals and regulations in its operating jurisdictions. Delays in obtaining regulatory approvals could result in project delays and our inability to meet contractual obligations and commitments. Changes to these regulations could increase the costs of conducting business in these jurisdictions. Environmental risks inherent in the oil and gas industry are subject to increasingly stringent legislation and regulation. The Company operates in accordance with all relevant environmental legislation and strives to minimize the environmental impact of its operations by providing for safety and environmental issues in all of its business plans.

The expanded use of hydraulic fracturing as a recovery technique employed in oil and natural gas drilling has given rise to increased public scrutiny of its environmental aspects, particularly with respect to its potential impact on local aquifers. Alvo Petro may need to utilize hydraulic fracturing in the wells it drills and completes. Alvo Petro believes that the hydraulic fracturing that we may conduct, given the depth and location of the wells and our consistent utilization of good oilfield practices, will be environmentally sound and would not give rise to concerns raised respecting local aquifers. Alvo Petro anticipates that there will be a trend towards changing and increased regulatory requirements concerning hydraulic fracturing in the future, in Brazil and internationally. Changes to, and the increase of, regulatory requirements may impact our business. Specifically, unconventional activities are currently prohibited on Alvo Petro's blocks acquired in the 12th Brazil Bid Round as a result of an injunction issued by a Brazilian

Federal Court in November 2014. Alvopetro has two blocks for which has not yet fulfilled the required minimum work commitments and, as a result, may adversely be affected if the injunction continues.

Alvopetro must fulfill certain minimum work commitments on projects in Brazil. There are no assurances that all of these commitments will be fulfilled within the time frames permitted. As such, Alvopetro may lose certain exploration rights on the blocks affected and may be subject to certain financial penalties that would be levied by the applicable governmental authority. From time to time Alvopetro may request extensions or suspensions to the timeframe allotted for work commitments. Alvopetro has requested extensions or suspensions on certain blocks with expiries in 2017. Although management believes these extensions and suspensions will be approved, there is no assurance that they will be granted.

Alvopetro's existing gas discovery on Blocks 197 and 198 requires unitization with the adjacent resource owner as well as government approval of the unitization agreement or agreements. Future discoveries may also require unitization. To the extent the Company is unable to negotiate a unitization agreement under acceptable terms or is unable to obtain government approval for the unitization, the Company may be unable to commercialize the discovery which may significantly impact the Company's ability to generate future cash flows and could result in a delay or indefinite postponement of the exploration, evaluation and development of Alvopetro's properties.

G. Market Risk

The Company is exposed to normal financial risks inherent within the oil and gas industry, including commodity price risk, exchange rate risk, interest rate risk and credit risk. Crude oil and natural gas prices are influenced by global supply and demand, OPEC policy and worldwide political events. Fluctuations in crude oil and natural gas prices not only affect the Company's cash flows, but may also affect the ability and capacity of future financings for the Company. Management believes it is neither appropriate nor possible to eliminate 100 percent of the Company's exposure to fluctuations in crude oil and natural gas prices. The Company monitors market conditions and may selectively use derivative instruments to reduce exposure to commodity price movements. As the Company is in the early stage of its operations and has cash on hand, it does not depend on its cash flows from oil sales and fluctuations in the price of crude oil are not currently significant to the Company.

Cash and cash equivalents consist of balances on deposit at banks and short term deposits maturing in less than 90 days. Restricted cash consists of cash and cash equivalents and short-term deposits maturing in one year or less. Alvopetro manages credit risk related to short term deposits by investing only in term deposits of investment grade credit rating, and therefore the Company considers these assets to have negligible credit risk. Management believes it is neither appropriate nor possible to eliminate 100 percent of the Company's exposure to these risks. The Board of Directors periodically reviews the results of all risk management activities and all outstanding positions.

All of Alvopetro's expenditures are subject to the effects of inflation and foreign currency fluctuations. Alvopetro is exposed to exchange rate risk as a significant portion of the Company's expenditures will be paid in foreign currencies. Should such foreign currencies strengthen relative to the USD or should the inflation rates increase within Canada or Brazil, Alvopetro could experience a material decrease in its funds flow.

CHANGES IN ACCOUNTING POLICIES INCLUDING INITIAL ADOPTION

New and revised accounting standards

On January 1, 2016, the Company adopted IFRS 11 *Joint Arrangements* which was amended regarding the accounting for the acquisition of an interest in a joint operation that constitutes a business. The adoption of this amendment had no impact on the amounts recorded in the consolidated financial statements.

Standards issued but not yet effective

The Company has reviewed new and revised accounting pronouncements that have been issued but are not yet effective and determined that the following may have an impact on the Company.

Standard and Description	Date of Adoption	Expected Adoption Impact on Consolidated Financial Statements
IAS 7 <i>Statement of Cash Flows</i> - In January 2016, the IASB published amendments to IAS 7 to provide additional disclosures relating to changes in liabilities arising from financing activities, including changes arising from cash flow and non-cash changes.	January 1, 2017	The Company does not expect the amendments to have a material impact on the financial statements.
IFRS 2 <i>Share-based Payment</i> – In June 2016, the IASB issued amendments to IFRS 2 to clarify the classification and measurement of share-based payment transactions.	January 1, 2018	The Company is assessing the effect of this future pronouncement on its financial statements.
IFRS 15 <i>Revenue from Contracts with Customers</i> – The new standard will replace IAS 18 <i>Revenue</i> , IAS 11 <i>Construction Contracts</i> and other revenue related interpretations. The new standard clarifies the principles for recognizing revenue from contracts with customers and provides a model for the recognition and measurement of sales of certain non-financial assets.	January 1, 2018	The Company is assessing the effect of this future pronouncement on its financial statements.
IFRS 9 <i>Financial Instruments</i> – As of July 2015, the IASB completed the final elements of IFRS 9 which supersedes IAS 39 <i>Financial Instruments: Recognition and Measurement</i> . IFRS 9 introduces new models for classification and measurement of financial instruments, hedge accounting and impairment of financial assets.	January 1, 2018	The Company is assessing the effect of this future pronouncement on its financial statements.
IFRS 16 <i>Leases</i> - IFRS 16 was issued January 2016 and replaces IAS 17 <i>Leases</i> . The standard introduces a single lessee accounting model for leases with required recognition of assets and liabilities for most leases.	January 1, 2019	The Company is assessing the effect of this future pronouncement on its financial statements.

Management's Report on Internal Control over Financial Reporting. In connection with National Instrument 52-109 - Certification of Disclosure in Issuer's Annual and Interim Filings ("NI 52-109"), the Chief Executive Officer and Chief Financial Officer of the Company are required to file a Venture Issuer Basic Certificate with respect to the financial information contained in the unaudited interim financial statements and the audited annual financial statements and respective accompanying Management's Discussion and Analysis. The Venture Issuer Basic Certificate does not include representations relating to the establishment and maintenance of disclosure controls and procedures and internal control over financial reporting, as defined in NI 52-109.

Forward-Looking Statements. Certain information provided in this MD&A constitutes forward-looking statements. Specifically, this MD&A contains forward-looking statements relating to future results from operations, projected financial results, future capital and operating costs, future production rates, proposed exploration and development activities, sources of capital, dividend levels, and capital spending levels. Forward-looking statements are necessarily based upon assumptions and judgments with respect to the future including, but not limited to, the success of future drilling, completion, recompletion and development activities, the outlook for commodity markets and capital markets, the performance of producing wells and reservoirs, well development and operating performance, general economic and business conditions, weather and access to drilling locations, the

availability and cost of labour and services, environmental regulation, including regulation relating to hydraulic fracturing and stimulation, the ability to monetize hydrocarbons discovered, the regulatory and legal environment and other risks associated with oil and gas operations. Although we believe that the expectations and assumptions on which the forward-looking statements are based are reasonable, undue reliance should not be placed on the forward looking statements because we can give no assurance that they will prove to be correct. Since forward looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Actual results could differ materially from those currently anticipated due to a number of factors and risks. These include, but are not limited to, risks associated with the oil and gas industry in general (e.g., operational risks in development, exploration and production; delays or changes in plans with respect to exploration or development projects or capital expenditures; the uncertainty of reserve estimates; the uncertainty of estimates and projections relating to production, costs and expenses, reliance on industry partners, availability of equipment and personnel, uncertainty surrounding timing for drilling and completion activities resulting from weather and other factors, changes in applicable regulatory regimes and health, safety and environmental risks), commodity price and exchange rate fluctuations and general economic conditions. Certain of these risks are set out in more detail in this MD&A and in our Annual Information Form which has been filed on SEDAR and can be accessed at www.sedar.com. Except as may be required by applicable securities laws, Alvopetro assumes no obligation to publicly update or revise any forward looking statements made herein or otherwise, whether as a result of new information, future events or otherwise.

Test Results. Any references in this MD&A to test results, production from testing and performance rates are useful in confirming the presence of hydrocarbons, however, such rates are not determinative of the rates at which such well will continue production and decline thereafter. Test results are not necessarily indicative of long-term performance of the relevant well or fields or of ultimate recovery of hydrocarbons.

Abbreviations:

m3	=	cubic metre
m3/d	=	cubic metre per day
Mcf	=	thousand cubic feet
Mcfpd	=	thousand cubic feet per day
MMcf	=	million cubic feet
MMcfpd	=	million cubic feet per day
Boepd	=	barrels of oil equivalent per day
Bopd	=	barrels of oil per day

BOE Disclosure. The term barrels of oil equivalent ("boe") may be misleading, particularly if used in isolation. A boe conversion ratio of six thousand cubic feet per barrel (6Mcf/bbl) of natural gas to barrels of oil equivalence is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. All boe conversions in this MD&A are derived from converting gas to oil in the ratio mix of six thousand cubic feet of gas to one barrel of oil.

Non-GAAP Measures. This report contains financial terms that are not considered measures under International Financial Reporting Standards ("IFRS"), such as funds flow from operations, funds flow per share, net working capital surplus and operating netback. These measures are commonly utilized in the oil and gas industry and are considered informative for management and shareholders. Specifically, funds flow from operations and funds flow per share reflect cash generated from operating activities before changes in non-cash working capital. Management considers funds flow from operations and funds flow per share important as they help evaluate performance and demonstrate the Company's ability to generate sufficient cash to fund future growth opportunities. Net working capital surplus includes current assets (including current restricted cash and assets held for sale) less current liabilities (excluding the current portion of decommissioning obligations) and is used to evaluate the Company's financial resources. Operating netback is determined by dividing oil sales less royalties and production taxes, transportation and operating expenses by sales volume of produced oil. Management considers operating netback important as it is a measure of profitability per barrel sold and reflects the economic quality of production. Funds flow from operations, funds flow per share, net working capital surplus and operating netbacks may not be comparable to those reported by other companies nor should they be viewed as an alternative to cash flow from operations, net income or other measures of financial performance calculated in accordance with IFRS.