

BOK FINANCIAL CORP ET AL  
 Form 4/A  
 February 11, 2016

**FORM 4** UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
 Washington, D.C. 20549

OMB APPROVAL

OMB Number: 3235-0287  
 Expires: January 31, 2015  
 Estimated average burden hours per response... 0.5

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
 Grauer Scott

2. Issuer Name and Ticker or Trading Symbol  
 BOK FINANCIAL CORP ET AL  
 [BOKF]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction  
 (Month/Day/Year)  
 06/19/2015

\_\_\_\_ Director \_\_\_\_\_ 10% Owner  
 Officer (give title below) \_\_\_\_\_ Other (specify below)  
 EVP - Wealth Management

C/O FREDERIC DORWART  
 LAWYERS, 124 EAST FOURTH  
 STREET

(Street)

4. If Amendment, Date Original Filed(Month/Day/Year)  
 06/22/2015

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

TULSA, OK 74103

(City) (State) (Zip)

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price
Common Stock	06/19/2015		M		1,093	A	\$ 48.46
					24,591		(1) D
Common Stock	06/19/2015		M		1,660	A	\$ 36.65
					26,251		(1) D
Common Stock	06/19/2015		M		540	A	\$ 48.3
					26,791		(1) D
Common Stock	06/19/2015		M		512	A	\$ 55.94
					27,303		(1) D
	06/19/2015		M		1,555	A	\$ 58.76
					28,858		(1) D

Common  
Stock

Common Stock 06/19/2015 F 4,274 (2) D \$ 68.8992 24,584 (1) D

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

**Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.** SEC 1474 (9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned Following Reported Transaction (Instr. 5)
--	--	--------------------------------------	--	--------------------------------	---	--	---	--	---

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Grauer Scott C/O FREDERIC DORWART LAWYERS 124 EAST FOURTH STREET TULSA, OK 74103			EVP - Wealth Management	

## Signatures

/s/ Frederic Dorwart, Power of Attorney  
Date: 02/11/2016

\*\*Signature of Reporting Person

Date

## Explanation of Responses:

- \* If the form is filed by more than one reporting person, see Instruction 4(b)(v).
  - \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) This Form 4/A is being filed to correct the Amount of Securities Beneficially Owned Following Reported Transactions due to a scrivener's error.

Edgar Filing: BOK FINANCIAL CORP ET AL - Form 4/A

(2) This Form 4/A is being filed to correct the number of shares used to cover the exercise prices and taxes as previously reported.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number. e="vertical-align:bottom;background-color:#cceedd;">

\$  
3.28

\$  
2.67

23

Stock-Based Compensation

0.51

0.80

0.97

(18  
)

0.66

0.78

(15  
)

G&A Expenses, Including Stock-Based Compensation

\$  
3.90

\$  
3.98

\$  
3.91

2

\$  
3.94

\$

Explanation of Responses:

3.45

14

G&A expenses before stock based compensation were consistent with the prior quarter. For the three and six months ended June 30, 2017, G&A expenses increased by 27% and 30%, respectively, from the corresponding periods in 2016. The increase was commensurate with our growth. Since June 30, 2016, we have completed two acquisitions, drilled 15 wells, and grown production 22% from 21,695 BOEPD in the second quarter of 2016 to 26,423 BOEPD in 2017.

30

---

After stock-based compensation and capitalized G&A and overhead recoveries, G&A expenses for the three and six months ended June 30, 2017, increased by 19% to \$9.5 million (\$3.98 per BOE) and by 21% to \$18.2 million (\$3.94 per BOE), respectively, from \$8.0 million (\$3.91 per BOE) and \$15.0 million (\$3.45 per BOE), respectively, in the corresponding periods in 2016. The increase was mainly due to the increased head count.

G&A expenses for the three months ended June 30, 2017, increased by 9% to \$9.5 million (\$3.94 per BOE) compared with \$8.7 million (\$3.90 per BOE) in the prior quarter.

#### Equity Tax Expense

For the six months ended June 30, 2017 and 2016, equity tax expense was \$1.2 million and \$3.1 million, respectively, and is a tax calculated based on our Colombian legal entities' balance sheets equity at January 1. The legal obligation for each year's equity tax liability arises on January 1 of each year, therefore, we recognize the annual amounts of the equity tax expense in our interim unaudited condensed consolidated statement of operations during the first quarter of each year.

#### Foreign Exchange Losses

For the three and six months ended June 30, 2017, we had foreign exchange losses of \$3.9 million and \$2.1 million, respectively, compared with foreign exchange losses of \$0.8 million and \$1.6 million, respectively, in the corresponding period in 2016. Under U.S. GAAP, deferred taxes are considered a monetary liability and require translation from local currency to U.S. dollar functional currency at each balance sheet date. This translation was the main source of the foreign exchange gains and losses. The following table presents the change in the U.S. dollar against the Colombian peso for the three and six months ended June 30, 2017, and 2016:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Change in the U.S. dollar against the Colombian peso	strengthened by 6%	weakened by 4%	strengthened by 1%	weakened by 7%

#### Financial Instrument Gains and Losses

The following table presents the nature of our financial instruments gains for the three and six months ended June 30, 2017, and 2016:

	Three Months Ended June 30,		Six Months Ended June 30,	
(Thousands of U.S. Dollars)	2017	2016	2017	2016
Commodity price derivative gain	\$(1,545)	\$(1,334)	\$(6,247)	\$(1,334)
Foreign currency derivatives loss (gain)	98	(1,118 )	(639 )	(1,118 )
Trading securities loss	—	1,380	—	2,225
	\$(1,447)	\$(1,072)	\$(6,886)	\$(227 )

## Income Tax Expense and Recovery

(Thousands of U.S. Dollars)	Three Months Ended June 30,		Six Months Ended June 30,		
	2017	2016	2017	2016	
Income (loss) before income tax	\$6,490	\$(86,396)	\$38,057	\$(156,541)	
Current income tax expense	\$1,772	\$5,778	\$9,189	\$7,801	
Deferred income tax expense (recovery)	11,525	(28,615 )	22,904	(55,751 )	
Total income tax expense (recovery)	\$13,297	\$(22,837)	\$32,093	\$(47,950 )	
Effective tax rate			84	% 31	%
Deferred income tax recovery related to Colombia ceiling test impairment	\$—	\$31,300	\$—	\$53,100	

Current income tax expense was lower in the three months ended June 30, 2017, compared with the corresponding period in 2016 primarily as a result of increased tax depreciation in Colombia. The deferred income tax expense of \$11.5 million for the three months ended June 30, 2017, was primarily due to excess tax depreciation compared with accounting depreciation in Colombia. The deferred income tax recovery in the corresponding period in 2016 of \$28.6 million included \$31.3 million associated with ceiling test impairment losses in Colombia. In 2016, the income tax recovery associated with impairment losses in Peru and Brazil was offset by a full valuation allowance.

Current income tax expense was higher in the six months ended June 30, 2017, compared with the corresponding period in 2016 as a result of higher taxable income in Colombia. The deferred income tax expense of \$22.9 million for the six months ended June 30, 2017, was primarily due to excess tax depreciation compared with accounting depreciation in Colombia. The deferred income tax recovery in the corresponding period in 2016 of \$55.8 million included \$53.1 million associated with ceiling test impairment losses in Colombia. In 2016, the income tax recovery associated with impairment losses in Peru and Brazil was offset by a full valuation allowance.

The effective tax rate was 84% in the six months ended June 30, 2017, compared with 31% in the corresponding period in 2016. The change in the effective tax rate for the six months ended June 30, 2017, was primarily due to an increase in expected taxes on account of higher taxable income, as well increases in the impact of foreign taxes, other permanent differences, foreign currency translation adjustments and the non-deductible third-party royalty in Colombia, partially offset by a decrease in the valuation allowance, other local taxes, and stock-based compensation.

For the six months ended June 30, 2017, the difference between the effective tax rate of 84% and the 35% U.S. statutory rate was primarily due to an increase in expected taxes on account of higher taxable income, as well increases in the impact of foreign taxes, other permanent differences, valuation allowance largely attributable to losses incurred in the U.S. and Colombia, as well as the non-deductible third-party royalty in Colombia, stock-based compensation and other local taxes. For the six months ended June 30, 2016, the difference between the effective tax rate of 31% and the 35% U.S. statutory rate was primarily due to an increase in the valuation allowance, which was largely attributable to impairment losses in Brazil, as well as non-deductible local taxes, stock based compensation and a third-party royalty in Colombia. These items were partially offset by the impact of foreign taxes, foreign currency translation adjustments and other permanent differences, which mainly relates to non-taxable gain arising on the acquisition of Petroamerica and uncertain tax position adjustments, partially offset by prior periods true-up adjustments and other non-deductible expenses.



## Net Income and Funds Flow from Operations (a Non-GAAP Measure)

(Thousands of U.S. Dollars)	Second		Second		Six Months	
	Quarter 2017	% change	Quarter 2017	% change	Ended, June 30, 2017	% change
	Compared with First Quarter 2017		Compared with Second Quarter 2016		Compared with Six Months Ended June 30, 2016	
Net income (loss) for the comparative period	\$ 12,771		\$(63,559 )		\$(108,591)	
Increase (decrease) due to:						
Prices	(5,278 )		12,049		53,654	
Sales volumes	6,747		12,366		8,017	
Expenses:						
Operating	(3,271 )		(9,460 )		(14,330 )	
Transportation	450		(275 )		5,111	
Cash G&A and RSU settlements, excluding stock-based compensation expense	111		(1,290 )		(2,855 )	
Transaction	—		—		1,237	
Severance	—		281		1,299	
Interest, net of amortization of debt issuance costs	(221 )		(999 )		(3,110 )	
Realized foreign exchange	968		545		542	
Settlement of financial instruments	(320 )		445		1,169	
Current taxes	5,645		4,006		(1,388 )	
Equity tax	1,224		—		1,827	
Other	(161 )		(503 )		(545 )	
Net change in funds flow from comparative period	5,894		17,165		50,628	
Expenses:						
Depletion, depreciation and accretion	(5,051 )		240		10,559	
Asset impairment	114		92,674		149,289	
Deferred tax	(146 )		(40,140 )		(78,655 )	
Amortization of debt issuance costs	(15 )		(131 )		(596 )	
Stock-based compensation, net of RSU settlement	(912 )		(248 )		(346 )	
Financial instruments loss, net of financial instruments settlements	(3,672 )		(70 )		5,490	
Unrealized foreign exchange	(6,714 )		(3,662 )		(1,026 )	
Loss on sale of Brazil business unit	(9,076 )		(9,076 )		(9,076 )	
Gain on acquisition	—		—		(11,712 )	
Net change in net income or loss	(19,578 )		56,752		114,555	
Net income (loss) for the current period	\$(6,807 )	(153)%	\$(6,807 )	89 %	\$5,964	105 %

## 2017 Capital Program

We have narrowed the range of our projected 2017 capital program to \$200 million to \$225 million. We expect to finance our 2017 capital program through cash flows from operations and available capacity under our credit facility, while retaining financial flexibility to undertake further development opportunities and opportunistically pursue acquisitions.

Capital expenditures during the three months ended June 30, 2017, were \$57.9 million:

(Thousands of U.S. Dollars)

Colombia	\$55,436
Brazil	1,062
Peru	1,002
Corporate	365
	\$57,865

The significant elements of our second quarter 2017 capital program were:

## Colombia

On the Chaza Block (100% working interest ("WI"), operated), we completed the Costayaco-28 horizontal development well and successfully drilled and completed the second horizontal well, Costayaco-29. Preparations are underway for production testing at Costayaco-29. We also commenced a workover on the Moqueta-21 well.

On the Putumayo-7 Block (100% WI, operated), we drilled the Confianza-1 exploration well and successfully tested two new zones - U Sand and A Limestone and perforated the N Sand. We are currently executing two seismic programs. The first, the Cumplidor 3-D seismic program completed subsequent to the quarter. The second 3-D seismic survey is underway.

On the Midas Block (100% WI, operated), we completed the Acordionero-8i well as a planned water injector, continued drilling and completed the Acordionero-9 well and tested a new oil zone in the Lisama D, completed the Acordionero-10 well, drilled and completed the Acordionero-11 well, drilled the Acordionero-12 well and commenced drilling the Acordionero-13 well. We also performed a workover on the Acordionero-7 well.

On the Putumayo-1 Block (55% WI, operated), we drilled the Vonu-1 exploration well.

On the Surorientado Block (15.8% WI, non-operated), we drilled the Cohembi-20 development well.

We continued facilities work at the Moqueta and Acordionero Fields.

## Liquidity and Capital Resources

(Thousands of U.S. Dollars)	As at		December 31, 2016
	June 30, 2017	% Change	
Cash and Cash Equivalents	\$53,310	112	\$ 25,175
Current Restricted Cash and Cash Equivalents	\$5,844	(30 )	\$ 8,322

Explanation of Responses:

Revolving Credit Facility	\$155,000 72	\$ 90,000
Convertible Senior Notes	\$115,000 —	\$ 115,000

We believe that our capital resources, including cash on hand, cash generated from operations and available capacity on our credit facility, will provide us with sufficient liquidity to meet our strategic objectives and planned capital program for 2017,

34

---

given current oil price trends and production levels. In accordance with our investment policy, available cash balances are held in our primary cash management banks in interest earning current accounts or may be invested in U.S. or Canadian government-backed federal, provincial or state securities or other money market instruments with high credit ratings and short-term liquidity. We believe that our current financial position provides us the flexibility to respond to both internal growth opportunities and those available through acquisitions.

At June 30, 2017, we had a revolving credit facility with a syndicate of lenders with a borrowing base of \$300 million. Availability under the revolving credit facility is determined by the reserves-based borrowing base determined by the lenders. As a result of the semi-annual redetermination of the committed borrowing base under our revolving credit facility, the committed borrowing base was increased from \$250 million to \$300 million effective June 1, 2017. The next re-determination of the borrowing base is due to occur no later than November 2017. Borrowings under the revolving credit facility will mature on September 18, 2018.

Under the terms of our credit facility, we are required to maintain compliance with certain financial and operating covenants which include: the maintenance of a ratio of debt, including letters of credit, to net income plus interest, taxes, depreciation, depletion, amortization, exploration expenses and all non-cash charges minus all non-cash income ("EBITDAX") not to exceed 4.00 to 1.0; the maintenance of a ratio of senior secured obligations to EBITDAX not to exceed 3.00 to 1.00; and the maintenance of a ratio of EBITDAX to interest expense of at least 2.5 to 1.0. As at June 30, 2017, we were in compliance with all financial and operating covenants in our credit agreement. Under the terms of the credit facility, we are limited in our ability to pay any dividends to our shareholders without bank approval.

The Notes will mature on April 1, 2021, unless earlier redeemed, repurchased or converted.

#### Cash and Cash Equivalents Held Outside of Canada and the United States

At June 30, 2017, 99% of our cash and cash equivalents were held by subsidiaries and partnerships outside of Canada and the United States. This cash was generally not available to fund domestic or head office operations unless funds were repatriated. At this time, we do not intend to repatriate further funds, but if we did, we might have to accrue and pay withholding taxes in certain jurisdictions on the distribution of accumulated earnings. Undistributed earnings of foreign subsidiaries are considered to be permanently reinvested and a determination of the amount of unrecognized deferred tax liability on these undistributed earnings is not practicable.

In Colombia, we participate in a special exchange regime, and we receive revenue in U.S. dollars offshore. We may also pay invoices denominated in U.S. dollars for our Colombian business from these U.S. dollars received offshore. In Peru, expenditures may be paid in local currency or U.S. dollars.

#### Derivative Positions

At June 30, 2017, we had outstanding commodity price derivative positions as follows:

Period and type of instrument	Volume, bopd	Reference	Sold PurchasedSold		
			Put (\$/bbl)	Put (\$/bbl)	Call (\$/bbl)
Collar: October 1, 2016 to December 31, 2017	5,000	ICE Brent	\$ 35	\$ 45	\$ 65
Collar: June 1, 2017 to December 31, 2017	10,000	ICE Brent	\$ 35	\$ 45	\$ 65



At June 30, 2017, we had no outstanding foreign currency derivative positions. Subsequent to the quarter end, we executed the following foreign currency derivative positions:

Period and type of instrument	Amount Hedged (Millions COP)	U.S. Dollar Equivalent of Amount Hedged <sup>(1)</sup> (Thousands of U.S. Dollars)		Reference Call (COP)	Purchased Sold Put (COP, Weighted Average Rate)
Collar: July 1, 2017 to July 31, 2017	5,000	1,646	COP	3,000	3,138
Collar: August 1, 2017 to August 31, 2017	23,000	7,570	COP	3,000	3,116
Collar: September 1, 2017 to September 29, 2017	23,000	7,570	COP	3,000	3,105
Collar: October 1, 2017 to October 31, 2017	23,000	7,570	COP	3,000	3,117
Collar: November 1, 2017 to November 30, 2017	25,000	8,228	COP	3,000	3,139
Collar: December 1, 2017 to December 28, 2017	25,000	8,228	COP	3,000	3,142
	124,000	40,812			

<sup>(1)</sup> At June 30, 2017 foreign exchange rate.

#### Cash Flows

The following table presents our primary sources and uses of cash and cash equivalents for the periods presented:

	Six Months Ended June 30,	
	2017	2016
Sources of cash and cash equivalents:		
Funds flow from operations	\$95,946	\$45,318
Proceeds from bank debt, net of issuance costs	98,304	—
Proceeds from sale of Brazil business unit, net of cash sold	34,481	—
Cash deposit received for letter of credit arrangements upon sale of Brazil business unit	4,700	—
Proceeds from issuance of Notes, net of issuance costs	—	108,900
Foreign exchange gain on cash, cash equivalents and restricted cash and cash equivalents	—	1,946
Proceeds from issuance of shares	—	5,350
	233,431	161,514
Uses of cash and cash equivalents:		
Additions to property, plant and equipment	(104,025)	(44,587 )
Additions to property, plant and equipment - property acquisitions	(30,410 )	(19,388 )
Repayment of debt	(33,000 )	—
Repurchase of shares of Common Stock	(10,000 )	—
Net changes in assets and liabilities from operating activities	(28,112 )	(6,630 )
Changes in non-cash investing working capital	(627 )	(11,059 )
Settlement of asset retirement obligations	(298 )	(464 )
Foreign exchange loss on cash, cash equivalents and restricted cash and cash equivalents	(1,175 )	—
Acquisition of PetroAmerica, net of cash acquired	—	(40,201 )
	(207,647)	(122,329)
Net increase in cash and cash equivalents and restricted cash and cash equivalents	\$25,784	\$39,185

Explanation of Responses:



Cash provided by operating activities in the six months ended June 30, 2017, was primarily affected by higher funds flow from operations (see funds flow from operations reconciliation under the heading 'Consolidated Results of Operations' above) and a \$28.1 million change in assets and liabilities from operating activities.

One of the primary sources of variability in our cash flows from operating activities is the fluctuation in oil prices, the impact of which we partially mitigate by entering into commodity derivatives. Sales volume changes and costs related to operations and debt service also impact cash flow. Our cash flows from operating activities are also impacted by foreign currency exchange rate changes, the impact of which we partially mitigate by entering into foreign currency derivatives.

#### Off-Balance Sheet Arrangements

As at June 30, 2017, we had no off-balance sheet arrangements.

#### Contractual Obligations

During the six months ended June 30, 2017, we borrowed a net amount of \$65.3 million on our revolving credit facility. Additionally, at June 30, 2017, we sold our Brazil business unit and its related obligations. Except as noted above, as at June 30, 2017, there were no other material changes to our contractual obligations outside of the ordinary course of business from those as at December 31, 2016.

#### Critical Accounting Policies and Estimates

Our critical accounting policies and estimates are disclosed in Item 7 of our 2016 Annual Report on Form 10-K, filed with the SEC on March 1, 2017, and have not changed materially since the filing of that document, other than as follows:

#### Full Cost Method of Accounting and Impairments of Oil and Gas Properties

In the six months ended June 30, 2017, we had no ceiling test impairment losses in our Colombia and Brazil cost centers. We used an average Brent price of \$51.35 per bbl for the purposes of the June 30, 2017, ceiling test calculations (March 31, 2017 - \$49.33; December 31, 2016 - \$42.92; June 30, 2016 - \$44.48; March 31, 2016 - \$48.79; December 31, 2015 - \$54.08).

Holding all factors constant other than benchmark oil prices, it is reasonably likely that we will not experience ceiling test impairment losses in our Colombia cost center in the third quarter of 2017. It is difficult to predict with reasonable certainty the amount of expected future impairment losses given the many factors impacting the asset base and the cash flows used in the prescribed U.S. GAAP ceiling test calculation. These factors include, but are not limited to, future commodity pricing, royalty rates in different pricing environments, operating costs and negotiated savings, foreign exchange rates, capital expenditures timing and negotiated savings, production and its impact on depletion and cost base, upward or downward reserve revisions as a result of ongoing exploration and development activity, and tax attributes.

Subject to these factors and inherent limitations, we do not believe that ceiling test impairment losses will be experienced in the third quarter of 2017. The calculation of the impact of higher commodity prices on our estimated ceiling test calculation was prepared based on the presumption that all other inputs and assumptions are held constant with the exception of benchmark oil prices. Therefore, this calculation strictly isolates the impact of commodity prices on the prescribed GAAP ceiling test. This calculation was based on pro forma Brent oil price of \$52.05 per bbl for the

year ended September 30, 2017. These pro forma oil prices were calculated using a 12-month unweighted arithmetic average of oil prices, and included the oil prices on the first day of the month for the ten months ended July 31, 2017, and, for the two months ended September 30, 2017, estimated oil prices for the third quarter of 2017 using the forward price curve forecast from Bloomberg dated June 30, 2017.

As noted above, actual cash flows may be materially affected by other factors. For example, in Colombia, cash royalties are levied at lower rates in low oil price environments and foreign exchange rates can materially impact the deferred tax component of the asset base, operating costs, and the income tax calculation.

### Item 3. Quantitative and Qualitative Disclosures About Market Risk

#### Commodity price risk

Our principal market risk relates to oil prices. Oil prices are volatile and unpredictable and influenced by concerns over world supply and demand imbalance and many other market factors outside of our control. Most of our revenues are from oil sales at

37

---

prices which reflect the blended prices received upon shipment by the purchaser at defined sales points or are defined by contract relative to West Texas Intermediate ("WTI") or Brent and adjusted for quality each month.

We have entered into commodity price derivative contracts to manage the variability in cash flows associated with the forecasted sale of our oil production, reduce commodity price risk and provide a base level of cash flow in order to assure we can execute at least a portion of our capital spending.

#### Foreign currency risk

Foreign currency risk is a factor for our company but is ameliorated to a certain degree by the nature of expenditures and revenues in the countries where we operate. Our reporting currency is U.S. dollars and 100% of our revenues are related to the U.S. dollar price of Brent or WTI oil. In Colombia, we receive 100% of our revenues in U.S. dollars and the majority of our capital expenditures are in U.S. dollars or are based on U.S. dollar prices. In Peru, capital expenditures are based on U.S. dollar prices and may be paid in local currency or U.S. dollars. The majority of income and value added taxes and G&A expenses in Colombia and Peru are in local currency. Certain G&A expenses incurred at our head office in Canada are denominated in Canadian dollars. While we operate in South America exclusively, the majority of our acquisition expenditures have been valued and paid in U.S. dollars.

Additionally, foreign exchange gains and losses result primarily from the fluctuation of the U.S. dollar to the Colombian peso due to our current and deferred tax liabilities, which are monetary liabilities, denominated in the local currency of the Colombian foreign operations. As a result, a foreign exchange gain or loss must be calculated on conversion to the U.S. dollar functional currency.

We have entered into foreign currency derivative contracts to manage the variability in cash flows associated with our forecasted Colombian peso denominated costs.

#### Interest Rate Risk

Interest rate risk is the risk that future cash flows will fluctuate as a result of changes in market interest rates. We are exposed to interest rate fluctuations on our revolving credit facility, which bears floating rates of interest. At June 30, 2017, our outstanding revolving credit facility was \$155.0 million (December 31, 2016 - \$90.0 million), which had a weighted-average interest rate of approximately 3.7%. A 10% change in LIBOR would not materially impact our interest expense on debt outstanding at June 30, 2017.

#### Further information

See Note 10 in the Notes to the Condensed Consolidated Financial Statements (Unaudited) in Part I, Item 1 of this Quarterly Report on Form 10-Q, which is incorporated herein by reference, for further information regarding our derivative contracts, including the notional amounts and call and put prices by expected (contractual) maturity dates. Expected cash flows from the derivatives equaled the fair value of the contract. The information is presented in U.S. dollars because that is our reporting currency. We do not hold any of these derivative contracts for trading purposes.

#### Item 4. Controls and Procedures

##### Disclosure Controls and Procedures

We have established disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, or Exchange Act). Our disclosure controls and procedures are designed to provide reasonable assurance that the information required to be disclosed by Gran Tierra in the reports that it files or submits

#### Explanation of Responses:

under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms and that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. Our management, including our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report, as required by Rule 13a-15(e) of the Exchange Act. Based on their evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that Gran Tierra's disclosure controls and procedures were effective as of June 30, 2017.

## Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended June 30, 2017, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II - Other Information

## Item 1. Legal Proceedings

See Note 9 in the Notes to the Condensed Consolidated Financial Statements (Unaudited) in Part I, Item 1 of this Quarterly Report on Form 10-Q, which is incorporated herein by reference, for material developments with respect to matters previously reported in our Annual Report on Form 10-K for the year ended December 31, 2016, and material matters that have arisen since the filing of such report.

## Item 1A. Risk Factors

See Part I, Item 1A Risk Factors of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016. The risks facing our company have not changed materially from those set forth in Part I, Item 1A Risk Factors of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016.

## Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

## Issuer Purchases of Equity Securities

	(a) Total Number of Shares Purchased <sup>(1)</sup>	(b) Average Price Paid per Share <sup>(2)</sup>	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number of Shares that May Yet be Purchased Under the Plans or Programs <sup>(3)</sup>
Month #1 (April 1, 2017 - April 30, 2017)	—	—	—	19,540,359
Month #2 (May 1, 2017 - May 31, 2017)	1,138,246	2.44	1,138,246	18,402,113
Month #3 (June 1, 2017 - June 30, 2017)	3,097,644	2.33	3,097,644	15,304,469
Total	4,235,890	2.36	4,235,890	15,304,469

<sup>(1)</sup> Based on settlement date.

<sup>(2)</sup> Exclusive of commissions paid to the broker to repurchase the common shares.

<sup>(3)</sup> On February 6, 2017, the Company announced that it intended to implement a new share repurchase program (the "2017 Program") through the facilities of the Toronto Stock Exchange ("TSX"), the NYSE American and eligible alternative trading platforms in Canada and the United States. The Company received regulatory approval from the TSX to commence the 2017 Program on February 6, 2017. Under the 2017 Program, the Company is able to purchase at prevailing market prices up to 19,540,359 shares of Common Stock, representing 5.0% of the issued and outstanding shares of Common Stock as of January 27, 2017.

Shares purchased pursuant to the 2017 Program will be canceled. The 2017 Program will expire on February 7, 2018, or earlier if the 5.0% share maximum is reached. The 2017 Program may be terminated by the Company at any time, subject to compliance with regulatory requirements. As such, there can be no assurance regarding the total number of shares that may be repurchased under the 2017 Program.

Item 6. Exhibits

The exhibits required to be filed by Item 6 are set forth in the Exhibit Index accompanying this Quarterly Report.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

GRAN TIERRA ENERGY INC.

Date: August 3, 2017 /s/ Gary S. Guidry  
By: Gary S. Guidry  
President and Chief Executive Officer  
(Principal Executive Officer)

Date: August 3, 2017 /s/ Ryan Ellson  
By: Ryan Ellson  
Chief Financial Officer  
(Principal Financial and Accounting Officer)

EXHIBIT INDEX

Exhibit No.	Description	Reference
2.1+	Arrangement Agreement, dated November 12, 2015, between Gran Tierra Energy Inc. and Petroamerica Oil Corp.	Incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K, filed with the SEC on November 18, 2015 (SEC File No. 001-34018).
2.2	Plan of Conversion, dated October 31, 2016.	Incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K, filed with the SEC on November 4, 2016 (SEC File No. 001-34018).
3.1	Certificate of Incorporation.	Incorporated by reference to Exhibit 3.3 to the Current Report on Form 8-K, filed with the SEC on November 4, 2016 (SEC File No. 001-34018).
3.2	Bylaws of Gran Tierra Energy Inc.	Incorporated by reference to Exhibit 3.4 to the Current Report on Form 8-K, filed with the SEC on November 4, 2016 (SEC File No. 001-34018).
4.1	Reference is made to Exhibits 3.1 to 3.2.	
4.2	Details of the Goldstrike Special Voting Share.	Incorporated by reference to Exhibit 10.14 to the Annual Report on Form 10-KSB/A for the period ended December 31, 2005, and filed with the SEC on April 21, 2006 (SEC File No. 333-111656).
4.3	Goldstrike Exchangeable Share Provisions.	Incorporated by reference to Exhibit 10.15 to the Annual Report on Form 10-KSB/A for the period ended December 31, 2005 and filed with the SEC on April 21, 2006 (SEC File No. 333-111656).
4.4	Provisions Attaching to the GTE-Solana Exchangeable Shares.	Incorporated by reference to Annex E to the Proxy Statement on Schedule 14A filed with the SEC on October 14, 2008 (SEC File No. 001-34018).
4.5	Indenture related to the 5.00% Convertible Senior Notes due 2021, dated as of April 6, 2016, between Gran Tierra Energy Inc. and U.S. Bank National Association	Incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K, filed with the SEC on April 6, 2016 (SEC File No. 001-34018).
4.6	Form of 5.00% Convertible Senior Notes due 2021	Incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K, filed with the SEC on April 6, 2016 (SEC File No. 001-34018).
4.7	Subscription Receipt Agreement, dated July 8, 2016, by and between Gran Tierra Energy Inc. and Computershare Trust Company of Canada.	Incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K, filed with the SEC on July 14, 2016 (SEC File No. 001-34018).
4.8	Form of Registration Rights Agreement.	Incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K, filed with the SEC on

July 14, 2016 (SEC File No. 001-34018).

- 10.1 Sixth Amendment to Credit Agreement, dated as of June 1, 2017, by and among Gran Tierra Energy International Holdings Ltd., Gran Tierra Energy Inc., the Bank of Nova Scotia and the lenders party thereto. Incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K, filed with the SEC on May 18, 2017 (SEC File No. 001-34018).
- 10.2 Seventh Amendment to Credit Agreement, dated as of June 30, 2017, by and among Gran Tierra Energy International Holdings Ltd., Gran Tierra Energy Inc., the Bank of Nova Scotia and the lenders party thereto. Filed herewith.
- 10.3 Share and Loan Purchase Agreement, dated February 5, 2017, by Gran Tierra Energy International Holdings Ltd., Gran Tierra Luxembourg Holdings S. Á. R.L. and Maha Energy AB Incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K, filed with the SEC on July 6, 2017 (SEC File No. 001-34018).

10.4 Amendment #1, dated May 30, 2017, to the Share and Loan Purchase Agreement dated February 5, 2017 between Gran Tierra Energy International Holdings Ltd., Gran Tierra Luxembourg Holdings S.Á.R.L. and Maha Energy AB. Incorporated by reference to Exhibit 2.2 to the Current Report on Form 8-K, filed with the SEC on July 6, 2017 (SEC File No. 001-34018).

10.5 Amendment #2, dated June 22, 2017, to the Share and Loan Purchase Agreement dated February 5, 2017 between Gran Tierra Energy International Holdings Ltd., Gran Tierra Luxembourg Holdings S.Á.R.L. and Maha Energy AB. Incorporated by reference to Exhibit 2.3 to the Current Report on Form 8-K, filed with the SEC on July 6, 2017 (SEC File No. 001-34018).

10.6 Amendment #3, dated June 26, 2017, to the Share and Loan Purchase Agreement dated February 5, 2017 between Gran Tierra Energy International Holdings Ltd., Gran Tierra Luxembourg Holdings S.Á.R.L. and Maha Energy AB. Incorporated by reference to Exhibit 2.4 to the Current Report on Form 8-K, filed with the SEC on July 6, 2017 (SEC File No. 001-34018).

12.1 Statement re: Computation of Ratio of Earnings to Fixed Charges Filed herewith.

31.1 Certification of Principal Executive Officer Pursuant to Rule 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 Filed herewith.

31.2 Certification of Principal Financial Officer Pursuant to Rule 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 Filed herewith.

32.1 Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 Furnished herewith.

101.INS XBRL Instance Document

101.SCH XBRL Taxonomy Extension Schema Document

101.CAL XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF XBRL Taxonomy Extension Definition Linkbase Document

101.LAB XBRL Taxonomy Extension Label Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

+ Schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. Gran Tierra undertakes to furnish supplemental copies of any of the omitted schedules upon request by the SEC.