
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number: 1-36132

PLAINS GP HOLDINGS, L.P.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

90-1005472

(I.R.S. Employer
Identification No.)

333 Clay Street, Suite 1600, Houston, Texas

(Address of principal executive offices)

77002

(Zip Code)

(713) 646-4100

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of October 31, 2018, there were 159,160,785 Class A Shares outstanding.

PLAINS GP HOLDINGS, L.P. AND SUBSIDIARIES
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PART I. FINANCIAL INFORMATION

Item 1. UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

PLAINS GP HOLDINGS, L.P. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(in millions, except share data)

	September 30, 2018	December 31, 2017
	(unaudited)	
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 33	\$ 40
Trade accounts receivable and other receivables, net	2,954	3,029
Inventory	824	713
Other current assets	320	221
Total current assets	4,131	4,003
PROPERTY AND EQUIPMENT		
Accumulated depreciation	17,751	16,901
Property and equipment, net	(3,059)	(2,796)
	14,692	14,105
OTHER ASSETS		
Goodwill	2,540	2,566
Investments in unconsolidated entities	2,539	2,756
Deferred tax asset	1,347	1,386
Linefill and base gas	914	872
Long-term inventory	179	164
Other long-term assets, net	948	901
Total assets	\$ 27,290	\$ 26,753
LIABILITIES AND PARTNERS' CAPITAL		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	\$ 3,614	\$ 3,459
Short-term debt	429	737
Other current liabilities	615	337
Total current liabilities	4,658	4,533
LONG-TERM LIABILITIES		
Senior notes, net	8,939	8,933
Other long-term debt, net	201	250
Other long-term liabilities and deferred credits	781	679
Total long-term liabilities	9,921	9,862
COMMITMENTS AND CONTINGENCIES (NOTE 13)		
PARTNERS' CAPITAL		
Class A Shareholders (159,160,785 and 156,111,139 shares outstanding, respectively)	1,747	1,695
Noncontrolling interests	10,964	10,663
Total partners' capital	12,711	12,358
Total liabilities and partners' capital	\$ 27,290	\$ 26,753

The accompanying notes are an integral part of these condensed consolidated financial statements.

PLAINS GP HOLDINGS, L.P. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(in millions, except per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
	(unaudited)		(unaudited)	
REVENUES				
Supply and Logistics segment revenues	\$ 8,482	\$ 5,573	\$ 24,374	\$ 17,749
Transportation segment revenues	161	160	458	459
Facilities segment revenues	149	140	437	410
Total revenues	<u>8,792</u>	<u>5,873</u>	<u>25,269</u>	<u>18,618</u>
COSTS AND EXPENSES				
Purchases and related costs	7,768	5,327	22,838	16,239
Field operating costs	326	283	931	876
General and administrative expenses	75	68	235	213
Depreciation and amortization	131	152	307	403
Total costs and expenses	<u>8,300</u>	<u>5,830</u>	<u>24,311</u>	<u>17,731</u>
OPERATING INCOME	492	43	958	887
OTHER INCOME/(EXPENSE)				
Equity earnings in unconsolidated entities	110	80	281	201
Gain on sale of investment in unconsolidated entities	210	—	210	—
Interest expense (net of capitalized interest of \$8, \$11, \$21 and \$26, respectively)	(110)	(134)	(327)	(390)
Other income/(expense), net	<u>(3)</u>	<u>(1)</u>	<u>8</u>	<u>(6)</u>
INCOME/(LOSS) BEFORE TAX	699	(12)	1,130	692
Current income tax (expense)/benefit	(14)	1	(34)	(9)
Deferred income tax (expense)/benefit	<u>(9)</u>	<u>42</u>	<u>(50)</u>	<u>(76)</u>
NET INCOME	676	31	1,046	607
Net income attributable to noncontrolling interests	<u>(565)</u>	<u>(27)</u>	<u>(892)</u>	<u>(538)</u>
NET INCOME ATTRIBUTABLE TO PAGP	<u>\$ 111</u>	<u>\$ 4</u>	<u>\$ 154</u>	<u>\$ 69</u>
BASIC AND DILUTED NET INCOME PER CLASS A SHARE	<u>\$ 0.70</u>	<u>\$ 0.03</u>	<u>\$ 0.98</u>	<u>\$ 0.49</u>
BASIC AND DILUTED WEIGHTED AVERAGE CLASS A SHARES OUTSTANDING	<u>158</u>	<u>154</u>	<u>157</u>	<u>142</u>

The accompanying notes are an integral part of these condensed consolidated financial statements.

PLAINS GP HOLDINGS, L.P. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in millions)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
	(unaudited)		(unaudited)	
Net income	\$ 676	\$ 31	\$ 1,046	\$ 607
Other comprehensive income/(loss)	76	145	(46)	256
Comprehensive income	752	176	1,000	863
Comprehensive income attributable to noncontrolling interests	(624)	(141)	(856)	(742)
Comprehensive income attributable to PAGP	\$ 128	\$ 35	\$ 144	\$ 121

The accompanying notes are an integral part of these condensed consolidated financial statements.

PLAINS GP HOLDINGS, L.P. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN
ACCUMULATED OTHER COMPREHENSIVE INCOME/(LOSS)
(in millions)

	Derivative Instruments	Translation Adjustments	Other	Total
	(unaudited)			
Balance at December 31, 2017	\$ (223)	\$ (548)	\$ 1	\$ (770)
Reclassification adjustments	6	—	—	6
Unrealized gain on hedges	60	—	—	60
Currency translation adjustments	—	(112)	—	(112)
Total period activity	66	(112)	—	(46)
Balance at September 30, 2018	\$ (157)	\$ (660)	\$ 1	\$ (816)

	Derivative Instruments	Translation Adjustments	Other	Total
	(unaudited)			
Balance at December 31, 2016	\$ (228)	\$ (782)	\$ 1	\$ (1,009)
Reclassification adjustments	19	—	—	19
Unrealized loss on hedges	(15)	—	—	(15)
Currency translation adjustments	—	252	—	252
Total period activity	4	252	—	256
Balance at September 30, 2017	\$ (224)	\$ (530)	\$ 1	\$ (753)

The accompanying notes are an integral part of these condensed consolidated financial statements.

PLAINS GP HOLDINGS, L.P. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)

	Nine Months Ended September 30,	
	2018	2017
	(unaudited)	
CASH FLOWS FROM OPERATING ACTIVITIES		
Net income	\$ 1,046	\$ 607
Reconciliation of net income to net cash provided by operating activities:		
Depreciation and amortization	307	403
Equity-indexed compensation expense	59	33
Inventory valuation adjustments	—	35
Deferred income tax expense	50	76
(Gain)/loss on foreign currency revaluation	2	(20)
Settlement of terminated interest rate hedging instruments	14	(29)
Equity earnings in unconsolidated entities	(281)	(201)
Distributions on earnings from unconsolidated entities	324	222
Gain on sale of investment in unconsolidated entities	(210)	—
Other	17	19
Changes in assets and liabilities, net of acquisitions	(36)	770
Net cash provided by operating activities	<u>1,292</u>	<u>1,915</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Cash paid in connection with acquisitions, net of cash acquired	—	(1,282)
Investments in unconsolidated entities	(300)	(356)
Additions to property, equipment and other	(1,184)	(778)
Proceeds from sales of assets	1,298	407
Return of investment from unconsolidated entities	10	21
Other investing activities	(8)	25
Net cash used in investing activities	<u>(184)</u>	<u>(1,963)</u>
CASH FLOWS FROM FINANCING ACTIVITIES		
Net repayments under PAA commercial paper program (Note 9)	(63)	(115)
Net borrowings/(repayments) under PAA senior secured hedged inventory facility (Note 9)	(479)	7
Proceeds from PAA GO Zone term loans (Note 9)	200	—
Repayments of PAA senior notes	—	(400)
Net proceeds from sales of Class A shares	—	1,535
Net proceeds from sales of common units by a subsidiary	—	129
Distributions paid to Class A shareholders (Note 10)	(142)	(225)
Distributions paid to noncontrolling interests (Note 10)	(611)	(945)
Other financing activities	(17)	46
Net cash provided by/(used in) financing activities	<u>(1,112)</u>	<u>32</u>
Effect of translation adjustment on cash	(3)	2
Net decrease in cash and cash equivalents	(7)	(14)
Cash and cash equivalents, beginning of period	40	50
Cash and cash equivalents, end of period	<u>\$ 33</u>	<u>\$ 36</u>
Cash paid for:		
Interest, net of amounts capitalized	\$ 281	\$ 325
Income taxes, net of amounts refunded	\$ 20	\$ 47

The accompanying notes are an integral part of these condensed consolidated financial statements.

PLAINS GP HOLDINGS, L.P. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN PARTNERS' CAPITAL
(in millions)

	Class A Shareholders	Noncontrolling Interests	Total Partners' Capital
	(unaudited)		
Balance at December 31, 2017	\$ 1,695	\$ 10,663	\$ 12,358
Impact of adoption of ASU 2017-05 (Note 2)	24	89	113
Balance at January 1, 2018	1,719	10,752	12,471
Net income	154	892	1,046
Distributions (Note 10)	(142)	(660)	(802)
Deferred tax asset	11	—	11
Other comprehensive loss	(10)	(36)	(46)
Equity-indexed compensation expense	6	31	37
Other	9	(15)	(6)
Balance at September 30, 2018	\$ 1,747	\$ 10,964	\$ 12,711

	Class A Shareholders	Noncontrolling Interests	Total Partners' Capital
	(unaudited)		
Balance at December 31, 2016	\$ 1,737	\$ 8,970	\$ 10,707
Net income	69	538	607
Distributions	(225)	(945)	(1,170)
Deferred tax asset	390	—	390
Sales of Class A shares	462	1,073	1,535
Sales of common units by a subsidiary	13	116	129
Issuance of common units by a subsidiary for acquisition of interest in Advantage Joint Venture	5	35	40
Other comprehensive income	52	204	256
Equity-indexed compensation expense	4	14	18
Other	21	(28)	(7)
Balance at September 30, 2017	\$ 2,528	\$ 9,977	\$ 12,505

The accompanying notes are an integral part of these condensed consolidated financial statements.

PLAINS GP HOLDINGS, L.P. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

Note 1—Organization and Basis of Consolidation and Presentation

Organization

Plains GP Holdings, L.P. (“PAGP”) is a Delaware limited partnership formed in July 2013 that has elected to be taxed as a corporation for United States federal income tax purposes. PAGP does not directly own any operating assets; as of September 30, 2018, its principal sources of cash flow are derived from an indirect investment in Plains All American Pipeline, L.P. (“PAA”), a publicly traded Delaware limited partnership. As used in this Form 10-Q and unless the context indicates otherwise (taking into account the fact that PAGP has no operating activities apart from those conducted by PAA and its subsidiaries), the terms “Partnership,” “we,” “us,” “our,” “ours” and similar terms refer to PAGP and its subsidiaries.

As of September 30, 2018, PAGP owned (i) a 100% managing member interest in Plains All American GP LLC (“GP LLC”), an entity that has also elected to be taxed as a corporation for United States federal income tax purposes and (ii) an approximate 57% limited partner interest in Plains AAP, L.P. (“AAP”) through our direct ownership of approximately 158.2 million Class A units of AAP (“AAP units”) and indirect ownership of approximately 1.0 million AAP units through GP LLC. GP LLC is a Delaware limited liability company that also holds the non-economic general partner interest in AAP. AAP is a Delaware limited partnership that, as of September 30, 2018, directly owned a limited partner interest in PAA through its ownership of approximately 281.0 million PAA common units (approximately 35% of PAA’s total outstanding common units and Series A preferred units combined). AAP is the sole member of PAA GP LLC (“PAA GP”), a Delaware limited liability company that directly holds the non-economic general partner interest in PAA.

PAA is a publicly traded master limited partnership that owns and operates midstream energy infrastructure and provides logistics services primarily for crude oil, natural gas liquids (“NGL”) and natural gas. PAA owns an extensive network of pipeline transportation, terminalling, storage and gathering assets in key crude oil and NGL producing basins and transportation corridors and at major market hubs in the United States and Canada. Our business activities are conducted through three operating segments: Transportation, Facilities and Supply and Logistics. See Note 14 for further discussion of our operating segments.

PAA GP Holdings LLC, a Delaware limited liability company, is our general partner. Our general partner manages our operations and activities and is responsible for exercising on our behalf any rights we have as the sole and managing member of GP LLC, including responsibility for conducting the business and managing the operations of AAP and PAA. GP LLC employs our domestic officers and personnel involved in the operation and management of AAP and PAA. PAA’s Canadian officers and personnel are employed by our subsidiary, Plains Midstream Canada ULC (“PMC”).

Definitions

Additional defined terms are used in this Form 10-Q and shall have the meanings indicated below:

AOCI	=	Accumulated other comprehensive income/(loss)
ASC	=	Accounting Standards Codification
ASU	=	Accounting Standards Update
Bcf	=	Billion cubic feet
Btu	=	British thermal unit
CAD	=	Canadian dollar
CODM	=	Chief Operating Decision Maker
EBITDA	=	Earnings before interest, taxes, depreciation and amortization
EPA	=	United States Environmental Protection Agency
FASB	=	Financial Accounting Standards Board
GAAP	=	Generally accepted accounting principles in the United States
ICE	=	Intercontinental Exchange
ISDA	=	International Swaps and Derivatives Association
LIBOR	=	London Interbank Offered Rate
LTIP	=	Long-term incentive plan
Mcf	=	Thousand cubic feet
NGL	=	Natural gas liquids, including ethane, propane and butane
NYMEX	=	New York Mercantile Exchange
Oxy	=	Occidental Petroleum Corporation or its subsidiaries
PLA	=	Pipeline loss allowance
SEC	=	United States Securities and Exchange Commission
USD	=	United States dollar
WTI	=	West Texas Intermediate

Basis of Consolidation and Presentation

The accompanying unaudited condensed consolidated interim financial statements and related notes thereto should be read in conjunction with our 2017 Annual Report on Form 10-K. The accompanying condensed consolidated financial statements include the accounts of PAGP and all of its wholly owned subsidiaries and those entities that it controls. Investments in entities over which we have significant influence but not control are accounted for by the equity method. We apply proportionate consolidation for pipelines and other assets in which we own undivided joint interests. The financial statements have been prepared in accordance with the instructions for interim reporting as set forth by the SEC. All adjustments (consisting only of normal recurring adjustments) that in the opinion of management were necessary for a fair statement of the results for the interim periods have been reflected. All significant intercompany transactions have been eliminated in consolidation, and certain reclassifications have been made to information from previous years to conform to the current presentation. The condensed consolidated balance sheet data as of December 31, 2017 was derived from audited financial statements, but does not include all disclosures required by GAAP. The results of operations for the three and nine months ended September 30, 2018 should not be taken as indicative of results to be expected for the entire year.

Management judgment is required to evaluate whether PAGP controls an entity. Key areas of that evaluation include (i) determining whether an entity is a variable interest entity (“VIE”); (ii) determining whether PAGP is the primary beneficiary of a VIE, including evaluating which activities of the VIE most significantly impact its economic performance and the degree of power that PAGP and its related parties have over those activities through variable interests; and (iii) identifying events that require reconsideration of whether an entity is a VIE and continuously evaluating whether PAGP is a VIE’s primary beneficiary.

We have determined that our subsidiaries, PAA and AAP, are VIEs and should be consolidated by PAGP because:

- The limited partners of PAA and AAP lack (i) substantive “kick-out rights” (i.e., the right to remove the general partner) based on a simple majority or lower vote and (ii) substantive participation rights and thus lack the ability to block actions of the general partner that most significantly impact the economic performance of PAA and AAP, respectively.
- AAP is the primary beneficiary of PAA because it has the power to direct the activities that most significantly impact PAA’s performance and the right to receive benefits, and obligation to absorb losses, that could be significant to PAA.
- PAGP is the primary beneficiary of AAP because it has the power to direct the activities that most significantly impact AAP’s performance and the right to receive benefits, and obligation to absorb losses, that could be significant to AAP.

With the exception of a deferred tax asset of \$1.347 billion and \$1.386 billion as of September 30, 2018 and December 31, 2017, respectively, substantially all assets and liabilities presented on PAGP’s consolidated balance sheet are those of PAA. Only the assets of each respective VIE can be used to settle the obligations of that individual VIE, and the creditors of each/either of those VIEs do not have recourse against the general credit of PAGP. PAGP did not provide any financial support to PAA or AAP during the nine months ended September 30, 2018 or the year ended December 31, 2017. See Note 15 to our Consolidated Financial Statements included in Part IV of our 2017 Annual Report on Form 10-K for information regarding the Omnibus Agreement entered into in connection with the Simplification Transactions.

Subsequent events have been evaluated through the financial statements issuance date and have been included in the following footnotes where applicable.

Note 2—Recent Accounting Pronouncements

Except as discussed below and in our 2017 Annual Report on Form 10-K, there have been no new accounting pronouncements that have become effective or have been issued during the nine months ended September 30, 2018 that are of significance or potential significance to us.

Accounting Standards Updates Adopted During the Period

In February 2017, the FASB issued ASU 2017-05, *Other Income—Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets*. The ASU clarifies what type of transactions involving nonfinancial assets are covered by the scope of the standard and provides guidance on how to account for those transactions, including partial sales of real estate. Within this guidance, all sales and partial sales of businesses, which may have previously been accounted for using the in-substance real estate guidance, should follow the consolidation guidance. This guidance is effective for interim and annual periods beginning after December 15, 2017, and must be adopted at the same time as Topic 606 (defined below). We adopted this ASU on January 1, 2018, using the modified retrospective approach. The cumulative effect of our adoption resulted in increases in both the carrying value of investments in unconsolidated entities and retained earnings of \$113 million related to the retained noncontrolling interest in those entities from partial sales of businesses accounted for under in-substance real estate guidance during 2016 and 2017.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force)*, requiring that a statement of cash flows explain the change in total cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents during the period. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period total amounts shown on the statement of cash flows. This guidance is effective for interim and annual periods beginning after December 15, 2017. We adopted this ASU on January 1, 2018. Our adoption did not have an impact on our statement of cash flows.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers*, followed by a series of related accounting standard updates (collectively referred to as “Topic 606”) with the underlying principle that an entity will recognize revenue to reflect amounts expected to be received in exchange for the provision of goods and services to customers upon the transfer of control of those goods or services. We adopted Topic 606 on January 1, 2018, and applied the modified retrospective approach. See Note 3 for additional information.

Accounting Standards Updates Issued During the Period

In August 2018, the FASB issued ASU 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (a consensus of the FASB Emerging Issues Task Force)*, to address the accounting for implementation costs of a hosting arrangement that is a service contract and to align the accounting for implementation costs for hosting arrangements, regardless of whether they convey a license to the hosted software. This guidance is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. We expect to adopt this guidance on January 1, 2020, and we are currently evaluating the effect that our adoption of this guidance will have on our financial position, results of operations and cash flows.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*, modifying the disclosure requirements on fair value measurements in Topic 820. This guidance is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. We expect to adopt this guidance on January 1, 2020, and we are currently evaluating the effect that our adoption of this guidance will have on our financial position, results of operations and cash flows.

In July 2018, the FASB issued ASU 2018-09, *Codification Improvements*, which makes updates for clarifications, technical corrections and other minor improvements to a wide variety of Topics to make the ASC easier to understand and to apply. The transition and effective date is based on the facts and circumstances of each amendment with some amendments effective upon issuance. The remaining amendments are effective for annual periods beginning after December 15, 2018. We expect to adopt the remaining applicable amendments within this guidance on January 1, 2019, and we are currently evaluating the effect that our adoption of this guidance will have on our financial position, results of operations and cash flows.

In June 2018, the FASB issued ASU 2018-07, *Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*, which expands the scope of Topic 718 to include share-based payment awards to nonemployees and eliminates the classification differences for employee and nonemployee share-based payment awards. This guidance is effective for interim and annual periods beginning after December 15, 2018, with early adoption permitted. We expect to adopt this guidance on January 1, 2019, and we do not currently anticipate that our adoption will have a material impact on our financial position, results of operations or cash flows.

Other Accounting Standards Updates

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, that revises the current accounting model for leases. The most significant changes are the clarification of the definition of a lease and required lessee recognition on the balance sheet of lease assets and liabilities with lease terms of more than 12 months (with the election of the practical expedient to exclude short-term leases on the balance sheet), including extensive quantitative and qualitative disclosures. This guidance will become effective for interim and annual periods beginning after December 15, 2018, with a modified retrospective application required. Early adoption is permitted, including adoption in an interim period. We expect to adopt this guidance on January 1, 2019. We have implemented a process to evaluate the impact of adopting this guidance on each type of lease contract we have entered into with counterparties. Our implementation team is in the process of determining appropriate changes to our business processes, systems and controls to support recognition and disclosure under the new standard. Although our evaluation and implementation procedures are ongoing, we currently estimate that there will be a material impact on our financial position (both lease assets and lease liabilities), as well as an increase in disclosures related to leases. However, the determination of the ultimate impact of adopting this guidance will not be known until our implementation procedures are complete and will depend on our lease portfolio as of the adoption date.

Note 3—Revenues

Revenue Recognition

On January 1, 2018, we adopted Topic 606 using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under ASC Topic 605, *Revenue Recognition*.

There was no material impact to opening retained earnings as of January 1, 2018 due to the adoption of Topic 606. There also was no material impact to revenues, or any other financial statement line items, for the three and nine months ended September 30, 2018 as a result of applying Topic 606.

Under Topic 606, we disaggregate our revenues by segment and type of activity. These categories depict how the nature, amount, timing and uncertainty of revenues and cash flows are affected by economic factors.

Supply and Logistics Segment Revenues from Contracts with Customers. The following table presents our Supply and Logistics segment revenues from contracts with customers disaggregated by type of activity (in millions):

	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2018
Supply and Logistics segment revenues from contracts with customers		
Crude oil transactions	\$ 7,978	\$ 22,651
NGL and other transactions	556	2,181
Total Supply and Logistics segment revenues from contracts with customers	<u>\$ 8,534</u>	<u>\$ 24,832</u>

Revenues from sales of crude oil, NGL and natural gas are recognized at the time title to the product sold transfers to the purchaser, which occurs upon delivery of the product to the purchaser or its designee. Sales of crude oil and NGL consist of outright sales contracts. The consideration received under these contracts is variable based on commodity prices. Inventory purchases and sales under buy/sell transactions are treated as inventory exchanges which are excluded from Supply and Logistics segment revenues in our Condensed Consolidated Statements of Operations. Revenues recognized by our Supply and Logistics segment primarily represent margin based activities.

In addition, we have certain crude oil sales agreements that are entered into in conjunction with storage arrangements and future inventory exchanges. The revenues under these agreements are deferred until all performance obligations associated with the related agreements are completed. The inventory that has been sold under these crude oil sales agreements is reflected in "Other Current Assets" on our Condensed Consolidated Balance Sheet until all of our performance obligations are complete. At that time, the inventory that has been sold is removed from our Condensed Consolidated Balance Sheet and recorded as "Purchases and Related Costs" in our Condensed Consolidated Statement of Operations. At September 30, 2018, other current assets and deferred revenue associated with these agreements was approximately \$157 million and \$159 million, respectively. See Contract Balances below for further discussion of contract liabilities associated with these agreements.

We may also utilize derivatives in connection with the transactions described above. Derivative revenue is not included as a component of revenue from contracts with customers, but is included in other items in revenue. The change in the fair value of derivatives that are not designated or do not qualify for hedge accounting is recognized in revenues each period.

Transportation Segment Revenues from Contracts with Customers. The following table presents our Transportation segment revenues from contracts with customers disaggregated by type of activity (in millions):

	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2018
Transportation segment revenues from contracts with customers		
Tariff activities:		
Crude oil pipelines	\$ 435	\$ 1,237
NGL pipelines	25	76
Total tariff activities	460	1,313
Trucking	36	103
Total Transportation segment revenues from contracts with customers	<u>\$ 496</u>	<u>\$ 1,416</u>

Our Transportation segment operations generally consist of fee-based activities associated with transporting crude oil and NGL on pipelines, gathering systems and trucks. Revenues from pipeline tariffs and fees are associated with the transportation of crude oil and NGL at a published tariff. We primarily recognize pipeline tariff and fee revenues over time as services are rendered, based on the volumes transported. As is common in the pipeline transportation industry, our tariffs incorporate a loss allowance factor. We recognize the allowance volumes collected as part of the transaction price and record this non-cash consideration at fair value, measured as of the contract inception date.

Facilities Segment Revenues from Contracts with Customers. The following table presents our Facilities segment revenues from contracts with customers disaggregated by type of activity (in millions):

	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2018
Facilities segment revenues from contracts with customers		
Crude oil, NGL and other terminalling and storage	\$ 174	\$ 511
NGL and natural gas processing and fractionation	87	278
Rail load / unload	24	56
Total Facilities segment revenues from contracts with customers	\$ 285	\$ 845

Our Facilities segment operations generally consist of fee-based activities associated with providing storage, terminalling and throughput services primarily for crude oil, NGL and natural gas, as well as NGL fractionation and isomerization services and natural gas and condensate processing services. Revenues generated in this segment include (i) fees that are generated from storage capacity agreements, (ii) terminal throughput fees that are generated when we receive liquids from one connecting source and deliver the applicable product to another connecting carrier, (iii) fees from NGL fractionation and isomerization services, (iv) fees from natural gas and condensate processing services, (v) fees associated with natural gas park and loan activities, interruptible storage services and wheeling and balancing services (“natural gas storage related activities”) and (vi) loading and unloading fees at our rail terminals.

We generate revenue through a combination of month-to-month and multi-year agreements and processing arrangements. Storage fees are typically recognized in revenue ratably over the term of the contract regardless of the actual storage capacity utilized as our performance obligation is to make available storage capacity for a period of time. Terminal fees (including throughput and rail fees) are recognized as the liquids enter or exit the terminal and are received from or delivered to the connecting carrier or third-party terminal, as applicable. Fees from NGL fractionation and isomerization services and gas processing services are recognized in the period when the services are performed. Natural gas storage related activities fees are recognized in the period the natural gas moves across our header system. We recognize rail loading and unloading fees when the volumes are delivered or received.

Reconciliation to Total Revenues of Reportable Segments. Topic 606 requires us to provide information about the relationship between the disaggregated revenues presented above and segment revenues. These disclosures only include information regarding revenues associated with consolidated entities, and revenues from entities accounted for by the equity method are not included in the disclosures. The following table presents the reconciliation of our revenues from contracts with customers (as described above for each segment) to segment revenues and total revenues as disclosed in our Condensed Consolidated Statement of Operations (in millions):

Three Months Ended September 30, 2018	Transportation	Facilities	Supply and Logistics	Total
Revenues from contracts with customers	\$ 496	\$ 285	\$ 8,534	\$ 9,315
Other items in revenues	2	4	(51)	(45)
Total revenues of reportable segments	\$ 498	\$ 289	\$ 8,483	\$ 9,270
Intersegment revenues				(478)
Total revenues				\$ 8,792

Nine Months Ended September 30, 2018	Transportation	Facilities	Supply and Logistics	Total
Revenues from contracts with customers	\$ 1,416	\$ 845	\$ 24,832	\$ 27,093
Other items in revenues	11	21	(456)	(424)
Total revenues of reportable segments	\$ 1,427	\$ 866	\$ 24,376	\$ 26,669
Intersegment revenues				(1,400)
Total revenues				\$ 25,269

Trade Accounts Receivable and Other Receivables. We generally invoice customers in the month following that in which products or services were provided and generally require payment within 30 days of the invoice date. The following is a reconciliation of trade accounts receivable from revenues from contracts with customers to total Trade accounts receivable and other receivables, net as presented on our Condensed Consolidated Balance Sheet (in millions):

	September 30, 2018	December 31, 2017
Trade accounts receivable arising from revenues from contracts with customers	\$ 2,910	\$ 2,584
Other trade accounts receivables and other receivables ⁽¹⁾	3,482	3,709
Impact due to contractual rights of offset with counterparties	(3,438)	(3,264)
Trade accounts receivable and other receivables, net	\$ 2,954	\$ 3,029

⁽¹⁾ The balance is comprised primarily of accounts receivable associated with buy/sell arrangements that are not within the scope of Topic 606.

Minimum Volume Commitments. We have certain agreements that require counterparties to transport or throughput a minimum volume over an agreed upon period. These contracts are within the scope of Topic 606. In addition, we have certain buy/sell agreements that require customers to deliver a minimum volume over an agreed upon period that are within the scope of ASC Topic 845, *Nonmonetary Transactions* ("Topic 845"). Some of these agreements include make-up rights if the minimum volume is not met. We record a receivable from the counterparty in the period that services are provided or when the transaction occurs, including amounts for deficiency obligations from counterparties associated with minimum volume commitments. If a counterparty has a make-up right associated with a deficiency, we defer the revenue attributable to the counterparty's make-up right as a contract liability and subsequently recognize the revenue at the earlier of when the deficiency volume is delivered or shipped, when the make-up right expires or when it is determined that the counterparty's ability to utilize the make-up right is remote.

At September 30, 2018 and December 31, 2017, counterparty deficiencies associated with agreements (under Topic 606 and Topic 845) that include minimum volume commitments totaled \$62 million and \$57 million, respectively, of which \$42 million and \$37 million, respectively, was recorded as a contract liability, which we refer to as deferred revenue. The remaining balance of \$20 million at both September 30, 2018 and December 31, 2017 was related to deficiencies for which the counterparties had not met their contractual minimum commitments and were not reflected in our Condensed Consolidated Financial Statements as we had not yet billed or collected such amounts.

Contract Balances. Our contract balances consist of amounts received associated with services or sales for which we have not yet completed the related performance obligation. The following table presents the change in the contract liability balance during the nine months ended September 30, 2018 (in millions):

	Contract Liabilities
Balance at December 31, 2017	\$ 90
Amounts recognized as revenue	(78)
Additions ^{(1) (2)}	384
Other	(3)
Balance at September 30, 2018	\$ 393

⁽¹⁾ Includes approximately \$159 million associated with crude oil sales agreements that are entered into in conjunction with storage arrangements and future inventory exchanges. Such amount is expected to be recognized as revenue in the fourth quarter of 2018.

⁽²⁾ Includes \$100 million associated with long-term capacity agreements with Cactus II Pipeline LLC. See Note 12 for additional information.

Remaining Performance Obligations. Topic 606 requires a presentation of information about partially and wholly unsatisfied performance obligations under contracts that exist as of the end of the period. The information includes the amount of consideration allocated to those remaining performance obligations and the timing of revenue recognition of those remaining performance obligations. Certain contracts meet the requirements for the presentation as remaining performance obligations. These arrangements include a fixed minimum level of service, typically a set volume of service, and do not contain any variability other than expected timing within a limited range. These contracts are all within the scope of Topic 606. The following table presents the amount of consideration associated with remaining performance obligations for the population of contracts with external customers meeting the presentation requirements as of September 30, 2018 (in millions):

	Remainder of 2018	2019	2020	2021	2022	2023 and Thereafter
Pipeline revenues supported by minimum volume commitments and long-term capacity agreements ⁽¹⁾	\$ 34	\$ 158	\$ 199	\$ 190	\$ 188	\$ 831
Long-term storage, terminalling and throughput agreements revenues	118	374	296	214	162	573
Total	\$ 152	\$ 532	\$ 495	\$ 404	\$ 350	\$ 1,404

⁽¹⁾ Includes revenues from certain contracts for which the amount and timing of revenue is subject to the completion of underlying construction projects.

The presentation above does not include (i) expected revenues from legacy shippers not underpinned by minimum volume commitments, including pipelines where there are no or limited alternative pipeline transportation options, (ii) intersegment revenues and (iii) the amount of consideration associated with certain income generating contracts, which include a fixed minimum level of service, that are either not within the scope of Topic 606 or do not meet the requirements for presentation as remaining performance obligations under Topic 606. The following are examples of contracts that are not included in the table above because they are not within the scope of Topic 606 or do not meet the Topic 606 requirements for presentation:

- Minimum volume commitments related to the assets of equity method investees — Contracts include those related to the Eagle Ford, BridgeTex, STACK, Caddo, Saddlehorn, White Cliffs, Cheyenne, Diamond and Cactus II pipeline systems;
- Acreage dedications — Contracts include those related to the Permian Basin, Eagle Ford, Central, Rocky Mountain and Canada regions;
- Supply and Logistics contracts within the scope of Topic 845 — Contracts include buy/sell arrangements with future committed volumes on certain Permian Basin, Eagle Ford, Central and Canada region systems;
- All other Supply and Logistics contracts, due to the election of practical expedients related to variable consideration and short-term contracts, as discussed below;
- Transportation and Facilities contracts that are short-term, as discussed below;
- Contracts within the scope of ASC Topic 840, *Leases*; and
- Contracts within the scope of ASC Topic 815, *Derivatives and Hedging*.

We have elected practical expedients to exclude the presentation of remaining performance obligations for variable consideration which relates to wholly unsatisfied performance obligations. Certain contracts do not meet the requirements for presentation of remaining performance obligations under Topic 606 due to variability in amount of performance obligation remaining, variability in the timing of recognition or variability in consideration. Acreage dedications do require us to perform future services but do not contain a minimum level of services and are therefore excluded from this presentation. Long-term supply and logistics arrangements contain variable timing, volumes and/or consideration and are excluded from this presentation. The duration of these contracts varies across the periods presented above.

Additionally, we have elected practical expedients to exclude contracts with terms of one year or less, and therefore exclude the presentation of remaining performance obligations for short-term transportation, storage and processing services, supply and logistics arrangements, including the non-cancelable period of evergreen arrangements, and any other types of arrangements with terms of one year or less.

Note 4—Net Income Per Class A Share

Basic net income per Class A share is determined by dividing net income attributable to PAGP by the weighted average number of Class A shares outstanding during the period. Our Class B and Class C shares do not share in the earnings of the Partnership; accordingly, basic and diluted net income per Class B and Class C share has not been presented.

Diluted net income per Class A share is determined by dividing net income attributable to PAGP by the diluted weighted average number of Class A shares outstanding during the period. For purposes of calculating diluted net income per Class A share, both the net income attributable to PAGP and the diluted weighted average number of Class A shares outstanding consider the impact of possible future exchanges of (i) AAP units and the associated Class B shares into our Class A shares and (ii) certain Class B units of AAP (referred to herein as “AAP Management Units”) into our Class A shares. In addition, the calculation of the diluted weighted average number of Class A shares outstanding considers the effect of potentially dilutive awards under the Plains GP Holdings, L.P. Long-Term Incentive Plan (the “PAGP LTIP”).

All AAP Management Units that have satisfied the applicable performance conditions are considered potentially dilutive. Exchanges of potentially dilutive AAP units and AAP Management Units are assumed to have occurred at the beginning of the period and the incremental income attributable to PAGP resulting from the assumed exchanges is representative of the incremental income that would have been attributable to PAGP if the assumed exchanges occurred on that date. See Note 11 to our Consolidated Financial Statements included in Part IV of our 2017 Annual Report on Form 10-K for information regarding exchanges of AAP units and AAP Management Units. PAGP LTIP awards that are deemed to be dilutive are reduced by a hypothetical share repurchase based on the remaining unamortized fair value, as prescribed by the treasury stock method in guidance issued by the FASB. See Note 16 to our Consolidated Financial Statements included in Part IV of our 2017 Annual Report on Form 10-K for information regarding PAGP LTIP awards.

For the three and nine months ended September 30, 2018 and 2017, the possible exchange of any AAP units and certain AAP Management Units would not have had a dilutive effect on basic net income per Class A share. For the three and nine months ended September 30, 2018 and 2017, our PAGP LTIP awards were dilutive; however, there were less than 0.1 million dilutive LTIP awards for each period, which did not change the presentation of weighted average Class A shares outstanding or net income per Class A share.

The following table sets forth the computation of basic and diluted net income per Class A share (in millions, except per share data):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Basic and Diluted Net Income per Class A Share				
Net income attributable to PAGP	\$ 111	\$ 4	\$ 154	\$ 69
Basic and diluted weighted average Class A shares outstanding	158	154	157	142
Basic and diluted net income per Class A share	\$ 0.70	\$ 0.03	\$ 0.98	\$ 0.49

Note 5—Accounts Receivable, Net

Our accounts receivable are primarily from purchasers and shippers of crude oil and, to a lesser extent, purchasers of NGL and natural gas. To mitigate credit risk related to our accounts receivable, we utilize a rigorous credit review process. We closely monitor market conditions and perform credit reviews of each customer to make a determination with respect to the amount, if any, of open credit to be extended to any given customer and the form and amount of financial performance assurances we require. Such financial assurances are commonly provided to us in the form of advance cash payments, standby letters of credit, credit insurance or parental guarantees. As of September 30, 2018 and December 31, 2017, we had received \$136 million and \$117 million, respectively, of advance cash payments from third parties to mitigate credit risk. We also received \$36 million and \$54 million as of September 30, 2018 and December 31, 2017, respectively, of standby letters of credit to support obligations due from third parties, a portion of which applies to future business. Additionally, in an effort to mitigate credit risk, a significant portion of our transactions with counterparties are settled on a net-cash basis. Furthermore, we also enter into netting agreements (contractual agreements that allow us to offset receivables and payables with those counterparties against each other on our balance sheet) for the majority of our net-cash arrangements.

We review all outstanding accounts receivable balances on a monthly basis and record a reserve for amounts that we expect will not be fully recovered. We do not apply actual balances against the reserve until we have exhausted substantially all collection efforts. At September 30, 2018 and December 31, 2017, substantially all of our trade accounts receivable (net of allowance for doubtful accounts) were less than 30 days past their scheduled invoice date. Our allowance for doubtful accounts receivable totaled \$3 million at both September 30, 2018 and December 31, 2017. Although we consider our allowance for doubtful accounts receivable to be adequate, actual amounts could vary significantly from estimated amounts.

Note 6—Inventory, Linefill and Base Gas and Long-term Inventory

Inventory, linefill and base gas and long-term inventory consisted of the following (barrels and natural gas volumes in thousands and carrying value in millions):

	September 30, 2018				December 31, 2017			
	Volumes	Unit of Measure	Carrying Value	Price/Unit ⁽¹⁾	Volumes	Unit of Measure	Carrying Value	Price/Unit ⁽¹⁾
Inventory								
Crude oil	7,020	barrels	\$ 389	\$ 55.41	7,800	barrels	\$ 402	\$ 51.54
NGL	15,122	barrels	422	\$ 27.91	10,774	barrels	294	\$ 27.29
Other	N/A		13	N/A	N/A		17	N/A
Inventory subtotal			824				713	
Linefill and base gas								
Crude oil	13,033	barrels	756	\$ 58.01	12,340	barrels	719	\$ 58.27
NGL	1,764	barrels	50	\$ 28.34	1,597	barrels	45	\$ 28.18
Natural gas	24,976	Mcf	108	\$ 4.32	24,976	Mcf	108	\$ 4.32
Linefill and base gas subtotal			914				872	
Long-term inventory								
Crude oil	1,882	barrels	112	\$ 59.51	1,870	barrels	105	\$ 56.15
NGL	2,351	barrels	67	\$ 28.50	2,167	barrels	59	\$ 27.23
Long-term inventory subtotal			179				164	
Total			<u>\$ 1,917</u>				<u>\$ 1,749</u>	

⁽¹⁾ Price per unit of measure is comprised of a weighted average associated with various grades, qualities and locations. Accordingly, these prices may not coincide with any published benchmarks for such products.

At the end of each reporting period, we assess the carrying value of our inventory and make any adjustments necessary to reduce the carrying value to the applicable net realizable value. Any resulting adjustments are a component of “Purchases and related costs” on our accompanying Condensed Consolidated Statements of Operations. We recorded a charge of \$35 million during the nine months ended September 30, 2017 primarily related to the writedown of our crude oil inventory due to a decline in prices. Substantially all of this inventory valuation adjustment was offset by the recognition of gains on derivative instruments being utilized to hedge future sales of our crude oil inventory. Such gains were recorded to “Supply and Logistics segment revenues” on our accompanying Condensed Consolidated Statements of Operations. See Note 11 for discussion of our derivative and risk management activities. We did not record such charges during 2018.

Note 7—Divestitures

During the nine months ended September 30, 2018, we received proceeds from asset sales of \$1.298 billion.

BridgeTex. During the third quarter of 2018, we sold a 30% interest in BridgeTex Pipeline Company, LLC (“BridgeTex”) for proceeds of \$868 million, including working capital adjustments, and have retained a 20% interest. We recorded a gain of \$210 million related to this sale, which is included in “Gain on sale of investment in unconsolidated entities” on our Condensed Consolidated Statement of Operations. We continue to account for our remaining interest under the equity method of accounting.

Other. The other assets sold during the nine months ended September 30, 2018 primarily included non-core property and equipment or are associated with the formation of strategic joint ventures and were previously reported in our Facilities and Transportation segments. We recognized losses related to these asset sales of \$2 million for the three months ended September 30, 2018. For the nine months ended September 30, 2018, we recognized a net gain of \$79 million, which is comprised of gains of \$105 million and losses of \$26 million. Such amounts are included in “Depreciation and amortization” on our Condensed Consolidated Statements of Operations.

Note 8—Goodwill

Goodwill by segment and changes in goodwill are reflected in the following table (in millions):

	Transportation	Facilities	Supply and Logistics	Total
Balance at December 31, 2017	\$ 1,070	\$ 988	\$ 508	\$ 2,566
Foreign currency translation adjustments	(8)	(3)	(2)	(13)
Dispositions	(10)	(3)	—	(13)
Balance at September 30, 2018	\$ 1,052	\$ 982	\$ 506	\$ 2,540

We completed our goodwill impairment test as of June 30, 2018 and determined that there was no impairment of goodwill.

Note 9—Debt

Debt consisted of the following (in millions):

	September 30, 2018	December 31, 2017
SHORT-TERM DEBT		
PAA commercial paper notes, bearing a weighted-average interest rate of 3.3% ⁽¹⁾	\$ 60	\$ —
PAA senior secured hedged inventory facility, bearing a weighted-average interest rate of 3.2% and 2.6%, respectively ⁽¹⁾	300	664
Other	69	73
Total short-term debt ⁽²⁾	429	737
LONG-TERM DEBT		
PAA senior notes, net of unamortized discounts and debt issuance costs of \$61 and \$67, respectively	8,939	8,933
PAA commercial paper notes and senior secured hedged inventory facility borrowings ⁽³⁾	—	247
PAA GO Zone term loans, net of debt issuance costs of \$2, bearing a weighted-average interest rate of 2.9%	198	—
Other	3	3
Total long-term debt	9,140	9,183
Total debt ⁽⁴⁾	\$ 9,569	\$ 9,920

⁽¹⁾ We classified these PAA commercial paper notes and credit facility borrowings as short-term as of September 30, 2018 and December 31, 2017, as these notes and borrowings were primarily designated as working capital borrowings, were required to be repaid within one year and were primarily for hedged NGL and crude oil inventory and NYMEX and ICE margin deposits.

⁽²⁾ As of September 30, 2018 and December 31, 2017, balance includes borrowings for cash margin deposits with NYMEX and ICE, which are associated with financial derivatives used for hedging purposes.

⁽³⁾ As of December 31, 2017, we classified a portion of PAA’s commercial paper notes and PAA’s credit facility borrowings as long-term based on PAA’s ability and intent to refinance such amounts on a long-term basis.

(4) PAA’s fixed-rate senior notes had a face value of approximately \$9.0 billion at both September 30, 2018 and December 31, 2017. We estimated the aggregate fair value of these notes as of September 30, 2018 and December 31, 2017 to be approximately \$8.8 billion and \$9.1 billion, respectively. PAA’s fixed-rate senior notes are traded among institutions, and these trades are routinely published by a reporting service. Our determination of fair value is based on reported trading activity near the end of the reporting period. We estimate that the carrying value of outstanding borrowings under the credit facilities and the PAA commercial paper program approximates fair value as interest rates reflect current market rates. The fair value estimates for the PAA senior notes, the credit facilities and the PAA commercial paper program are based upon observable market data and are classified in Level 2 of the fair value hierarchy.

Credit Agreements

PAA Go Zone term loans. In August 2018, PAA entered into an agreement for two \$100 million term loans (the “GO Zone term loans”) from the remarketing of our \$100,000,000 Mississippi Business Finance Corporation Gulf Opportunity Zone Industrial Development Revenue Bonds (SG Resources Mississippi, LLC Project), Series 2009 and our \$100,000,000 Mississippi Business Finance Corporation Gulf Opportunity Zone Industrial Development Revenue Bonds (SG Resources Mississippi, LLC Project), Series 2010 (collectively, the “GO Bonds”). The GO Zone term loans accrue interest in accordance with the interest payable on the related GO Bonds as provided in the GO Bonds Indenture pursuant to which such GO Bonds are issued and governed. The purchasers of the two GO Zone term loans have the right to put, at par, the GO Zone term loans in July 2023. The GO Bonds mature by their terms in May 2032 and August 2035, respectively.

Credit Facilities. In August 2018, PAA extended the maturity dates of its senior unsecured revolving credit facility and senior secured hedged inventory facility by one year to August 2023 and August 2021, respectively, for each extending lender. The PAA 364-day senior unsecured revolving credit facility, which had a borrowing capacity of \$1.0 billion, matured in August 2018.

Borrowings and Repayments

Total borrowings under the PAA credit facilities and commercial paper program for the nine months ended September 30, 2018 and 2017 were approximately \$38.6 billion and \$52.6 billion, respectively. Total repayments under the PAA credit facilities and commercial paper program were approximately \$39.2 billion and \$52.7 billion for the nine months ended September 30, 2018 and 2017, respectively. The variance in total gross borrowings and repayments is impacted by various business and financial factors including, but not limited to, the timing, average term and method of general partnership borrowing activities.

Letters of Credit

In connection with our supply and logistics activities, we provide certain suppliers with irrevocable standby letters of credit to secure our obligation for the purchase and transportation of crude oil, NGL and natural gas. Additionally, we issue letters of credit to support insurance programs, derivative transactions including hedging related margin obligations and construction activities. At September 30, 2018 and December 31, 2017, we had outstanding letters of credit of \$181 million and \$166 million, respectively.

Note 10—Partners’ Capital and Distributions

Shares Outstanding

The following tables present the activity for our Class A shares, Class B shares and Class C shares:

	Class A Shares	Class B Shares	Class C Shares
Outstanding at December 31, 2017	156,111,139	126,984,572	510,925,432
Exchange Right exercises ⁽¹⁾	3,038,396	(3,038,396)	—
Redemption Right exercises ⁽¹⁾	—	(3,306,476)	3,306,476
Issuance of Series A preferred units by a subsidiary	—	—	1,393,926
Other	11,250	—	512,166
Outstanding at September 30, 2018	159,160,785	120,639,700	516,138,000

	Class A Shares	Class B Shares	Class C Shares
Outstanding at December 31, 2016	101,206,526	138,043,486	491,910,863
Conversion of AAP Management Units ⁽¹⁾	—	1,557,860	—
Exchange Right exercises ⁽¹⁾	3,231,281	(3,231,281)	—
Redemption Right exercises ⁽¹⁾	—	(4,959,861)	4,959,861
Sales of Class A shares	50,086,326	—	—
Sales of common units by a subsidiary	—	—	4,033,567
Issuance of common units by a subsidiary for acquisition of interest in Advantage Joint Venture	—	—	1,252,269
Issuances of Series A preferred units by a subsidiary	—	—	3,941,096
Other	19,060	—	603,497
Outstanding at September 30, 2017	154,543,193	131,410,204	506,701,153

⁽¹⁾ See Note 11 to our Consolidated Financial Statements included in Part IV of our 2017 Annual Report on Form 10-K for information regarding conversions of AAP Management Units, Exchange Rights and Redemption Rights.

Distributions

The following table details distributions to our Class A shareholders paid during or pertaining to the first nine months of 2018 (in millions, except per share data):

Distribution Payment Date	Distributions to Class A Shareholders		Distributions per Class A Share	
November 14, 2018 ⁽¹⁾	\$	48	\$	0.30
August 14, 2018	\$	48	\$	0.30
May 15, 2018	\$	47	\$	0.30
February 14, 2018	\$	47	\$	0.30

⁽¹⁾ Payable to shareholders of record at the close of business on October 31, 2018 for the period from July 1, 2018 through September 30, 2018.

Consolidated Subsidiaries

Noncontrolling Interests in Subsidiaries

As of September 30, 2018, noncontrolling interests in our subsidiaries consisted of (i) limited partner interests in PAA including a 65% interest in PAA's common units and PAA's Series A preferred units combined and 100% of PAA's Series B preferred units and (ii) an approximate 43% limited partner interest in AAP.

Subsidiary Distributions

PAA Series A Preferred Unit Distributions. The following table details distributions to PAA's Series A preferred unitholders paid during or pertaining to the first nine months of 2018 (in millions, except unit and per unit data):

Distribution Payment Date	Series A Preferred Unitholders		
	Distribution ⁽²⁾		Distribution per Unit
	Cash	Units	
November 14, 2018 ⁽¹⁾	\$ 37	—	\$ 0.525
August 14, 2018	\$ 37	—	\$ 0.525
May 15, 2018	\$ 37	—	\$ 0.525
February 14, 2018	\$ —	1,393,926	\$ 0.525

- (1) Payable to unitholders of record at the close of business on October 31, 2018 for the period from July 1, 2018 through September 30, 2018. At September 30, 2018, such amount was accrued to distributions payable in “Accounts payable and accrued liabilities” on our Condensed Consolidated Balance Sheet.
- (2) On February 14, 2018, PAA issued additional Series A preferred units in lieu of a cash distribution of \$37 million. With respect to quarters ending on or prior to December 31, 2017 (the “Initial Distribution Period”), PAA elected to pay distributions on its Series A preferred units in additional Series A preferred units. The Initial Distribution Period ended with the February 2018 distribution; as such, with respect to quarters ending after the Initial Distribution Period, distributions on PAA’s Series A preferred units are paid in cash.

PAA Series B Preferred Unit Distributions. Distributions on PAA’s Series B preferred units are payable semiannually in arrears on the 15th day of May and November. The following table details distributions paid or to be paid to PAA’s Series B preferred unitholders (in millions, except per unit data):

Distribution Payment Date	Series B Preferred Unitholders	
	Cash Distribution	Distribution per Unit
November 15, 2018 ⁽¹⁾	\$ 24.5	\$ 30.625
May 15, 2018	\$ 24.5	\$ 30.625

- (1) Payable to unitholders of record at the close of business on November 1, 2018 for the period from May 15, 2018 through November 14, 2018.

As of September 30, 2018, we had accrued approximately \$18 million of distributions payable to PAA’s Series B preferred unitholders in “Accounts payable and accrued liabilities” on our Condensed Consolidated Balance Sheet.

PAA Common Unit Distributions. The following table details distributions paid to PAA’s common unitholders during or pertaining to the first nine months of 2018 (in millions, except per unit data):

Distribution Payment Date	Distributions				Cash Distribution per Common Unit
	Common Unitholders			Total Cash Distribution	
	Public	AAP			
November 14, 2018 ⁽¹⁾	\$ 134	\$ 84	\$ 218	\$ 0.30	
August 14, 2018	\$ 133	\$ 85	\$ 218	\$ 0.30	
May 15, 2018	\$ 133	\$ 85	\$ 218	\$ 0.30	
February 14, 2018	\$ 133	\$ 85	\$ 218	\$ 0.30	

- (1) Payable to unitholders of record at the close of business on October 31, 2018 for the period from July 1, 2018 through September 30, 2018.

AAP Distributions. The following table details the distributions paid to AAP’s partners during or pertaining to the first nine months of 2018 from distributions received from PAA (in millions):

Distribution Payment Date	Distribution to AAP’s Partners		
	Noncontrolling Interests	PAGP	Total Cash Distributions
November 14, 2018 ⁽¹⁾	\$ 36	\$ 48	\$ 84
August 14, 2018	\$ 37	\$ 48	\$ 85
May 15, 2018	\$ 38	\$ 47	\$ 85
February 14, 2018	\$ 38	\$ 47	\$ 85

- (1) Payable to unitholders of record at the close of business on October 31, 2018 for the period from July 1, 2018 through September 30, 2018.

Note 11—Derivatives and Risk Management Activities

We identify the risks that underlie our core business activities and use risk management strategies to mitigate those risks when we determine that there is value in doing so. Our policy is to use derivative instruments for risk management purposes and not for the purpose of speculating on hydrocarbon commodity (referred to herein as “commodity”) price changes. We use various derivative instruments to manage our exposure to (i) commodity price risk, as well as to optimize our profits, (ii) interest rate risk and (iii) currency exchange rate risk. Our commodity price risk management policies and procedures are designed to help ensure that our hedging activities address our risks by monitoring our derivative positions, as well as physical volumes, grades, locations, delivery schedules and storage capacity. Our interest rate and currency exchange rate risk management policies and procedures are designed to monitor our derivative positions and ensure that those positions are consistent with our objectives and approved strategies. When we apply hedge accounting, our policy is to formally document all relationships between hedging instruments and hedged items, as well as our risk management objectives for undertaking the hedge. This process includes specific identification of the hedging instrument and the hedged transaction, the nature of the risk being hedged and how the hedging instrument’s effectiveness will be assessed. Both at the inception of the hedge and throughout the hedging relationship, we assess whether the derivatives employed are highly effective in offsetting changes in cash flows of anticipated hedged transactions.

Commodity Price Risk Hedging

Our core business activities involve certain commodity price-related risks that we manage in various ways, including through the use of derivative instruments. Our policy is to (i) only purchase inventory for which we have a market, (ii) structure our sales contracts so that price fluctuations do not materially affect our operating income and (iii) not acquire and hold physical inventory or derivatives for the purpose of speculating on commodity price changes. The material commodity-related risks inherent in our business activities can be divided into the following general categories:

Commodity Purchases and Sales — In the normal course of our operations, we purchase and sell commodities. We use derivatives to manage the associated risks and to optimize profits. As of September 30, 2018, net derivative positions related to these activities included:

- A net long position of 5.8 million barrels associated with our crude oil purchases, which was unwound ratably during October 2018 to match monthly average pricing.
- A net short time spread position of 15.4 million barrels, which hedges a portion of our anticipated crude oil lease gathering purchases through December 2019.
- A crude oil grade basis position of 68.6 million barrels through December 2020. These derivatives allow us to lock in grade basis differentials.
- A net short position of 16.5 million barrels through February 2020 related to anticipated net sales of our crude oil and NGL inventory.

Pipeline Loss Allowance Oil — As is common in the pipeline transportation industry, our tariffs incorporate a loss allowance factor. We utilize derivative instruments to hedge a portion of the anticipated sales of the loss allowance oil that is to be collected under our tariffs. As of September 30, 2018, our PLA hedges included a short position consisting of crude oil futures of 1.5 million barrels through December 2019 and a long call option position of 1.6 million barrels through December 2020.

Natural Gas Processing/NGL Fractionation — We purchase natural gas for processing and operational needs. Additionally, we purchase NGL mix for fractionation and sell the resulting individual specification products (including ethane, propane, butane and condensate). In conjunction with these activities, we hedge the price risk associated with the purchase of the natural gas and the subsequent sale of the individual specification products. As of September 30, 2018, we had a long natural gas position of 64.9 Bcf which hedges a portion of our natural gas processing and operational needs through December 2020. We also had a short propane position of 11.3 million barrels through December 2020, a short butane position of 3.1 million barrels through December 2020 and a short WTI position of 1.3 million barrels through December 2020. In addition, we had a long power position of 0.4 million megawatt hours, which hedges a portion of our power supply requirements at our Canadian natural gas processing and fractionation plants through December 2020.

Physical commodity contracts that meet the definition of a derivative but are ineligible, or not designated, for the normal purchases and normal sales scope exception are recorded on the balance sheet at fair value, with changes in fair value recognized in earnings. We have determined that substantially all of our physical commodity contracts qualify for the normal purchases and normal sales scope exception.

Interest Rate Risk Hedging

We use interest rate derivatives to hedge the benchmark interest rate associated with interest payments occurring as a result of debt issuances. The derivative instruments we use to manage this risk consist of forward starting interest rate swaps and treasury locks. These derivatives are designated as cash flow hedges. As such, changes in fair value are deferred in AOCI and are reclassified to interest expense as we incur the interest expense associated with the underlying debt.

The following table summarizes the terms of our outstanding interest rate derivatives as of September 30, 2018 (notional amounts in millions):

Hedged Transaction	Number and Types of Derivatives Employed	Notional Amount	Expected Termination Date	Average Rate Locked	Accounting Treatment
Anticipated interest payments	8 forward starting swaps (30-year)	\$ 200	6/14/2019	2.83%	Cash flow hedge
Anticipated interest payments	8 forward starting swaps (30-year)	\$ 200	6/15/2020	3.06%	Cash flow hedge

Currency Exchange Rate Risk Hedging

Because a significant portion of our Canadian business is conducted in CAD we use foreign currency derivatives to minimize the risk of unfavorable changes in exchange rates. These instruments include foreign currency exchange contracts, forwards and options.

As of September 30, 2018, our outstanding foreign currency derivatives include (i) derivatives we use to hedge currency exchange risk created by the use of USD-denominated commodity derivatives to hedge commodity price risk associated with CAD-denominated commodity purchases and sales and (ii) foreign currency exchange contracts we use to manage our Canadian business cash requirements.

The following table summarizes our open forward exchange contracts as of September 30, 2018 (in millions):

		USD	CAD	Average Exchange Rate USD to CAD
Forward exchange contracts that exchange CAD for USD:				
	2018	\$ 174	\$ 227	\$1.00 - \$1.30
Forward exchange contracts that exchange USD for CAD:				
	2018	\$ 418	\$ 543	\$1.00 - \$1.30
	2019	\$ 120	\$ 155	\$1.00 - \$1.30

Preferred Distribution Rate Reset Option

A derivative feature embedded in a contract that does not meet the definition of a derivative in its entirety must be bifurcated and accounted for separately if the economic characteristics and risks of the embedded derivative are not clearly and closely related to those of the host contract. The Preferred Distribution Rate Reset Option of the PAA Series A preferred units is an embedded derivative that must be bifurcated from the related host contract, the PAA partnership agreement, and recorded at fair value on our Condensed Consolidated Balance Sheets. Corresponding changes in fair value are recognized in "Other income/(expense), net" in our Condensed Consolidated Statement of Operations. See Note 11 to our Consolidated Financial Statements included in Part IV of our 2017 Annual Report on Form 10-K for additional information regarding the Series A preferred units and Preferred Distribution Rate Reset Option.

Summary of Financial Impact

We record all open derivatives on the balance sheet as either assets or liabilities measured at fair value. Changes in the fair value of derivatives are recognized currently in earnings unless specific hedge accounting criteria are met. For derivatives that qualify as cash flow hedges, changes in fair value of the effective portion of the hedges are deferred in AOCI and recognized in earnings in the periods during which the underlying physical transactions are recognized in earnings. Derivatives that do not qualify for hedge accounting and the portion of cash flow hedges that are not highly effective in offsetting changes in cash flows of the hedged items are recognized in earnings each period. Cash settlements associated with our derivative activities are classified within the same category as the related hedged item in our Condensed Consolidated Statements of Cash Flows.

A summary of the impact of our derivatives recognized in earnings is as follows (in millions):

Location of Gain/(Loss)	Three Months Ended September 30, 2018			Three Months Ended September 30, 2017		
	Derivatives in Hedging Relationships	Derivatives Not Designated as a Hedge	Total	Derivatives in Hedging Relationships	Derivatives Not Designated as a Hedge	Total
Commodity Derivatives						
Supply and Logistics segment revenues	\$ —	\$ (59)	\$ (59)	\$ —	\$ (226)	\$ (226)
Field operating costs	—	(1)	(1)	—	(4)	(4)
Interest Rate Derivatives						
Interest expense, net	(2)	—	(2)	(10)	—	(10)
Foreign Currency Derivatives						
Supply and Logistics segment revenues	—	5	5	—	3	3
Preferred Distribution Rate Reset Option						
Other income/(expense), net	—	(2)	(2)	—	2	2
Total Gain/(Loss) on Derivatives Recognized in Net Income	\$ (2)	\$ (57)	\$ (59)	\$ (10)	\$ (225)	\$ (235)

Location of Gain/(Loss)	Nine Months Ended September 30, 2018			Nine Months Ended September 30, 2017		
	Derivatives in Hedging Relationships	Derivatives Not Designated as a Hedge	Total	Derivatives in Hedging Relationships	Derivatives Not Designated as a Hedge	Total
Commodity Derivatives						
Supply and Logistics segment revenues	\$ —	\$ (443)	\$ (443)	\$ —	\$ (31)	\$ (31)
Field operating costs	—	—	—	—	(8)	(8)
Depreciation and amortization	—	—	—	(3)	—	(3)
Interest Rate Derivatives						
Interest expense, net	(3)	—	(3)	(16)	—	(16)
Foreign Currency Derivatives						
Supply and Logistics segment revenues	—	(7)	(7)	—	5	5
Preferred Distribution Rate Reset Option						
Other income/(expense), net	—	3	3	—	—	—
Total Gain/(Loss) on Derivatives Recognized in Net Income	\$ (3)	\$ (447)	\$ (450)	\$ (19)	\$ (34)	\$ (53)

The following table summarizes the derivative assets and liabilities on our Condensed Consolidated Balance Sheet on a gross basis as of September 30, 2018 (in millions):

	Asset Derivatives		Liability Derivatives	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments:				
Interest rate derivatives	Other current assets	\$ 12		
	Other long-term assets, net	3		
Total derivatives designated as hedging instruments		<u>\$ 15</u>		<u>\$ —</u>
Derivatives not designated as hedging instruments:				
Commodity derivatives	Other current assets	\$ 146	Other current assets	\$ (358)
	Other long-term assets, net	54	Other long-term assets, net	(2)
	Other current liabilities	60	Other current liabilities	(211)
	Other long-term liabilities and deferred credits	9	Other long-term liabilities and deferred credits	(39)
Foreign currency derivatives	Other current assets	4	Other current assets	(1)
			Other current liabilities	(1)
Preferred Distribution Rate Reset Option			Other long-term liabilities and deferred credits	(19)
Total derivatives not designated as hedging instruments		<u>\$ 273</u>		<u>\$ (631)</u>
Total derivatives		<u>\$ 288</u>		<u>\$ (631)</u>

The following table summarizes the derivative assets and liabilities on our Condensed Consolidated Balance Sheet on a gross basis as of December 31, 2017 (in millions):

	Asset Derivatives		Liability Derivatives	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments:				
Interest rate derivatives	Other current liabilities	\$ 2	Other current liabilities	\$ (27)
			Other long-term liabilities and deferred credits	(11)
Total derivatives designated as hedging instruments		\$ 2		\$ (38)
Derivatives not designated as hedging instruments:				
Commodity derivatives	Other current assets	\$ 73	Other current assets	\$ (227)
	Other long-term assets, net	1	Other current liabilities	(131)
	Other current liabilities	5	Other long-term liabilities and deferred credits	(5)
	Other long-term liabilities and deferred credits	3		
Foreign currency derivatives	Other current assets	6	Other current assets	(2)
Preferred Distribution Rate Reset Option			Other long-term liabilities and deferred credits	(22)
Total derivatives not designated as hedging instruments		\$ 88		\$ (387)
Total derivatives		\$ 90		\$ (425)

Our derivative transactions (other than the Preferred Distribution Rate Reset Option) are governed through ISDA master agreements and clearing brokerage agreements. These agreements include stipulations regarding the right of set off in the event that we or our counterparty default on performance obligations. If a default were to occur, both parties have the right to net amounts payable and receivable into a single net settlement between parties.

Our accounting policy is to offset derivative assets and liabilities executed with the same counterparty when a master netting arrangement exists. Accordingly, we also offset derivative assets and liabilities with amounts associated with cash margin. Our exchange-traded derivatives are transacted through clearing brokerage accounts and are subject to margin requirements as established by the respective exchange. On a daily basis, our account equity (consisting of the sum of our cash balance and the fair value of our open derivatives) is compared to our initial margin requirement resulting in the payment or return of variation margin. The following table provides the components of our net broker receivable:

	September 30, 2018	December 31, 2017
Initial margin	\$ 139	\$ 48
Variation margin posted	222	164
Letters of credit	(102)	—
Net broker receivable	\$ 259	\$ 212

The following table presents information about derivative financial assets and liabilities that are subject to offsetting, including enforceable master netting arrangements (in millions):

	September 30, 2018		December 31, 2017	
	Derivative Asset Positions	Derivative Liability Positions	Derivative Asset Positions	Derivative Liability Positions
Netting Adjustments:				
Gross position - asset/(liability)	\$ 288	\$ (631)	\$ 90	\$ (425)
Netting adjustment	(430)	430	(239)	239
Cash collateral paid	259	—	212	—
Net position - asset/(liability)	\$ 117	\$ (201)	\$ 63	\$ (186)
Balance Sheet Location After Netting Adjustments:				
Other current assets	\$ 62	\$ —	\$ 62	\$ —
Other long-term assets, net	55	—	1	—
Other current liabilities	—	(152)	—	(151)
Other long-term liabilities and deferred credits	—	(49)	—	(35)
	\$ 117	\$ (201)	\$ 63	\$ (186)

As of September 30, 2018, there was a net loss of \$157 million deferred in AOCI. The deferred net loss recorded in AOCI is expected to be reclassified to future earnings contemporaneously with (i) the earnings recognition of the underlying hedged commodity transactions or (ii) interest expense accruals associated with underlying debt instruments. Of the total net loss deferred in AOCI at September 30, 2018, we expect to reclassify a net loss of \$7 million to earnings in the next twelve months. We estimate that substantially all of the remaining deferred loss will be reclassified to earnings through 2050 as the underlying hedged transactions impact earnings. A portion of these amounts is based on market prices as of September 30, 2018; thus, actual amounts to be reclassified will differ and could vary materially as a result of changes in market conditions.

The following table summarizes the net unrealized gain/(loss) recognized in AOCI for derivatives (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Interest rate derivatives, net	\$ 15	\$ (3)	\$ 60	\$ (15)

At September 30, 2018 and December 31, 2017, none of our outstanding derivatives contained credit-risk related contingent features that would result in a material adverse impact to us upon any change in PAA's credit ratings. Although we may be required to post margin on our cleared derivatives as described above, we do not require our non-cleared derivative counterparties to post collateral with us.

Recurring Fair Value Measurements

Derivative Financial Assets and Liabilities

The following table sets forth by level within the fair value hierarchy our financial assets and liabilities that were accounted for at fair value on a recurring basis (in millions):

Recurring Fair Value Measures (1)	Fair Value as of September 30, 2018				Fair Value as of December 31, 2017			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Commodity derivatives	\$ (11)	\$ (326)	\$ (4)	\$ (341)	\$ 5	\$ (278)	\$ (8)	\$ (281)
Interest rate derivatives	—	15	—	15	—	(36)	—	(36)
Foreign currency derivatives	—	2	—	2	—	4	—	4
Preferred Distribution Rate Reset Option	—	—	(19)	(19)	—	—	(22)	(22)
Total net derivative asset/(liability)	\$ (11)	\$ (309)	\$ (23)	\$ (343)	\$ 5	\$ (310)	\$ (30)	\$ (335)

(1) Derivative assets and liabilities are presented above on a net basis but do not include related cash margin deposits.

Level 1

Level 1 of the fair value hierarchy includes exchange-traded commodity derivatives and over-the-counter commodity contracts such as futures and options. The fair value of exchange-traded commodity derivatives and over-the-counter commodity contracts are based on unadjusted quoted prices in active markets.

Level 2

Level 2 of the fair value hierarchy includes exchange-cleared commodity derivatives and over-the-counter commodity, interest rate and foreign currency derivatives that are traded in observable markets with less volume and transaction frequency than active markets. In addition, it includes certain physical commodity contracts. The fair value of these derivatives is based on broker price quotations which are corroborated with market observable inputs.

Level 3

Level 3 of the fair value hierarchy includes certain physical commodity contracts, over-the-counter financial commodity contracts, and the Preferred Distribution Rate Reset Option contained in PAA's partnership agreement which is classified as an embedded derivative.

The fair value of our Level 3 physical commodity contracts and over-the-counter financial commodity contracts are based on valuation models utilizing significant unobservable pricing inputs and timing estimates, which involve management judgment. Significant deviations from these inputs and estimates could result in a material change in fair value to our physical commodity contracts and over-the-counter financial commodity contracts. We report unrealized gains and losses associated with these physical commodity contracts in our Condensed Consolidated Statements of Operations as Supply and Logistics segment revenues. Unrealized gains and losses associated with the over-the counter financial commodity contracts are reported in our Condensed Consolidated Statements of Operations as Field operating costs.

The fair value of the embedded derivative feature contained in PAA's partnership agreement is based on a valuation model that estimates the fair value of the PAA Series A preferred units with and without the Preferred Distribution Rate Reset Option. This model contains inputs, including PAA's common unit price, ten-year U.S. treasury rates, default probabilities and timing estimates which involve management judgment. A significant change in these inputs could result in a material change in fair value to this embedded derivative feature. We report unrealized gains and losses associated with this embedded derivative in our Condensed Consolidated Statements of Operations in "Other income/(expense), net."

To the extent any transfers between levels of the fair value hierarchy occur, our policy is to reflect these transfers as of the beginning of the reporting period in which they occur.

Rollforward of Level 3 Net Asset/(Liability)

The following table provides a reconciliation of changes in fair value of the beginning and ending balances for our derivatives classified as Level 3 (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Beginning Balance	\$ (18)	\$ (30)	\$ (30)	\$ (36)
Net gains/(losses) for the period included in earnings	(5)	(8)	2	(1)
Settlements	—	(1)	7	4
Derivatives entered into during the period	—	(2)	(2)	(8)
Ending Balance	\$ (23)	\$ (41)	\$ (23)	\$ (41)
Change in unrealized gains/(losses) included in earnings relating to Level 3 derivatives still held at the end of the period	\$ (5)	\$ (10)	\$ —	\$ (8)

Note 12—Related Party Transactions

See Note 15 to our Consolidated Financial Statements included in Part IV of our 2017 Annual Report on Form 10-K for a complete discussion of our related party transactions.

Ownership of PAGP Class C Shares

As of September 30, 2018 and December 31, 2017, PAA owned 516,138,000 and 510,925,432, respectively, Class C shares. The Class C shares represent a non-economic limited partner interest in us that provides PAA, as the sole holder, a “pass-through” voting right through which PAA’s common unitholders and Series A preferred unitholders have the effective right to vote, pro rata with the holders of our Class A and Class B shares, for the election of eligible directors.

Transactions with Oxy

As of September 30, 2018, Oxy had a representative on the board of directors of our general partner and owned approximately 11% of the limited partner interests in AAP (which represents an approximate 4% indirect ownership interest in PAA). During the three and nine months ended September 30, 2018 and 2017, we recognized sales and transportation revenues and purchased petroleum products from Oxy. These transactions were conducted at posted tariff rates or prices that we believe approximate market. Included in these transactions was a crude oil buy/sell agreement that includes a multi-year minimum volume commitment. The impact to our Condensed Consolidated Statements of Operations from those transactions is included below (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Revenues	\$ 260	\$ 204	\$ 818	\$ 657
Purchases and related costs ⁽¹⁾	\$ (22)	\$ (68)	\$ (184)	\$ (169)

⁽¹⁾ Crude oil purchases that are part of inventory exchanges under buy/sell transactions are netted with the related sales, with any margin presented in “Purchases and related costs” in our Condensed Consolidated Statements of Operations.

We currently have a netting arrangement with Oxy. Our gross receivable and payable amounts with Oxy were as follows (in millions):

	September 30, 2018	December 31, 2017
Trade accounts receivable and other receivables	\$ 1,039	\$ 1,075
Accounts payable	\$ 976	\$ 990

Transactions with Equity Method Investees

We also have transactions with companies in which we hold an investment accounted for under the equity method of accounting. We recorded revenues of \$3 million and \$1 million during the three months ended September 30, 2018 and 2017, respectively, and \$9 million and \$3 million during the nine months ended September 30, 2018 and 2017, respectively, primarily related to transportation services. In addition, we utilized transportation services and purchased petroleum products provided by these companies. Costs related to these services and product purchases totaled \$146 million and \$124 million for the three months ended September 30, 2018 and 2017, respectively, and \$411 million and \$318 million for the nine months ended September 30, 2018 and 2017, respectively. These costs include amounts associated with a joint tariff administered by an equity method investee, of which \$74 million and \$57 million for the three months ended September 30, 2018 and 2017, respectively, and \$213 million and \$150 million for the nine months ended September 30, 2018 and 2017, respectively, were associated with a PAA wholly-owned pipeline. These transactions were conducted at posted tariff rates or contracted rates or prices that we believe approximate market.

Receivables from our equity method investees totaled \$41 million and \$26 million at September 30, 2018 and December 31, 2017, respectively, and primarily included amounts related to transportation services and amounts owed to us related to expansion projects where we serve as construction manager. Accounts payable to our equity method investees were \$112 million and \$41 million at September 30, 2018 and December 31, 2017, respectively, and primarily included amounts related to transportation services utilized and amounts advanced to us related to expansion projects where we serve as construction manager.

In addition, we have an agreement to transport crude oil at posted tariff rates on a pipeline that is owned by an equity method investee, in which we own a 50% interest. Our commitment to transport is supported by crude oil buy/sell agreements with third parties (including Oxy) with commensurate quantities.

During the nine months ended September 30, 2018, we made net investments in our equity method investees of \$300 million (including amounts contributed to and received from Cactus II Pipeline LLC subsequent to its formation, as discussed further below). Such net investments are primarily related to funding our portion of the development, construction or capital expansion projects of such entities and are reflected in “Investments in unconsolidated entities” on our Condensed Consolidated Statement of Cash Flows.

Cactus II JV Formation. In the second quarter of 2018, a subsidiary of Oxy and another third party each exercised their purchase options for a 20% interest and a 15% interest, respectively, in Cactus II Pipeline LLC (“Cactus II”), which owns the Cactus II pipeline system that is currently under construction. Although we own a majority of Cactus II’s equity, we do not have a controlling financial interest in Cactus II because the other members have substantive participating rights. Therefore, we account for our ownership interest in Cactus II as an equity method investment. Following the exercise of the purchase options, we deconsolidated Cactus II resulting in a reduction of property and equipment of \$74 million (which was representative of the costs incurred to date to construct the pipeline and equivalent to fair value), and we received \$26 million of cash from Cactus II, which represented the other members’ portion of the property and equipment.

In addition, during the second quarter of 2018, we received a \$100 million advance cash payment from Cactus II associated with pipeline capacity agreements, which is recorded as long-term deferred revenue within “Other long-term liabilities and deferred credits” on our Condensed Consolidated Balance Sheet. Such amount will be recognized in revenue ratably over the life of the contracts beginning once the Cactus II pipeline system has been placed into service.

Note 13—Commitments and Contingencies

Loss Contingencies — General

To the extent we are able to assess the likelihood of a negative outcome for a contingency, our assessments of such likelihood range from remote to probable. If we determine that a negative outcome is probable and the amount of loss is reasonably estimable, we accrue an undiscounted liability equal to the estimated amount. If a range of probable loss amounts can be reasonably estimated and no amount within the range is a better estimate than any other amount, then we accrue an undiscounted liability equal to the minimum amount in the range. In addition, we estimate legal fees that we expect to incur associated with loss contingencies and accrue those costs when they are material and probable of being incurred.

We do not record a contingent liability when the likelihood of loss is probable but the amount cannot be reasonably estimated or when the likelihood of loss is believed to be only reasonably possible or remote. For contingencies where an unfavorable outcome is reasonably possible and the impact would be material to our consolidated financial statements, we disclose the nature of the contingency and, where feasible, an estimate of the possible loss or range of loss.

Legal Proceedings — General

In the ordinary course of business, we are involved in various legal proceedings, including those arising from regulatory and environmental matters. Although we are insured against various risks to the extent we believe it is prudent, there is no assurance that the nature and amount of such insurance will be adequate, in every case, to fully protect us from losses arising from current or future legal proceedings.

Taking into account what we believe to be all relevant known facts and circumstances, and based on what we believe to be reasonable assumptions regarding the application of those facts and circumstances to existing laws and regulations, we do not believe that the outcome of the legal proceedings in which we are currently involved (including those described below) will, individually or in the aggregate, have a material adverse effect on our consolidated financial condition, results of operations or cash flows.

Environmental — General

Although over the course of the last several years we have made significant investments in our maintenance and integrity programs, and have hired additional personnel in those areas, we have experienced (and likely will experience future) releases of hydrocarbon products into the environment from our pipeline, rail, storage and other facility operations. These releases can result from accidents or from unpredictable man-made or natural forces and may reach surface water bodies, groundwater aquifers or other sensitive environments. Damages and liabilities associated with any such releases from our existing or future assets could be significant and could have a material adverse effect on our consolidated financial condition, results of operations or cash flows.

We record environmental liabilities when environmental assessments and/or remedial efforts are probable and the amounts can be reasonably estimated. Generally, our recording of these accruals coincides with our completion of a feasibility study or our commitment to a formal plan of action. We do not discount our environmental remediation liabilities to present value. We also record environmental liabilities assumed in business combinations based on the estimated fair value of the environmental obligations caused by past operations of the acquired company. We record receivables for amounts recoverable from insurance or from third parties under indemnification agreements in the period that we determine the costs are probable of recovery.

Environmental expenditures that pertain to current operations or to future revenues are expensed or capitalized consistent with our capitalization policy for property and equipment. Expenditures that result from the remediation of an existing condition caused by past operations and that do not contribute to current or future profitability are expensed.

At September 30, 2018, our estimated undiscounted reserve for environmental liabilities (including liabilities related to the Line 901 incident, as discussed further below) totaled \$126 million, of which \$46 million was classified as short-term and \$80 million was classified as long-term. At December 31, 2017, our estimated undiscounted reserve for environmental liabilities (including liabilities related to the Line 901 incident) totaled \$162 million, of which \$72 million was classified as short-term and \$90 million was classified as long-term. The short- and long-term environmental liabilities referenced above are reflected in “Accounts payable and accrued liabilities” and “Other long-term liabilities and deferred credits,” respectively, on our Condensed Consolidated Balance Sheets. At September 30, 2018, we had recorded receivables totaling \$49 million for amounts probable of recovery under insurance and from third parties under indemnification agreements, of which \$23 million was reflected in “Trade accounts receivable and other receivables, net” and \$26 million was reflected in “Other long-term assets, net” on our Condensed Consolidated Balance Sheet. At December 31, 2017, we had recorded \$55 million of such receivables, of which \$29 million was reflected in “Trade accounts receivable and other receivables, net” and \$26 million was reflected in “Other long-term assets, net” on our Condensed Consolidated Balance Sheet.

In some cases, the actual cash expenditures associated with these liabilities may not occur for three years or longer. Our estimates used in determining these reserves are based on information currently available to us and our assessment of the ultimate outcome. Among the many uncertainties that impact our estimates are the necessary regulatory approvals for, and potential modification of, our remediation plans, the limited amount of data available upon initial assessment of the impact of soil or water contamination, changes in costs associated with environmental remediation services and equipment and the possibility of existing or future legal claims giving rise to additional liabilities. Therefore, although we believe that the reserve is adequate, actual costs incurred (which may ultimately include costs for contingencies that are currently not reasonably estimable or costs for contingencies where the likelihood of loss is currently believed to be only reasonably possible or remote) may be in excess of the reserve and may potentially have a material adverse effect on our consolidated financial condition, results of operations or cash flows.

Specific Legal, Environmental or Regulatory Matters

Line 901 Incident. In May 2015, we experienced a crude oil release from our Las Flores to Gaviota Pipeline (Line 901) in Santa Barbara County, California. A portion of the released crude oil reached the Pacific Ocean at Refugio State Beach through a drainage culvert. Following the release, we shut down the pipeline and initiated our emergency response plan. A Unified Command, which included the United States Coast Guard, the EPA, the California Office of Spill Prevention and Response and the Santa Barbara Office of Emergency Management, was established for the response effort. Clean-up and remediation operations with respect to impacted shoreline and other areas has been determined by the Unified Command to be complete, and the Unified Command has been dissolved. Our estimate of the amount of oil spilled, based on relevant facts, data and information, is approximately 2,934 barrels; of this amount, we estimate that 598 barrels reached the Pacific Ocean.

As a result of the Line 901 incident, several governmental agencies and regulators initiated investigations into the Line 901 incident, various claims have been made against us and a number of lawsuits have been filed against us. We may be subject to additional claims, investigations and lawsuits, which could materially impact the liabilities and costs we currently expect to incur as a result of the Line 901 incident. Set forth below is a brief summary of actions and matters that are currently pending:

On May 21, 2015, we received a corrective action order from the United States Department of Transportation's Pipeline and Hazardous Materials Safety Administration ("PHMSA"), the governmental agency with jurisdiction over the operation of Line 901 as well as over a second stretch of pipeline extending from Gaviota Pump Station in Santa Barbara County to Emidio Pump Station in Kern County, California (Line 903), requiring us to shut down, purge, review, remediate and test Line 901. The corrective action order was subsequently amended on June 3, 2015; November 13, 2015; and June 16, 2016 to require us to take additional corrective actions with respect to both Lines 901 and 903 (as amended, the "CAO"). Among other requirements, the CAO obligated us to conduct a root cause failure analysis with respect to Line 901 and present remedial work plans and restart plans to PHMSA prior to returning Line 901 and 903 to service; the CAO also imposed a pressure restriction on the section of Line 903 between Pentland Pump Station and Emidio Pump Station and required us to take other specified actions with respect to both Lines 901 and 903. We intend to continue to comply with the CAO and to cooperate with any other governmental investigations relating to or arising out of the release. Excavation and removal of the affected section of the pipeline was completed on May 28, 2015. Line 901 and Line 903 have been purged and are not currently operational, with the exception of the Pentland to Emidio segment of Line 903, which remains in service under a pressure restriction. No timeline has been established for the restart of Line 901 or Line 903.

On February 17, 2016, PHMSA issued a Preliminary Factual Report of the Line 901 failure, which contains PHMSA's preliminary findings regarding factual information about the events leading up to the accident and the technical analysis that has been conducted to date. On May 19, 2016, PHMSA issued its final Failure Investigation Report regarding the Line 901 incident. PHMSA's findings indicate that the direct cause of the Line 901 incident was external corrosion that thinned the pipe wall to a level where it ruptured suddenly and released crude oil. PHMSA also concluded that there were numerous contributory causes of the Line 901 incident, including ineffective protection against external corrosion, failure to detect and mitigate the corrosion and a lack of timely detection and response to the rupture. The report also included copies of various engineering and technical reports regarding the incident. By virtue of its statutory authority, PHMSA has the power and authority to impose fines and penalties on us and cause civil or criminal charges to be brought against us. While to date PHMSA has not imposed any such fines or penalties or brought any such civil or criminal charges with respect to the Line 901 release, their investigation is still open and we are likely to have fines or penalties imposed upon us, and we may have civil or criminal charges brought against us, in the future.

In late May of 2015, the California Attorney General's Office and the District Attorney's office for the County of Santa Barbara began investigating the Line 901 incident to determine whether any applicable state or local laws had been violated. On May 16, 2016, PAA and one of its employees were charged by a California state grand jury, pursuant to an indictment filed in California Superior Court, Santa Barbara County (the "May 2016 Indictment"), with alleged violations of California law in connection with the Line 901 incident. The May 2016 Indictment included a total of 46 counts against PAA. On July 28, 2016, at an arraignment hearing held in California Superior Court in Santa Barbara County, PAA pled not guilty to all counts. Between May of 2016 and May of 2018, 31 of the criminal charges against PAA (including one felony charge) and all of the criminal charges against our employee, were dismissed. The remaining 15 charges were the subject of a jury trial in California Superior Court in Santa Barbara County that began in May of 2018. The jury returned a verdict on September 7, 2018, pursuant to which we were (i) found guilty on one felony discharge count and eight misdemeanor counts (which included one reporting count, one strict liability discharge count and six strict liability animal takings counts) and (ii) found not guilty on one strict liability animal takings count. The jury deadlocked on three counts (including two felony discharge counts and one strict liability animal takings count), and two misdemeanor discharge counts were dropped. We are in the process of pursuing and evaluating our post-trial options, which include the possibility of an appeal. We do not anticipate that the fines or penalties imposed as a result of the jury's decision will have a material adverse impact on the financial position or operations of the Partnership.

Also in late May of 2015, the United States Attorney for the Department of Justice, Central District of California, Environmental Crimes Section ("DOJ") began an investigation into whether there were any violations of federal criminal statutes in connection with the Line 901 incident, including potential violations of the federal Clean Water Act. We have cooperated with the DOJ's investigation by responding to their requests for documents and access to our employees. Consistent with the terms of our governing organizational documents, we are funding our employees' defense costs, including the costs of separate counsel engaged to represent such individuals. On August 26, 2015, we received a Request for Information from the EPA relating to Line 901. We have provided various responsive materials to date and we will continue to do so in the future in cooperation with the EPA. While to date no civil actions or criminal charges with respect to the Line 901 release, other than those brought pursuant to the May 2016 Indictment and a separate civil claim brought by the California Attorney General on

behalf of the California State Lands Commission, have been brought against PAA or any of its affiliates, officers or employees by PHMSA, DOJ, EPA, the California Attorney General, the Santa Barbara District Attorney or the California Department of Fish and Wildlife, and no fines or penalties have been imposed by such governmental agencies, the investigations being conducted by such agencies are still open and we may have fines or penalties imposed upon us, our officers or our employees, or civil actions or criminal charges brought against us, our officers or our employees in the future, whether by those or other governmental agencies.

Shortly following the Line 901 incident, we established a claims line and encouraged any parties that were damaged by the release to contact us to discuss their damage claims. We have received a number of claims through the claims line and we have been processing those claims and making payments as appropriate. In addition, we have also had nine class action lawsuits filed against us, six of which have been administratively consolidated into a single proceeding in the United States District Court for the Central District of California. In general, the plaintiffs are seeking to establish different classes of claimants that have allegedly been damaged by the release. To date, the court has certified three sub-classes of claimants and denied certification of the other proposed sub-class. The sub-classes that have been certified include (i) commercial fishermen who landed fish in certain specified fishing blocks in the waters adjacent to Santa Barbara County or persons or businesses who resold commercial seafood landed in such areas; (ii) individuals or businesses who were employed by or had contracts with certain designated oil platforms and related onshore processing facilities in the vicinity of the release as of the date of the release and (iii) beachfront property and easement owners whose properties were oiled. The Ninth Circuit Court of Appeals has granted our petition for leave to appeal the oil industry class certification. We are also defending a separate class action lawsuit proceeding in the United States District Court for the Central District of California brought on behalf of the Line 901 and Line 903 easement holders seeking injunctive relief as well as compensatory damages.

There have also been two securities law class action lawsuits filed on behalf of certain purported investors in PAA and/or PAGP against PAA, PAGP and/or certain of their respective officers, directors and underwriters. Both of these lawsuits have been consolidated into a single proceeding in the United States District Court for the Southern District of Texas. In general, these lawsuits allege that the various defendants violated securities laws by misleading investors regarding the integrity of PAA's pipelines and related facilities through false and misleading statements, omission of material facts and concealing of the true extent of the spill. The plaintiffs claim unspecified damages as a result of the reduction in value of their investments in PAA and PAGP, which they attribute to the alleged wrongful acts of the defendants. PAA and PAGP, and the other defendants, denied the allegations in, and moved to dismiss these lawsuits. On March 29, 2017, the Court ruled in our favor dismissing all claims against all defendants. Plaintiffs refiled their complaint. On April 2, 2018, the Court dismissed all of the refiled claims against all defendants with prejudice. Plaintiffs have appealed the dismissal. Consistent with and subject to the terms of our governing organizational documents (and to the extent applicable, insurance policies), we have indemnified and funded the defense costs of our officers and directors in connection with this lawsuit; we have also indemnified and funded the defense costs of our underwriters pursuant to the terms of the underwriting agreements we previously entered into with such underwriters.

In addition, four unitholder derivative lawsuits have been filed by certain purported investors in PAA against PAA, certain of its affiliates and certain officers and directors. One lawsuit was filed in State District Court in Harris County, Texas and subsequently dismissed by the Court. Two of these lawsuits were filed in the United States District Court for the Southern District of Texas and were administratively consolidated into one action and later dismissed on the basis that Plains Partnership agreements require that derivative suits be filed in Delaware Chancery Court.

Following the order dismissing the Texas Federal Court suits, a new derivative suit brought by different plaintiffs was filed in Delaware Chancery Court. In general, these derivative lawsuits allege that the various defendants breached their fiduciary duties, engaged in gross mismanagement and made false and misleading statements, among other similar allegations, in connection with their management and oversight of PAA during the period of time leading up to and following the Line 901 release. The plaintiffs in the remaining lawsuit claim that PAA suffered unspecified damages as a result of the actions of the various defendants and seek to hold the defendants liable for such damages, in addition to other remedies. The defendants deny the allegations in this lawsuit and have responded accordingly. Consistent with and subject to the terms of our governing organizational documents (and to the extent applicable, insurance policies), we are indemnifying and funding the defense costs of our officers and directors in connection with this lawsuit.

We have also received several other individual lawsuits and complaints from companies, governmental agencies and individuals alleging damages arising out of the Line 901 incident. These lawsuits and claims generally seek compensatory and punitive damages, and in some cases permanent injunctive relief.

In addition to the foregoing, as the “responsible party” for the Line 901 incident we are liable for various costs and for certain natural resource damages under the Oil Pollution Act, and we also have exposure to the payment of additional fines, penalties and costs under other applicable federal, state and local laws, statutes and regulations. To the extent any such costs are reasonably estimable, we have included an estimate of such costs in the loss accrual described below.

Taking the foregoing into account, as of September 30, 2018, we estimate that the aggregate total costs we have incurred or will incur with respect to the Line 901 incident will be approximately \$335 million, which estimate includes actual and projected emergency response and clean-up costs, natural resource damage assessments and certain third party claims settlements, as well as estimates for fines, penalties and certain legal fees. We accrue such estimates of aggregate total costs to “Field operating costs” in our Condensed Consolidated Statement of Operations. This estimate considers our prior experience in environmental investigation and remediation matters and available data from, and in consultation with, our environmental and other specialists, as well as currently available facts and presently enacted laws and regulations. We have made assumptions for (i) the duration of the natural resource damage assessment process and the ultimate amount of damages determined, (ii) the resolution of certain third party claims and lawsuits, but excluding claims and lawsuits with respect to which losses are not probable and reasonably estimable, and excluding future claims and lawsuits, (iii) the determination and calculation of fines and penalties, but excluding fines and penalties that are not probable and reasonably estimable and (iv) the nature, extent and cost of legal services that will be required in connection with all lawsuits, claims and other matters requiring legal or expert advice associated with the Line 901 incident. Our estimate does not include any lost revenue associated with the shutdown of Line 901 or 903 and does not include any liabilities or costs that are not reasonably estimable at this time or that relate to contingencies where we currently regard the likelihood of loss as being only reasonably possible or remote. We believe we have accrued adequate amounts for all probable and reasonably estimable costs; however, this estimate is subject to uncertainties associated with the assumptions that we have made. For example, the amount of time it takes for us to resolve all of the current and future lawsuits, claims and investigations that relate to the Line 901 incident could turn out to be significantly longer than we have assumed, and as a result the costs we incur for legal services could be significantly higher than we have estimated. In addition, with respect to fines and penalties, the ultimate amount of any fines and penalties assessed against us depends on a wide variety of factors, many of which are not estimable at this time. Where fines and penalties are probable and estimable, we have included them in our estimate, although such estimates could turn out to be wrong. Accordingly, our assumptions and estimates may turn out to be inaccurate and our total costs could turn out to be materially higher; therefore, we can provide no assurance that we will not have to accrue significant additional costs in the future with respect to the Line 901 incident.

As of September 30, 2018, we had a remaining undiscounted gross liability of \$65 million related to this event, of which approximately \$37 million is presented as a current liability in “Accounts payable and accrued liabilities” on our Condensed Consolidated Balance Sheet, with the remainder presented in “Other long-term liabilities and deferred credits”. We maintain insurance coverage, which is subject to certain exclusions and deductibles, in the event of such environmental liabilities. Subject to such exclusions and deductibles, we believe that our coverage is adequate to cover the current estimated total emergency response and clean-up costs, claims settlement costs and remediation costs and we believe that this coverage is also adequate to cover any potential increase in the estimates for these costs that exceed the amounts currently identified. Through September 30, 2018, we had collected, subject to customary reservations, \$180 million out of the approximate \$220 million of release costs that we believe are probable of recovery from insurance carriers, net of deductibles. Therefore, as of September 30, 2018, we have recognized a receivable of approximately \$40 million for the portion of the release costs that we believe is probable of recovery from insurance, net of deductibles and amounts already collected. Of this amount, approximately \$16 million is recognized as a current asset in “Trade accounts receivable and other receivables, net” on our Condensed Consolidated Balance Sheet, with the remainder in “Other long-term assets, net”. We have completed the required clean-up and remediation work as determined by the Unified Command and the Unified Command has been dissolved; however, we expect to make payments for additional costs associated with restoration of the impacted areas, as well as natural resource damage assessment and compensation, legal, professional and regulatory costs, in addition to fines and penalties, during future periods.

Note 14—Operating Segments

We manage our operations through three operating segments: Transportation, Facilities and Supply and Logistics. See Note 3 for a summary of the types of products and services from which each segment derives its revenues. Our CODM (our Chief Executive Officer) evaluates segment performance based on measures including Segment Adjusted EBITDA (as defined below) and maintenance capital investment.

We define Segment Adjusted EBITDA as revenues and equity earnings in unconsolidated entities less (a) purchases and related costs, (b) field operating costs and (c) segment general and administrative expenses, plus our proportionate share of the depreciation and amortization expense and gains or losses on significant asset sales of unconsolidated entities, and further

adjusted for certain selected items including (i) gains and losses on derivative instruments that are related to underlying activities in another period (or the reversal of such adjustments from a prior period), gains and losses on derivatives that are related to investing activities (such as the purchase of linefill) and inventory valuation adjustments, as applicable, (ii) long-term inventory costing adjustments, (iii) charges for obligations that are expected to be settled with the issuance of equity instruments, (iv) amounts related to deficiencies associated with minimum volume commitments, net of the applicable amounts subsequently recognized into revenue and (v) other items that our CODM believes are integral to understanding our core segment operating performance. Segment Adjusted EBITDA excludes depreciation and amortization.

Maintenance capital consists of capital expenditures for the replacement and/or refurbishment of partially or fully depreciated assets in order to maintain the operating and/or earnings capacity of our existing assets.

The following tables reflect certain financial data for each segment (in millions):

Three Months Ended September 30, 2018	Transportation	Facilities	Supply and Logistics	Intersegment Adjustment	Total
Revenues:					
External customers ⁽¹⁾	\$ 292	\$ 149	\$ 8,482	\$ (131)	\$ 8,792
Intersegment ⁽²⁾	206	140	1	131	478
Total revenues of reportable segments	\$ 498	\$ 289	\$ 8,483	\$ —	\$ 9,270
Equity earnings in unconsolidated entities	\$ 110	\$ —	\$ —		\$ 110
Segment Adjusted EBITDA	\$ 388	\$ 173	\$ 75		\$ 636
Maintenance capital	\$ 41	\$ 33	\$ 4		\$ 78

Three Months Ended September 30, 2017	Transportation	Facilities	Supply and Logistics	Intersegment Adjustment	Total
Revenues:					
External customers ⁽¹⁾	\$ 274	\$ 140	\$ 5,573	\$ (114)	\$ 5,873
Intersegment ⁽²⁾	172	151	1	114	438
Total revenues of reportable segments	\$ 446	\$ 291	\$ 5,574	\$ —	\$ 6,311
Equity earnings in unconsolidated entities	\$ 80	\$ —	\$ —		\$ 80
Segment Adjusted EBITDA	\$ 363	\$ 182	\$ (56)		\$ 489
Maintenance capital	\$ 32	\$ 28	\$ 3		\$ 63

Nine Months Ended September 30, 2018	Transportation	Facilities	Supply and Logistics	Intersegment Adjustment	Total
Revenues:					
External customers ⁽¹⁾	\$ 808	\$ 437	\$ 24,374	\$ (350)	\$ 25,269
Intersegment ⁽²⁾	619	429	2	350	1,400
Total revenues of reportable segments	\$ 1,427	\$ 866	\$ 24,376	\$ —	\$ 26,669
Equity earnings in unconsolidated entities	\$ 281	\$ —	\$ —		\$ 281
Segment Adjusted EBITDA	\$ 1,083	\$ 530	\$ 120		\$ 1,733
Maintenance capital	\$ 102	\$ 74	\$ 10		\$ 186

Nine Months Ended September 30, 2017	Transportation	Facilities	Supply and Logistics	Intersegment Adjustment	Total
Revenues:					
External customers ⁽¹⁾	\$ 757	\$ 410	\$ 17,749	\$ (298)	\$ 18,618
Intersegment ⁽²⁾	503	463	8	298	1,272
Total revenues of reportable segments	\$ 1,260	\$ 873	\$ 17,757	\$ —	\$ 19,890
Equity earnings in unconsolidated entities	\$ 201	\$ —	\$ —		\$ 201
Segment Adjusted EBITDA	\$ 933	\$ 550	\$ (32)		\$ 1,451
Maintenance capital	\$ 89	\$ 94	\$ 11		\$ 194

- (1) Transportation revenues from external customers include certain inventory exchanges with our customers where our Supply and Logistics segment has transacted the inventory exchange and serves as the shipper on our pipeline systems. See Note 3 for a discussion of our related accounting policy. We have included an estimate of the revenues from these inventory exchanges in our Transportation segment revenue from external customers presented above and adjusted those revenues out such that Total revenue from External customers reconciles to our Condensed Consolidated Statements of Operations. This presentation is consistent with the information provided to our CODM.
- (2) Segment revenues include intersegment amounts that are eliminated in Purchases and related costs and Field operating costs in our Condensed Consolidated Statements of Operations. Intersegment activities are conducted at posted tariff rates where applicable, or otherwise at rates similar to those charged to third parties or rates that we believe approximate market at the time the agreement is executed or renegotiated.

Segment Adjusted EBITDA Reconciliation

The following table reconciles Segment Adjusted EBITDA to net income attributable to PAGP (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Segment Adjusted EBITDA	\$ 636	\$ 489	\$ 1,733	\$ 1,451
Adjustments ⁽¹⁾ :				
Depreciation and amortization of unconsolidated entities ⁽²⁾	(15)	(13)	(44)	(31)
Gains/(losses) from derivative activities net of inventory valuation adjustments ⁽³⁾	110	(216)	(107)	86
Long-term inventory costing adjustments ⁽⁴⁾	10	16	18	2
Deficiencies under minimum volume commitments, net ⁽⁵⁾	4	(8)	(9)	(5)
Equity-indexed compensation expense ⁽⁶⁾	(14)	(7)	(37)	(18)
Net gain/(loss) on foreign currency revaluation ⁽⁷⁾	3	14	(5)	27
Line 901 incident ⁽⁸⁾	—	—	—	(12)
Significant acquisition-related expenses ⁽⁹⁾	—	—	—	(6)
Unallocated general and administrative expenses	(1)	—	(3)	(3)
Depreciation and amortization	(131)	(152)	(307)	(403)
Gain on sale of investment in unconsolidated entities	210	—	210	—
Interest expense, net	(110)	(134)	(327)	(390)
Other income/(expense), net	(3)	(1)	8	(6)
Income/(loss) before tax	699	(12)	1,130	692
Income tax (expense)/benefit	(23)	43	(84)	(85)
Net income	676	31	1,046	607
Net income attributable to noncontrolling interests	(565)	(27)	(892)	(538)
Net income attributable to PAGP	\$ 111	\$ 4	\$ 154	\$ 69

- (1) Represents adjustments utilized by our CODM in the evaluation of segment results.
- (2) Includes our proportionate share of the depreciation and amortization and gains and losses on significant asset sales of equity method investments.
- (3) We use derivative instruments for risk management purposes and our related processes include specific identification of hedging instruments to an underlying hedged transaction. Although we identify an underlying transaction for each derivative instrument we enter into, there may not be an accounting hedge relationship between the instrument and the underlying transaction. In the course of evaluating our results, we identify the earnings that were recognized during the period related to derivative instruments for which the identified underlying transaction does not occur in the current period and exclude the related gains and losses in determining Segment Adjusted EBITDA. In addition, we exclude gains and losses on derivatives that are related to investing activities, such as the purchase of linefill. We also exclude the impact of corresponding inventory valuation adjustments, as applicable.

- (4) We carry crude oil and NGL inventory that is comprised of minimum working inventory requirements in third-party assets and other working inventory that is needed for our commercial operations. We consider this inventory necessary to conduct our operations and we intend to carry this inventory for the foreseeable future. Therefore, we classify this inventory as long-term on our balance sheet and do not hedge the inventory with derivative instruments (similar to linefill in our own assets). We exclude the impact of changes in the average cost of the long-term inventory (that result from fluctuations in market prices) and writedowns of such inventory that result from price declines from Segment Adjusted EBITDA.
- (5) We have certain agreements that require counterparties to deliver, transport or throughput a minimum volume over an agreed upon period. Substantially all of such agreements were entered into with counterparties to economically support the return on our capital expenditure necessary to construct the related asset. Some of these agreements include make-up rights if the minimum volume is not met. We record a receivable from the counterparty in the period that services are provided or when the transaction occurs, including amounts for deficiency obligations from counterparties associated with minimum volume commitments. If a counterparty has a make-up right associated with a deficiency, we defer the revenue attributable to the counterparty's make-up right and subsequently recognize the revenue at the earlier of when the deficiency volume is delivered or shipped, when the make-up right expires or when it is determined that the counterparty's ability to utilize the make-up right is remote. We include the impact of amounts billed to counterparties for their deficiency obligation, net of applicable amounts subsequently recognized into revenue, as a selected item impacting comparability. Our CODM views the inclusion of the contractually committed revenues associated with that period as meaningful to Segment Adjusted EBITDA as the related asset has been constructed, is standing ready to provide the committed service and the fixed operating costs are included in the current period results.
- (6) Includes equity-indexed compensation expense associated with awards that will or may be settled in PAA common units.
- (7) Includes gains and losses from the revaluation of foreign currency transactions and monetary assets and liabilities.
- (8) Includes costs recognized during the period related to the Line 901 incident that occurred in May 2015, net of amounts we believe are probable of recovery from insurance. See Note 13 for additional information regarding the Line 901 incident.
- (9) Includes acquisition-related expenses associated with the acquisition of the Alpha Crude Connector Gathering System (the "ACC Acquisition"). See Note 6 to our Consolidated Financial Statements included in Part IV of our 2017 Annual Report on Form 10-K for additional discussion.

Item 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Introduction

The following discussion is intended to provide investors with an understanding of our financial condition and results of our operations and should be read in conjunction with our historical Consolidated Financial Statements and accompanying notes and Management’s Discussion and Analysis of Financial Condition and Results of Operations as presented in our 2017 Annual Report on Form 10-K. For more detailed information regarding the basis of presentation for the following financial information, see the Condensed Consolidated Financial Statements and related notes that are contained in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Our discussion and analysis includes the following:

- Executive Summary
- Acquisitions and Capital Projects
- Results of Operations
- Liquidity and Capital Resources
- Off-Balance Sheet Arrangements
- Recent Accounting Pronouncements
- Critical Accounting Policies and Estimates
- Other Items
- Forward-Looking Statements

Executive Summary

Company Overview

We are a Delaware limited partnership formed on July 17, 2013 that has elected to be taxed as a corporation for United States federal income tax purposes. As of September 30, 2018, our sole assets consisted of (i) a 100% managing member interest in Plains All American GP LLC (“GP LLC”) that has also elected to be taxed as a corporation for United States federal income tax purposes and (ii) an approximate 57% limited partner interest in AAP through our direct ownership of approximately 158.2 million AAP units and indirect ownership of approximately 1.0 million AAP units through GP LLC. GP LLC is a Delaware limited liability company that also holds the non-economic general partner interest in AAP. AAP is a Delaware limited partnership that, as of September 30, 2018, directly owned a limited partner interest in PAA through its ownership of approximately 281.0 million PAA common units (approximately 35% of PAA’s total outstanding common units and Series A preferred units combined). AAP is the sole member of PAA GP LLC (“PAA GP”), a Delaware limited liability company that directly holds the non-economic general partner interest in PAA.

PAA owns and operates midstream energy infrastructure and provides logistics services primarily for crude oil, NGL and natural gas. PAA owns an extensive network of pipeline transportation, terminalling, storage and gathering assets in key crude oil and NGL producing basins and transportation corridors and at major market hubs in the United States and Canada. PAA’s operations are conducted directly and indirectly through its operating subsidiaries and are managed through three operating segments: Transportation, Facilities and Supply and Logistics. See “—Results of Operations —Analysis of Operating Segments” for further discussion.

Overview of Operating Results, Capital Investments and Other Significant Activities

During the first nine months of 2018, we recognized net income of \$1.046 billion as compared to net income of \$607 million recognized during the first nine months of 2017. The increase in net income over the comparative periods was driven by:

- More favorable results from our Transportation segment, primarily from our pipelines in the Permian Basin region, driven by higher volumes from increased production and our recently completed capital expansion projects;

- Favorable regional crude oil differentials and higher lease gathering and NGL margins in our Supply and Logistics segment;
- Lower depreciation and amortization expense due to net gains recognized during the 2018 period associated with asset sales;
- A gain on the sale of a portion of our interest in BridgeTex in the third quarter of 2018; and
- Lower interest expense primarily driven by a lower weighted average debt balance in the 2018 period as a result of our efforts to implement our Leverage Reduction Plan announced in August 2017. See “—Executive Summary—Overview of Operating Results, Capital Investments and Other Significant Activities” in Item 7 of our 2017 Annual Report on Form 10-K for further discussion of our Leverage Reduction Plan; partially offset by
- The negative impact, primarily in our Supply and Logistics segment, associated with the difference between losses recognized in the 2018 period from the mark-to-market of certain derivative instruments, as compared to gains recognized in the prior period; and
- Lower operating results due to asset sales completed during 2017 and 2018 as part of our divestiture program.

See further discussion of our operating results in the “—Results of Operations—Analysis of Operating Segments” and “—Other Income and Expenses” sections below.

We invested \$1.37 billion in midstream infrastructure projects during the nine months ended September 30, 2018, and we expect expansion capital for the full year of 2018 to be approximately \$1.95 billion, which will be primarily focused in the Permian Basin. See the “—Acquisitions and Capital Projects” section below for additional information.

We continued to advance our divestiture program, completing asset sales for total proceeds of approximately \$1.3 billion during the nine months ended September 30, 2018, including the sale of a portion of our interest in BridgeTex during the third quarter of 2018. We also paid approximately \$753 million of cash distributions to our Class A shareholders and noncontrolling interests during the nine months ended September 30, 2018. In addition, in the fourth quarter of 2018, we will pay aggregate cash distributions of \$280 million to our Class A shareholders and noncontrolling interests, including PAA’s common and preferred unitholders.

Acquisitions and Capital Projects

The following table summarizes our expenditures for acquisition capital, expansion capital and maintenance capital (in millions):

	Nine Months Ended September 30,	
	2018	2017
Acquisition capital ^{(1) (2)}	\$ —	\$ 1,325
Expansion capital ^{(2) (3)}	1,370	893
Maintenance capital ⁽³⁾	186	194
	\$ 1,556	\$ 2,412

⁽¹⁾ Acquisition capital for the first nine months of 2017 primarily relates to the ACC Acquisition.

⁽²⁾ Acquisitions of initial investments or additional interests in unconsolidated entities are included in “Acquisition capital.” Subsequent contributions to unconsolidated entities related to expansion projects of such entities are recognized in “Expansion capital.” We account for our investments in such entities under the equity method of accounting.

⁽³⁾ Capital expenditures made to expand the existing operating and/or earnings capacity of our assets are classified as expansion capital. Capital expenditures for the replacement and/or refurbishment of partially or fully depreciated assets in order to maintain the operating and/or earnings capacity of our existing assets are classified as maintenance capital.

Expansion Capital Projects

The following table summarizes our notable projects in progress during 2018 and the estimated cost for the year ending December 31, 2018 (in millions):

Projects	2018
Permian Basin Takeaway Pipeline Projects	\$ 925
Complementary Permian Basin Projects	675
Selected Facilities Projects ⁽¹⁾	65
Other Projects	285
Total Projected 2018 Expansion Capital Expenditures	\$ 1,950

⁽¹⁾ Includes projects at our St. James, Fort Saskatchewan and Cushing terminals.

Results of Operations

The following table sets forth an overview of our consolidated financial results calculated in accordance with GAAP (in millions, except per share data):

	Three Months Ended September 30,		Variance		Nine Months Ended September 30,		Variance	
	2018	2017	\$	%	2018	2017	\$	%
Transportation Segment Adjusted EBITDA ⁽¹⁾	\$ 388	\$ 363	\$ 25	7 %	\$ 1,083	\$ 933	\$ 150	16 %
Facilities Segment Adjusted EBITDA ⁽¹⁾	173	182	(9)	(5)%	530	550	(20)	(4)%
Supply and Logistics Segment Adjusted EBITDA ⁽¹⁾	75	(56)	131	234 %	120	(32)	152	475 %
Adjustments:								
Depreciation and amortization of unconsolidated entities	(15)	(13)	(2)	(15)%	(44)	(31)	(13)	(42)%
Selected items impacting comparability - Segment Adjusted EBITDA	113	(201)	314	**	(140)	74	(214)	**
Unallocated general and administrative expenses	(1)	—	(1)	N/A	(3)	(3)	—	— %
Depreciation and amortization	(131)	(152)	21	14 %	(307)	(403)	96	24 %
Gain on sale of investment in unconsolidated entities	210	—	210	N/A	210	—	210	N/A
Interest expense, net	(110)	(134)	24	18 %	(327)	(390)	63	16 %
Other income/(expense), net	(3)	(1)	(2)	**	8	(6)	14	**
Income tax (expense)/benefit	(23)	43	(66)	(153)%	(84)	(85)	1	1 %
Net income	676	31	645	**	1,046	607	439	72 %
Net income attributable to noncontrolling interests	(565)	(27)	(538)	**	(892)	(538)	(354)	(66)%
Net income attributable to PAGP	<u>\$ 111</u>	<u>\$ 4</u>	<u>\$ 107</u>	<u>**</u>	<u>\$ 154</u>	<u>\$ 69</u>	<u>\$ 85</u>	<u>123 %</u>
Basic and diluted net income per Class A share	\$ 0.70	\$ 0.03	\$ 0.67	**	\$ 0.98	\$ 0.49	\$ 0.49	100 %
Basic and diluted weighted average Class A shares outstanding	158	154	4	3 %	157	142	15	11 %

** Indicates that variance as a percentage is not meaningful.

- (1) Segment Adjusted EBITDA is the measure of segment performance that is utilized by our CODM to assess performance and allocate resources among our operating segments. This measure is adjusted for certain items, including those that our CODM believes impact comparability of results across periods. See Note 14 to our Condensed Consolidated Financial Statements for additional discussion of such adjustments.

Non-GAAP Financial Measures

To supplement our financial information presented in accordance with GAAP, management uses additional measures known as “non-GAAP financial measures” in its evaluation of past performance and prospects for the future. The primary additional measure used by management is earnings before interest, taxes, depreciation and amortization (including our proportionate share of depreciation and amortization and gains and losses on significant asset sales of unconsolidated entities) and gains on sales of investments in unconsolidated entities, adjusted for certain selected items impacting comparability (“Adjusted EBITDA”).

Management believes that the presentation of such additional financial measure provides useful information to investors regarding our performance and results of operations because this measure, when used to supplement related GAAP financial measures, (i) provide additional information about our core operating performance, (ii) provide investors with the same financial analytical framework upon which management bases financial, operational, compensation and planning/budgeting decisions and (iii) present measures that investors, rating agencies and debt holders have indicated are useful in assessing us and our results of operations. This non-GAAP measure may exclude, for example, (i) charges for obligations that are expected to be settled with the issuance of equity instruments, (ii) gains or losses on derivative instruments that are related to underlying activities in another period (or the reversal of such adjustments from a prior period), the mark-to-market related to PAA’s Preferred Distribution Rate Reset Option, gains and losses on derivatives that are related to investing activities (such as the purchase of linefill) and inventory valuation adjustments, as applicable, (iii) long-term inventory costing adjustments, (iv) items that are not indicative of our core operating results and business outlook and/or (v) other items that we believe should be excluded in understanding our core operating performance. This measure may further be adjusted to include amounts related to deficiencies associated with minimum volume commitments whereby we have billed the counterparties for their deficiency obligation and such amounts are recognized as deferred revenue in “Other current liabilities” in our Condensed Consolidated Financial Statements. Such amounts are presented net of applicable amounts subsequently recognized into revenue. We have defined all such items as “selected items impacting comparability.” We do not necessarily consider all of our selected items impacting comparability to be non-recurring, infrequent or unusual, but we believe that an understanding of these selected items impacting comparability is material to the evaluation of our operating results and prospects.

Although we present selected items impacting comparability that management considers in evaluating our performance, you should also be aware that the items presented do not represent all items that affect comparability between the periods presented. Variations in our operating results are also caused by changes in volumes, prices, exchange rates, mechanical interruptions, acquisitions, expansion projects and numerous other factors as discussed, as applicable, in “Analysis of Operating Segments.”

Our definition and calculation of certain non-GAAP financial measures may not be comparable to similarly-titled measures of other companies. Adjusted EBITDA is reconciled to Net Income, the most directly comparable measure as reported in accordance with GAAP, and should be viewed in addition to, and not in lieu of, our Condensed Consolidated Financial Statements and footnotes.

The following table sets forth the reconciliation of this non-GAAP financial performance measure from Net Income (in millions):

	Three Months Ended September 30,		Variance		Nine Months Ended September 30,		Variance	
	2018	2017	\$	%	2018	2017	\$	%
Net income	\$ 676	\$ 31	\$ 645	**	\$ 1,046	\$ 607	\$ 439	72 %
Add/(Subtract):								
Interest expense, net	110	134	(24)	(18)%	327	390	(63)	(16)%
Income tax expense/(benefit)	23	(43)	66	153 %	84	85	(1)	(1)%
Depreciation and amortization	131	152	(21)	(14)%	307	403	(96)	(24)%
Depreciation and amortization of unconsolidated entities ⁽¹⁾	15	13	2	15 %	44	31	13	42 %
Gain on sale of investment in unconsolidated entities	(210)	—	(210)	N/A	(210)	—	(210)	N/A
Selected Items Impacting Comparability:								
(Gains)/losses from derivative activities net of inventory valuation adjustments ⁽²⁾	(110)	216	(326)	**	107	(86)	193	**
Long-term inventory costing adjustments ⁽³⁾	(10)	(16)	6	**	(18)	(2)	(16)	**
Deficiencies under minimum volume commitments, net ⁽⁴⁾	(4)	8	(12)	**	9	5	4	**
Equity-indexed compensation expense ⁽⁵⁾	14	7	7	**	37	18	19	**
Net (gain)/loss on foreign currency revaluation ⁽⁶⁾	(3)	(14)	11	**	5	(27)	32	**
Line 901 incident ⁽⁷⁾	—	—	—	**	—	12	(12)	**
Significant acquisition-related expenses ⁽⁸⁾	—	—	—	**	—	6	(6)	**
Selected Items Impacting Comparability - Segment Adjusted EBITDA	(113)	201	(314)	**	140	(74)	214	**
(Gains)/losses from derivative activities ⁽²⁾	2	(2)	4	**	(3)	—	(3)	**
Net (gain)/loss on foreign currency revaluation ⁽⁶⁾	1	3	(2)	**	(3)	7	(10)	**
Selected Items Impacting Comparability - Adjusted EBITDA ⁽⁹⁾	(110)	202	(312)	**	134	(67)	201	**
Adjusted EBITDA ⁽⁹⁾	\$ 635	\$ 489	\$ 146	30 %	\$ 1,732	\$ 1,449	\$ 283	20 %

** Indicates that variance as a percentage is not meaningful.

(1) Over the past several years, we have increased our participation in pipeline strategic joint ventures, which are accounted for under the equity method of accounting. We exclude our proportionate share of the depreciation and amortization expense and gains and losses on significant asset sales of such unconsolidated entities when reviewing Adjusted EBITDA, similar to our consolidated assets.

(2) We use derivative instruments for risk management purposes, and our related processes include specific identification of hedging instruments to an underlying hedged transaction. Although we identify an underlying transaction for each derivative instrument we enter into, there may not be an accounting hedge relationship between the instrument and the underlying transaction. In the course of evaluating our results of operations, we identify the earnings that were recognized during the period related to derivative instruments for which the identified underlying transaction does not occur in the current period and exclude the related gains and losses in determining Adjusted EBITDA. In addition, we exclude gains and losses on derivatives that are related to investing activities, such as the purchase of linefill. We also

exclude the impact of corresponding inventory valuation adjustments, as applicable, as well as the mark-to-market adjustment related to PAA's Preferred Distribution Rate Reset Option. See Note 11 to our Condensed Consolidated Financial Statements for a comprehensive discussion regarding our derivatives and risk management activities and PAA's Preferred Distribution Rate Reset Option.

- (3) We carry crude oil and NGL inventory that is comprised of minimum working inventory requirements in third-party assets and other working inventory that is needed for our commercial operations. We consider this inventory necessary to conduct our operations and we intend to carry this inventory for the foreseeable future. Therefore, we classify this inventory as long-term on our balance sheet and do not hedge the inventory with derivative instruments (similar to linefill in our own assets). We treat the impact of changes in the average cost of the long-term inventory (that result from fluctuations in market prices) and writedowns of such inventory that result from price declines as a selected item impacting comparability. See Note 4 to our Consolidated Financial Statements included in Part IV of our 2017 Annual Report on Form 10-K for additional inventory disclosures.
- (4) We have certain agreements that require counterparties to deliver, transport or throughput a minimum volume over an agreed upon period. Substantially all of such agreements were entered into with counterparties to economically support the return on our capital expenditure necessary to construct the related asset. Some of these agreements include make-up rights if the minimum volume is not met. We record a receivable from the counterparty in the period that services are provided or when the transaction occurs, including amounts for deficiency obligations from counterparties associated with minimum volume commitments. If a counterparty has a make-up right associated with a deficiency, we defer the revenue attributable to the counterparty's make-up right and subsequently recognize the revenue at the earlier of when the deficiency volume is delivered or shipped, when the make-up right expires or when it is determined that the counterparty's ability to utilize the make-up right is remote. We include the impact of amounts billed to counterparties for their deficiency obligation, net of applicable amounts subsequently recognized into revenue, as a selected item impacting comparability. We believe the inclusion of the contractually committed revenues associated with that period is meaningful to investors as the related asset has been constructed, is standing ready to provide the committed service and the fixed operating costs are included in the current period results.
- (5) Our total equity-indexed compensation expense includes expense associated with awards that will or may be settled in PAA common units and awards that will or may be settled in cash. The awards that will or may be settled in PAA common units are included in PAA's diluted net income per unit calculation when the applicable performance criteria have been met. We consider the compensation expense associated with these awards as a selected item impacting comparability as the dilutive impact of the outstanding awards is included in PAA's diluted net income per unit calculation, as applicable, and the majority of the awards are expected to be settled in units. The portion of compensation expense associated with awards that are certain to be settled in cash is not considered a selected item impacting comparability. See Note 16 to our Consolidated Financial Statements included in Part IV of our 2017 Annual Report on Form 10-K for a comprehensive discussion regarding our equity-indexed compensation plans.
- (6) During the periods presented, there were fluctuations in the value of CAD to USD, resulting in gains and losses that were not related to our core operating results for the period and were thus classified as a selected item impacting comparability. See Note 11 to our Condensed Consolidated Financial Statements for discussion regarding our currency exchange rate risk hedging activities.
- (7) Includes costs recognized during the period related to the Line 901 incident that occurred in May 2015, net of amounts we believe are probable of recovery from insurance. See Note 17 to our Consolidated Financial Statements included in Part IV of our 2017 Annual Report on Form 10-K for additional information regarding the Line 901 incident.
- (8) Includes acquisition-related expenses associated with the ACC Acquisition in February 2017.
- (9) Adjusted EBITDA includes Other income/(expense), net adjusted for selected items impacting comparability ("Adjusted Other income/(expense), net"). Segment Adjusted EBITDA does not include Adjusted Other income/(expense), net.

Analysis of Operating Segments

We manage our operations through three operating segments: Transportation, Facilities and Supply and Logistics. Our CODM (our Chief Executive Officer) evaluates segment performance based on a variety of measures including Segment Adjusted EBITDA, segment volumes, Segment Adjusted EBITDA per barrel and maintenance capital investment.

We define Segment Adjusted EBITDA as revenues and equity earnings in unconsolidated entities less (a) purchases and related costs, (b) field operating costs and (c) segment general and administrative expenses, plus our proportionate share of the depreciation and amortization expense and gains and losses on significant asset sales of unconsolidated entities, and further

adjusted for certain selected items including (i) the mark-to-market of derivative instruments that are related to underlying activities in another period (or the reversal of such adjustments from a prior period), gains and losses on derivatives that are related to investing activities (such as the purchase of linefill) and inventory valuation adjustments, as applicable, (ii) long-term inventory costing adjustments, (iii) charges for obligations that are expected to be settled with the issuance of equity instruments, (iv) amounts related to deficiencies associated with minimum volume commitments, net of applicable amounts subsequently recognized into revenue and (v) other items that our CODM believes are integral to understanding our core segment operating performance. See Note 14 to our Condensed Consolidated Financial Statements for a reconciliation of Segment Adjusted EBITDA to net income attributable to PAGP.

Revenues and expenses from our Canadian based subsidiaries, which use CAD as their functional currency, are translated at the prevailing average exchange rates for the month.

Transportation Segment

Our Transportation segment operations generally consist of fee-based activities associated with transporting crude oil and NGL on pipelines, gathering systems, trucks and barges. The Transportation segment generates revenue through a combination of tariffs, third-party pipeline capacity agreements and other transportation fees.

The following tables set forth our operating results from our Transportation segment:

Operating Results ⁽¹⁾ (in millions, except per barrel data)	Three Months Ended September 30,		Variance		Nine Months Ended September 30,		Variance	
	2018	2017	\$	%	2018	2017	\$	%
Revenues	\$ 498	\$ 446	\$ 52	12 %	\$ 1,427	\$ 1,260	\$ 167	13 %
Purchases and related costs	(49)	(29)	(20)	(69)%	(141)	(74)	(67)	(91)%
Field operating costs	(164)	(136)	(28)	(21)%	(469)	(436)	(33)	(8)%
Segment general and administrative expenses ⁽²⁾	(28)	(25)	(3)	(12)%	(86)	(78)	(8)	(10)%
Equity earnings in unconsolidated entities	110	80	30	38 %	281	201	80	40 %
Adjustments ⁽³⁾ :								
Depreciation and amortization of unconsolidated entities	15	13	2	15 %	44	31	13	42 %
Gains from derivative activities	—	—	—	**	(1)	—	(1)	**
Deficiencies under minimum volume commitments, net	(1)	11	(12)	**	8	2	6	**
Equity-indexed compensation expense	7	3	4	**	20	9	11	**
Line 901 incident	—	—	—	**	—	12	(12)	**
Significant acquisition-related expenses	—	—	—	**	—	6	(6)	**
Segment Adjusted EBITDA	\$ 388	\$ 363	\$ 25	7 %	\$ 1,083	\$ 933	\$ 150	16 %
Maintenance capital	\$ 41	\$ 32	\$ 9	28 %	\$ 102	\$ 89	\$ 13	15 %
Segment Adjusted EBITDA per barrel	\$ 0.70	\$ 0.74	\$ (0.04)	(5)%	\$ 0.69	\$ 0.67	\$ 0.02	3 %

Average Daily Volumes (in thousands of barrels per day) (4)	Three Months Ended September 30,		Variance		Nine Months Ended September 30,		Variance	
	2018	2017	Volumes	%	2018	2017	Volumes	%
Tariff activities volumes								
Crude oil pipelines (by region):								
Permian Basin ⁽⁵⁾	3,880	2,963	917	31 %	3,621	2,732	889	33 %
South Texas / Eagle Ford ⁽⁵⁾	451	362	89	25 %	436	341	95	28 %
Central ⁽⁵⁾	480	424	56	13 %	456	419	37	9 %
Gulf Coast	171	359	(188)	(52)%	182	362	(180)	(50)%
Rocky Mountain ⁽⁵⁾	258	426	(168)	(39)%	261	418	(157)	(38)%
Western	184	190	(6)	(3)%	180	186	(6)	(3)%
Canada	322	351	(29)	(8)%	312	359	(47)	(13)%
Crude oil pipelines	5,746	5,075	671	13 %	5,448	4,817	631	13 %
NGL pipelines	174	172	2	1 %	173	169	4	2 %
Tariff activities total volumes	5,920	5,247	673	13 %	5,621	4,986	635	13 %
Trucking volumes	95	94	1	1 %	95	102	(7)	(7)%
Transportation segment total volumes	6,015	5,341	674	13 %	5,716	5,088	628	12 %

** Indicates that variance as a percentage is not meaningful.

- (1) Revenues and costs and expenses include intersegment amounts.
- (2) Segment general and administrative expenses reflect direct costs attributable to each segment and an allocation of other expenses to the segments. The proportional allocations by segment require judgment by management and are based on the business activities that exist during each period.
- (3) Represents adjustments included in the performance measure utilized by our CODM in the evaluation of segment results. See Note 14 to our Condensed Consolidated Financial Statements for additional discussion of such adjustments.
- (4) Average daily volumes are calculated as the total volumes (attributable to our interest) for the period divided by the number of days in the period.
- (5) Region includes volumes (attributable to our interest) from pipelines owned by unconsolidated entities.

Tariffs and other fees on our pipeline systems vary by receipt point and delivery point. The segment results generated by our tariff and other fee-related activities depend on the volumes transported on the pipeline and the level of the tariff and other fees charged, as well as the fixed and variable field costs of operating the pipeline. As is common in the pipeline transportation industry, our tariffs incorporate a loss allowance factor. We recognize the allowance volumes collected at fair value.

The following is a discussion of items impacting Transportation segment operating results for the periods indicated.

Revenues, Purchases and Related Costs, Equity Earnings in Unconsolidated Entities and Volumes. The following table presents variances in revenues, purchases and related costs and equity earnings in unconsolidated entities by region for the comparative periods presented:

(in millions)	Favorable/(Unfavorable) Variance Three Months Ended September 30, 2018-2017			Favorable/(Unfavorable) Variance Nine Months Ended September 30, 2018-2017		
	Revenues	Purchases and Related Costs	Equity Earnings	Revenues	Purchases and Related Costs	Equity Earnings
Permian Basin region	\$ 64	\$ (14)	\$ 14	\$ 198	\$ (59)	\$ 37
South Texas / Eagle Ford region	1	—	—	7	—	12
Central region	(1)	—	16	(12)	—	38
Gulf Coast region	(8)	—	—	(26)	—	—
Rocky Mountain region	(13)	—	—	(30)	—	—
Other regions (including trucking and pipeline loss allowance revenue)	9	(6)	—	30	(8)	(7)
Total variance	\$ 52	\$ (20)	\$ 30	\$ 167	\$ (67)	\$ 80

- *Permian Basin region.* Total revenues, net of purchases and related costs, and equity earnings in unconsolidated entities increased by approximately \$64 million and \$176 million, respectively, for the three- and nine-month comparative periods primarily due to higher volumes from increased production and our recently completed capital expansion projects. For the three and nine months ended September 30, 2018, these increases included (i) higher volumes on our gathering systems of approximately 350,000 and 339,000 barrels per day, respectively, primarily on our Pinon and Spraberry pipelines and ACC system, (ii) higher volumes of approximately 415,000 and 381,000 barrels per day, respectively, on our intra-basin pipelines and (iii) a volume increase of approximately 152,000 and 169,000 barrels per day, respectively, on our long-haul pipelines, including our equity interest in BridgeTex.
- *South Texas / Eagle Ford region.* Revenues increased for each of the comparative periods presented due to higher receipts on certain of our gathering systems.

Equity earnings from our 50% interest in Eagle Ford Pipeline LLC was favorably impacted for each of the comparative periods by higher volumes from our Cactus pipeline. For the three-month comparative period, such favorable impact was offset by the recognition of deferred revenue in the 2017 period, for which there was no corresponding impact in the 2018 period.

- *Central region.* The decrease in revenues for each of the comparative periods was primarily due to the sale of certain of our Mid-Continent Area System assets in the fourth quarter of 2017, including the sale of a portion of our interest in our Midway pipeline for which our remaining interest is now accounted for under the equity method of accounting. However, such unfavorable results were partially offset by additional movements on our Red River pipeline in the 2018 periods.

Equity earnings increased for each of the comparative periods from (i) our 50% interest in the Diamond joint venture pipeline, which was placed in service in late 2017, and (ii) our 50% interest in Midway pipeline, which we account for under the equity method of accounting following the sale of a portion of our interest in the pipeline in the fourth quarter of 2017, as discussed above.

- *Gulf Coast Region.* The decrease in revenues for each of the comparative periods was primarily due to lower volumes on the Capline pipeline once the Diamond joint venture pipeline was placed in service in late 2017.
- *Rocky Mountain Region.* The decrease in revenues and volumes for each of the comparative periods was primarily due to the sale of certain pipelines and related assets in the fourth quarter of 2017 and the second quarter of 2018, partially offset by higher volumes on certain of our remaining pipelines.

- *Other.* The increase in other revenue for each of the comparative periods was primarily due to greater loss allowance revenue driven by higher volumes and prices in the 2018 periods. The decrease in volumes on our Canadian crude oil pipelines for each of the comparative periods was partially due to the temporary outage of a connecting carrier. Additionally, the impact on revenues from the decrease in volumes was partially offset by increased tariff rates on certain of the pipelines.

Adjustments: Deficiencies under minimum volume commitments, net. Many industry infrastructure projects developed and completed over the last several years were underpinned by long-term minimum volume commitment contracts whereby the shipper, based on an expectation of continued production growth, agreed to either: (i) ship and pay for certain stated volumes or (ii) pay the agreed upon price for a minimum contract quantity. During the nine-month 2018 period and the 2017 periods presented in the table above, collections for deficiencies under minimum volume commitments that resulted in deferred revenues and an increase to Segment Adjusted EBITDA more than offset the impact during the periods from (i) shippers that utilized credits associated with previous deficiencies or (ii) credits that expired resulting in the recognition of previously deferred revenue. For the three-month 2018 period, shippers utilized credits associated with previous deficiencies, or such credits expired, offsetting collections for deficiencies and resulting in a net decrease to Segment Adjusted EBITDA.

Field Operating Costs. Field operating costs for the three and nine months ended September 30, 2018 compared to the three and nine months ended September 30, 2017 were impacted by an increase in power related costs resulting from higher volumes, and increases in compensation costs. Such increases were partially offset in the three- and nine-month comparative periods by the sale of assets in the Rocky Mountain region in the fourth quarter of 2017 and the second quarter of 2018. Further, for the nine-month comparative period, the increases were offset by the impact of an increase of estimated costs recognized in the second quarter of 2017 associated with the Line 901 incident (which impact our field operating costs but are excluded from Segment Adjusted EBITDA and thus are reflected as an “Adjustment” in the table above).

Segment General and Administrative Expenses. The increase in segment general and administrative expenses for the three and nine months ended September 30, 2018 compared to the three and nine months ended September 30, 2017 was primarily driven by an increase in equity-indexed compensation expense due to the impact of an increase in PAA’s unit price for the 2018 periods compared to a decrease in PAA’s unit price for the 2017 periods. A portion of equity-indexed compensation expense was associated with awards that will or may be settled in PAA common units (which impact our general and administrative expenses but are excluded from Segment Adjusted EBITDA and thus are reflected as an “Adjustment” in the table above).

The increase for the nine-month comparative period was partially offset by acquisition costs incurred in the 2017 period related to the ACC gathering system acquisition (which impact our segment general and administrative expenses but are excluded from Segment Adjusted EBITDA and thus are reflected as an “Adjustment” in the table above).

Maintenance Capital. Maintenance capital consists of capital expenditures for the replacement and/or refurbishment of partially or fully depreciated assets in order to maintain the operating and/or earnings capacity of our existing assets. The increase in maintenance capital for the three and nine months ended September 30, 2018 compared to the same periods in 2017 was primarily due to increased investment in our integrity management program and an operational tank replacement project.

Facilities Segment

Our Facilities segment operations generally consist of fee-based activities associated with providing storage, terminalling and throughput services primarily for crude oil, NGL and natural gas, as well as NGL fractionation and isomerization services and natural gas and condensate processing services. The Facilities segment generates revenue through a combination of month-to-month and multi-year agreements and processing arrangements.

The following tables set forth our operating results from our Facilities segment:

Operating Results (1) (in millions, except per barrel data)	Three Months Ended September 30,		Variance		Nine Months Ended September 30,		Variance	
	2018	2017	\$	%	2018	2017	\$	%
Revenues	\$ 289	\$ 291	\$ (2)	(1)%	\$ 866	\$ 873	\$ (7)	(1)%
Purchases and related costs	(3)	(3)	—	—%	(12)	(19)	7	37%
Field operating costs	(95)	(89)	(6)	(7)%	(271)	(258)	(13)	(5)%
Segment general and administrative expenses (2)	(18)	(18)	—	—%	(59)	(55)	(4)	(7)%
Adjustments (3):								
(Gains)/losses from derivative activities	—	2	(2)	**	(2)	3	(5)	**
Deficiencies under minimum volume commitments, net	(3)	(3)	—	**	1	3	(2)	**
Equity-indexed compensation expense	3	2	1	**	7	3	4	**
Segment Adjusted EBITDA	\$ 173	\$ 182	\$ (9)	(5)%	\$ 530	\$ 550	\$ (20)	(4)%
Maintenance capital	\$ 33	\$ 28	\$ 5	18%	\$ 74	\$ 94	\$ (20)	(21)%
Segment Adjusted EBITDA per barrel	\$ 0.47	\$ 0.48	\$ (0.01)	(2)%	\$ 0.48	\$ 0.47	\$ 0.01	2%
Volumes (4)	Three Months Ended September 30,		Variance		Nine Months Ended September 30,		Variance	
	2018	2017	Volumes	%	2018	2017	Volumes	%
Liquids storage (average monthly capacity in millions of barrels)	109	112	(3)	(3)%	109	112	(3)	(3)%
Natural gas storage (average monthly working capacity in billions of cubic feet) (5)	65	67	(2)	(3)%	66	87	(21)	(24)%
NGL fractionation (average volumes in thousands of barrels per day)	115	131	(16)	(12)%	128	125	3	2%
Facilities segment total volumes (average monthly volumes in millions of barrels) (6)	123	127	(4)	(3)%	124	130	(6)	(5)%

** Indicates that variance as a percentage is not meaningful.

(1) Revenues and costs and expenses include intersegment amounts.

(2) Segment general and administrative expenses reflect direct costs attributable to each segment and an allocation of other expenses to the segments. The proportional allocations by segment require judgment by management and are based on the business activities that exist during each period.

(3) Represents adjustments included in the performance measure utilized by our CODM in the evaluation of segment results. See Note 14 to our Condensed Consolidated Financial Statements for additional discussion of such adjustments.

(4) Average monthly volumes are calculated as total volumes for the period divided by the number of months in the period.

(5) The decrease in average monthly working capacity of natural gas storage facilities was driven by adjustments for (i) the sale of our Bluewater natural gas storage facility in June 2017, (ii) changes in base gas and (iii) the net capacity change between capacity additions from fill and dewater operations and capacity losses from salt creep.

(6) Facilities segment total volumes is calculated as the sum of: (i) liquids storage capacity; (ii) natural gas storage working capacity divided by 6 to account for the 6:1 mcf of natural gas to crude Btu equivalent ratio and further

divided by 1,000 to convert to monthly volumes in millions; and (iii) NGL fractionation volumes multiplied by the number of days in the period and divided by the number of months in the period.

The following is a discussion of items impacting Facilities segment operating results for the periods indicated.

Revenues, Purchases and Related Costs and Volumes. Variances in revenues, purchases and related costs and average monthly volumes for the comparative periods were driven by:

- *NGL Operations.* Revenues decreased by \$13 million and less than \$1 million for the three and nine months ended September 30, 2018, respectively, compared to the same periods in 2017. The three- and nine-month comparative periods were impacted by the sale of a natural gas processing facility in the second quarter of 2018 and decreases in revenues at certain of our storage and fractionation facilities. The three-month comparative period also reflects an unfavorable foreign exchange impact of approximately \$5 million. These unfavorable variances were substantially offset for the nine-month comparative period due to (i) increased volumes and fees associated with placing an additional 1.6 million barrels of NGL storage capacity into service in the second half of 2017 at our Fort Saskatchewan facility, (ii) higher volumetric gains at certain facilities in the 2018 period and (iii) a net favorable foreign exchange impact of approximately \$5 million.
- *Crude Oil Storage.* Revenues decreased by \$2 million and \$14 million for the three and nine months ended September 30, 2018, respectively, compared to the same periods in 2017 primarily due to the sale of certain of our Bay Area, California terminal assets in December 2017. These lower results were partially offset in each of the comparative periods by higher revenues from increased activity at our Cushing and St. James terminals.
- *Rail Terminals.* Revenues increased by \$8 million and \$18 million for the three and nine months ended September 30, 2018, respectively, over the same periods in 2017 primarily due to higher activity at certain of our rail terminals resulting from more favorable market conditions.
- *Natural Gas Storage.* Revenues, net of purchases and related costs, increased by \$3 million for the three-month comparative period and decreased by \$5 million for the nine-month comparative period. The decrease for the nine-month comparative period was primarily due to (i) the June 2017 sale of our Bluewater natural gas storage facility and (ii) the absence of a one-time fee recognized during the first quarter of 2017 related to the early termination of a storage contract at our Pine Prairie facility. These unfavorable impacts were partially offset for the nine-month comparative period and fully offset for the three-month comparative period by the favorable impact of expiring contracts replaced at higher rates and more favorable market conditions for hub services at certain of our natural gas storage facilities.

Field Operating Costs. The increase in field operating costs for the three and nine months ended September 30, 2018 compared to the three and nine months ended September 30, 2017 was primarily due to an increase in personnel costs, including higher costs at our rail terminals as a result of increased activity, partially offset by lower costs due to sales of assets.

Segment General and Administrative Expenses. The increase in segment general and administrative expenses for the nine months ended September 30, 2018 compared to the nine months ended September 30, 2017 was primarily driven by an increase in equity-indexed compensation expense due to the impact of an increase in PAA's unit price for the 2018 period compared to a decrease in PAA's unit price for the 2017 period.

Maintenance Capital. For the three months ended September 30, 2018 as compared to the three months ended September 30, 2017, maintenance capital spending increased primarily due to costs at our NGL processing facilities located in Western Canada. These increases were partially offset for the three month comparative period and fully offset for the nine month comparative period by the impact of higher expenditures related to our integrity management program in 2017 compared to 2018, primarily on assets at our Southern California terminals. Total maintenance costs related to our integrity management program at these terminals decreased by approximately \$10 million and \$41 million for the three and nine months ended September 30, 2018, respectively, compared to the same periods in 2017. We expect to continue to see significant reductions to our maintenance capital costs compared to 2017 at these terminals going forward as we complete a number of maintenance projects in this area.

Supply and Logistics Segment

Revenues from our Supply and Logistics segment activities reflect the sale of gathered and bulk-purchased crude oil, as well as sales of NGL volumes. Generally, our segment results are impacted by (i) increases or decreases in our Supply and Logistics segment volumes (which consist of lease gathering crude oil purchases volumes and NGL sales volumes), (ii) the overall strength, weakness and volatility of market conditions and the allocation of our assets among our various risk management strategies and (iii) the effects of competition on our lease gathering and NGL margins. In addition, the execution of our risk management strategies in conjunction with our assets can provide upside in certain markets. Our crude oil and NGL supply, logistics and distribution operations are not directly affected by the absolute level of prices, but are affected by overall levels of supply and demand for crude oil and NGL, market structure and relative fluctuations in market-related indices and regional differentials.

The following tables set forth our operating results from our Supply and Logistics segment:

Operating Results (1) (in millions, except per barrel data)	Three Months Ended September 30,		Variance		Nine Months Ended September 30,		Variance	
	2018	2017	\$	%	2018	2017	\$	%
Revenues	\$ 8,483	\$ 5,574	\$ 2,909	52 %	\$ 24,376	\$ 17,757	\$ 6,619	37 %
Purchases and related costs	(8,191)	(5,729)	(2,462)	(43)%	(24,076)	(17,407)	(6,669)	(38)%
Field operating costs	(70)	(62)	(8)	(13)%	(200)	(193)	(7)	(4)%
Segment general and administrative expenses (2)	(28)	(25)	(3)	(12)%	(87)	(77)	(10)	(13)%
Adjustments (3):								
(Gains)/losses from derivative activities net of inventory valuation adjustments	(110)	214	(324)	**	110	(89)	199	**
Long-term inventory costing adjustments	(10)	(16)	6	**	(18)	(2)	(16)	**
Equity-indexed compensation expense	4	2	2	**	10	6	4	**
Net (gain)/loss on foreign currency revaluation	(3)	(14)	11	**	5	(27)	32	**
Segment Adjusted EBITDA	\$ 75	\$ (56)	\$ 131	234 %	\$ 120	\$ (32)	\$ 152	475 %
Maintenance capital	\$ 4	\$ 3	\$ 1	33 %	\$ 10	\$ 11	\$ (1)	(9)%
Segment Adjusted EBITDA per barrel	\$ 0.66	\$ (0.54)	\$ 1.20	222 %	\$ 0.35	\$ (0.10)	\$ 0.45	450 %
Average Daily Volumes (4)								
(in thousands of barrels per day)			Volumes	%			Volumes	%
Crude oil lease gathering purchases	1,042	929	113	12 %	1,034	929	105	11 %
NGL sales	195	202	(7)	(3)%	243	254	(11)	(4)%
Supply and Logistics segment total volumes	1,237	1,131	106	9 %	1,277	1,183	94	8 %

** Indicates that variance as a percentage is not meaningful.

(1) Revenues and costs include intersegment amounts.

(2) Segment general and administrative expenses reflect direct costs attributable to each segment and an allocation of other expenses to the segments. The proportional allocations by segment require judgment by management and are based on the business activities that exist during each period.

(3) Represents adjustments included in the performance measure utilized by our CODM in the evaluation of segment results. See Note 14 to our Condensed Consolidated Financial Statements for additional discussion of such adjustments.

(4) Average daily volumes are calculated as the total volumes for the period divided by the number of days in the period.

The following table presents the range of the NYMEX WTI benchmark price of crude oil (in dollars per barrel):

	NYMEX WTI Crude Oil Price	
	Low	High
Three months ended September 30, 2018	\$ 65	\$ 74
Three months ended September 30, 2017	\$ 44	\$ 52
Nine months ended September 30, 2018	\$ 59	\$ 74
Nine months ended September 30, 2017	\$ 43	\$ 54

Because the commodities that we buy and sell are generally indexed to the same pricing indices for both sales and purchases, revenues and costs related to purchases will fluctuate with market prices. However, the margins related to those sales and purchases will not necessarily have a corresponding increase or decrease. The absolute amount of our revenues and purchases increased for the three and nine months ended September 30, 2018 compared to the same periods in 2017 primarily due to higher crude oil prices. Additionally, revenues were impacted by net gains and losses from certain derivative activities during the periods.

Our NGL operations are sensitive to weather-related demand, particularly during the approximate five-month peak heating season of November through March, and temperature differences from period-to-period may have a significant effect on NGL demand and thus our financial performance.

The following is a discussion of items impacting Supply and Logistics segment operating results for the periods indicated.

Segment Adjusted EBITDA and Volumes. Our Supply and Logistics Segment Adjusted EBITDA increased by \$131 million and \$152 million for the three and nine months ended September 30, 2018, respectively, compared to the three and nine months ended September 30, 2017. The following summarizes the significant items impacting the comparative periods:

- *Crude Oil Operations.* Net revenues from our crude oil supply and logistics operations increased for the comparative three- and nine-month periods presented primarily due to favorable grade differentials, primarily in the Permian Basin and Western Canada, as well as higher lease gathering margins and volumes. For the nine-month comparative period, such favorable impacts more than offset the benefit to the 2017 period of the contango market conditions.
- *NGL Operations.* Net revenues from our NGL operations increased for the three and nine months ended September 30, 2018 compared to the same periods in 2017. The three- and nine-month comparative periods were favorably impacted by an audit recovery in 2018 related to a profit-sharing arrangement. The nine-month comparative period was also favorably impacted by (i) lower supply costs at our straddle plants relative to NGL values, (ii) favorable impacts from a wider isobutane/normal butane differential and (iii) modifications made to our contracting strategies in the 2017-2018 heating season.
- *Impact from Certain Derivative Activities Net of Inventory Valuation Adjustments.* The impact from certain derivative activities on our net revenues includes mark-to-market and other gains and losses resulting from certain derivative instruments that are related to underlying activities in another period (or the reversal of mark-to-market gains and losses from a prior period) and inventory valuation adjustments, as applicable. See Note 11 to our Condensed Consolidated Financial Statements for a comprehensive discussion regarding our derivatives and risk management activities. These gains and losses impact our net revenues but are excluded from Segment Adjusted EBITDA and thus are reflected as an "Adjustment" in the table above.
- *Long-Term Inventory Costing Adjustments.* Our net revenues are impacted by changes in the weighted average cost of our crude oil and NGL inventory pools that result from price movements during the periods. These costing adjustments related to long-term inventory necessary to meet our minimum inventory requirements in third-party assets and other working inventory that was needed for our commercial operations. We consider this inventory necessary to conduct our operations and we intend to carry this inventory for the foreseeable future. These costing adjustments impact our net revenues but are excluded from Segment Adjusted EBITDA and thus are reflected as an "Adjustment" in the table above.

- *Foreign Exchange Impacts.* Our net revenues are impacted by fluctuations in the value of CAD to USD, resulting in foreign exchange gains and losses on U.S. denominated net assets within our Canadian operations. These gains and losses impact our net revenues but are excluded from Segment Adjusted EBITDA and thus are reflected as an “Adjustment” in the table above.
- *Field Operating Costs.* The increase in field operating costs for the three and nine months ended September 30, 2018 compared to the three and nine months ended September 30, 2017 was primarily driven by an increase in third party trucking utilization and higher fuel costs due to longer hauls and increased volumes.
- *Segment General and Administrative Expenses.* The increase in segment general and administrative expenses for the three and nine months ended September 30, 2018 compared to the three and nine months ended September 30, 2017 was primarily driven by (i) an increase in equity-indexed compensation expense due to the impact of an increase in PAA’s unit price for the 2018 periods compared to a decrease in PAA’s unit price for the 2017 periods and (ii) cost increases across various categories.

Other Income and Expenses

Depreciation and Amortization

Depreciation and amortization expense decreased for the three and nine months ended September 30, 2018 compared to the three and nine months ended September 30, 2017 primarily due to the recognition of net losses of approximately \$2 million for the three months ended September 30, 2018 and net gains of approximately \$79 million for the nine months ended September 30, 2018, compared to net losses of approximately \$15 million for both the three and nine months ended September 30, 2017 associated with sales of assets during the periods.

Gain on Sale of Investment in Unconsolidated Entities

During the third quarter of 2018, we sold a 30% interest in BridgeTex for proceeds of \$868 million, resulting in a gain of \$210 million. We retained a 20% interest in BridgeTex.

Interest Expense

The decrease in interest expense for the three and nine months ended September 30, 2018 compared to the three and nine months ended September 30, 2017 was primarily due to (i) a lower weighted average debt balance during the 2018 periods, largely resulting from the repayment of an aggregate of \$950 million of PAA senior notes in December 2017, and (ii) a net favorable impact of \$9 million and \$13 million for the three and nine month periods, respectively, related to losses on interest rate swaps recognized in the 2017 periods compared to gains recognized in the 2018 periods.

Other Income/(Expense), Net

The following table summarizes the components impacting Other income/(expense), net (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Gain/(loss) related to mark-to-market adjustment of the Preferred Distribution Rate Reset Option ⁽¹⁾	\$ (2)	\$ 2	\$ 3	\$ —
Other	(1)	(3)	5	(6)
	\$ (3)	\$ (1)	\$ 8	\$ (6)

⁽¹⁾ See Note 11 to our Condensed Consolidated Financial Statements for additional information.

Income Tax Expense

The income tax expense for the three months ended September 30, 2018 compared to the income tax benefit for the three months ended September 30, 2017 was primarily due to (i) lower year-over-year losses as impacted by fluctuations in derivative mark-to-market valuations in our Canadian operations and (ii) higher deferred tax expense as a result of higher income attributable to PAGP in 2018, partially offset by the favorable impact on deferred tax expense of a decrease in our effective tax rates as a result of the enactment of the Tax Cuts and Jobs Act in the fourth quarter of 2017.

Income tax expense decreased for the nine months ended September 30, 2018 compared to the nine months ended September 30, 2017, primarily due to lower deferred tax expense due to a decrease in our effective tax rates as a result of the enactment of the Tax Cuts and Jobs Act in the fourth quarter of 2017, which more than offset the increase in expense associated with (i) higher income attributable to PAGP in 2018 and (ii) higher year-over-year income as impacted by fluctuations in derivative mark-to-market valuations in our Canadian operations.

Liquidity and Capital Resources

General

On a consolidated basis, our primary sources of liquidity are (i) cash flow from operating activities, (ii) borrowings under PAA's credit facilities or the PAA commercial paper program and (iii) funds received from sales of equity and debt securities. In addition, we may supplement these sources of liquidity with proceeds from our divestiture program, as further discussed below in the section entitled "—Capital Expenditures and Divestitures." Our primary cash requirements include, but are not limited to, (i) ordinary course of business uses, such as the payment of amounts related to the purchase of crude oil, NGL and other products, other expenses and interest payments on outstanding debt, (ii) expansion and maintenance activities, (iii) acquisitions of assets or businesses, (iv) repayment of principal on long-term debt and (v) distributions to our Class A shareholders and noncontrolling interests. We generally expect to fund our short-term cash requirements through cash flow generated from operating activities and/or borrowings under the PAA commercial paper program or PAA's credit facilities. In addition, we generally expect to fund our long-term needs, such as those resulting from expansion activities or acquisitions and refinancing long-term debt, through a variety of sources (either separately or in combination), which may include the sources mentioned above as funding for short-term needs and/or the issuance of additional equity or debt securities and the sale of assets.

As of September 30, 2018, although we had a working capital deficit of \$527 million, we had approximately \$2.5 billion of liquidity available to meet our ongoing operating, investing and financing needs, subject to continued covenant compliance, as noted below (in millions):

	As of September 30, 2018
Availability under PAA senior unsecured revolving credit facility ^{(1) (2)}	\$ 1,441
Availability under PAA senior secured hedged inventory facility ^{(1) (2)}	1,078
Amounts outstanding under PAA commercial paper program	(60)
Subtotal	2,459
Cash and cash equivalents	33
Total	\$ 2,492

⁽¹⁾ Represents availability prior to giving effect to amounts outstanding under the PAA commercial paper program, which reduce available capacity under the facilities.

⁽²⁾ Available capacity under the PAA senior unsecured revolving credit facility and the PAA senior secured hedged inventory facility was reduced by outstanding letters of credit of \$159 million and \$22 million, respectively.

We believe that we have, and will continue to have, the ability to access the PAA commercial paper program and credit facilities, which we use to meet our short-term cash needs. We believe that our financial position remains strong and we have sufficient liquidity; however, extended disruptions in the financial markets and/or energy price volatility that adversely affect our business may have a materially adverse effect on our financial condition, results of operations or cash flows. In addition, usage of the PAA credit facilities, which provide the financial backstop for the PAA commercial paper program, is subject to ongoing compliance with covenants. As of September 30, 2018, PAA was in compliance with all such covenants. Also, see

Item 1A. “Risk Factors” of our 2017 Annual Report on Form 10-K for further discussion regarding such risks that may impact our liquidity and capital resources.

Cash Flow from Operating Activities

For a comprehensive discussion of the primary drivers of cash flow from operating activities, including the impact of varying market conditions and the timing of settlement of our derivatives, see Item 7. “Liquidity and Capital Resources—Cash Flow from Operating Activities” included in our 2017 Annual Report on Form 10-K.

Net cash provided by operating activities for the first nine months of 2018 and 2017 was \$1.292 billion and \$1.915 billion, respectively, and primarily resulted from earnings from our operations. Additionally, as discussed further below, changes during these periods in our inventory levels and associated margin balances required as part of our hedging activities impacted our cash flow from operating activities.

During the nine months ended September 30, 2018, we increased the volume of crude oil and NGL inventory that we held, which was funded by proceeds from asset sales and short-term debt. The cash outflows associated with these inventory purchases resulted in a decrease to our cash provided by operating activities. However, this decrease was partially offset by approximately \$300 million of cash received for transactions for which the revenue has been deferred pending the completion of future performance obligations. See Note 3 to our Condensed Consolidated Financial Statements for additional information.

During the nine months ended September 30, 2017, we decreased both the volume of crude oil inventory that we held and the margin balances required as part of our hedging activities, both of which had been funded by short-term debt. The cash inflows associated with these items resulted in a favorable impact on our cash provided by operating activities. However, the favorable effects from such activities were partially offset by higher weighted average prices and volumes for NGL inventory that was purchased and stored at the end of the 2017 period in anticipation of the 2017-2018 heating season.

Capital Expenditures and Divestitures

In addition to our operating needs discussed above, on a consolidated basis, we also use cash for our acquisition activities and expansion capital projects. Historically, we have financed these expenditures primarily with cash generated by operating activities and the financing activities discussed in “—Equity and Debt Financing Activities” below. In the near term, we also intend to use proceeds from our divestiture program, as discussed further below. We have made and will continue to make capital expenditures for acquisitions, expansion capital projects and maintenance activities.

Capital Projects. We invested approximately \$1.37 billion in midstream infrastructure during the nine months ended September 30, 2018, and we expect to invest approximately \$1.95 billion during the full year ended December 31, 2018. See “—Acquisitions and Capital Projects” for detail of our projected capital expenditures for the year ending December 31, 2018. We expect to fund our 2018 capital program with retained cash flow and proceeds from assets sold as part of our divestiture program, as discussed further below.

Divestitures. In 2016, we initiated a program to evaluate potential sales of non-core assets and/or sales of partial interests in assets to strategic joint venture partners to optimize our asset portfolio and strengthen our balance sheet and leverage metrics. As of December 31, 2017, we had completed asset sales totaling approximately \$1.7 billion, of which approximately \$0.6 billion closed in 2016 (net of amounts paid for the remaining interest in a pipeline that was subsequently sold) and approximately \$1.1 billion closed in 2017.

As part of our funding plans for our 2018 expansion capital program, we set a target to raise \$700 million through divestitures in 2018. We have exceeded this target, receiving proceeds of approximately \$1.3 billion during the first nine months of 2018, which included proceeds from the sale of a portion of our interest in BridgeTex in the third quarter of 2018. Excess proceeds above our targeted amounts were used to reduce debt and fund incremental expansion opportunities. We continue to advance efforts with respect to a number of additional transactions.

We typically do not announce a transaction until after we have executed a definitive agreement. However, in certain cases in order to protect our business interests or for other reasons, we may defer public announcement of a transaction until a later date. Past experience has demonstrated that discussions and negotiations regarding a potential transaction can advance or terminate in a short period of time. Moreover, the closing of any transaction for which we have entered into a definitive agreement may be subject to customary and other closing conditions, which may not ultimately be satisfied or waived. Accordingly, we can give no assurance that our current divestiture efforts will be successfully completed. Also, see Item 1A.

“Risk Factors—Risks Related to PAA’s Business” of our 2017 Annual Report on Form 10-K for further discussion regarding risks related to our acquisitions and divestitures.

Equity and Debt Financing Activities

On a consolidated basis, our financing activities primarily relate to funding expansion capital projects, acquisitions and refinancing of debt maturities, as well as short-term working capital (including borrowings for NYMEX and ICE margin deposits) and hedged inventory borrowings related to our NGL business and contango market activities. Our financing activities have primarily consisted of equity offerings, PAA senior notes offerings and borrowings and repayments under the credit facilities or the PAA commercial paper program and other debt agreements, as well as payment of distributions to our Class A shareholders and noncontrolling interests.

PAGP Registration Statements. We have filed with the SEC a shelf registration statement that, subject to effectiveness at the time of use, allows us to issue up to an aggregate of \$1.0 billion of equity securities (the “PAGP Traditional Shelf”). All issuances of equity securities associated with our continuous offering program have been issued pursuant to the PAGP Traditional Shelf. At September 30, 2018, we had approximately \$939 million of unsold securities available under the PAGP Traditional Shelf. We also have access to a shelf registration statement (the “PAGP WKSIF Shelf”), which provides us with the ability to offer and sell an unlimited amount of equity securities, subject to market conditions and capital needs. We did not conduct any offerings under the PAGP Traditional Shelf or the PAGP WKSIF Shelf during the nine months ended September 30, 2018.

PAA Registration Statements. PAA periodically accesses the capital markets for both equity and debt financing. PAA has filed with the SEC a universal shelf registration statement that, subject to effectiveness at the time of use, allows PAA to issue up to an aggregate of \$1.1 billion of debt or equity securities (the “PAA Traditional Shelf”). At September 30, 2018, PAA had approximately \$1.1 billion of unsold securities available under the PAA Traditional Shelf. PAA also has access to a universal shelf registration statement (the “PAA WKSIF Shelf”), which provides it with the ability to offer and sell an unlimited amount of debt and equity securities, subject to market conditions and capital needs. PAA did not conduct any offerings under the PAA Traditional Shelf or the PAA WKSIF Shelf during the nine months ended September 30, 2018.

Credit Agreements, Commercial Paper Program and Indentures. The credit agreements for the PAA revolving credit facilities (which impact PAA’s ability to access the PAA commercial paper program because they provide the financial backstop that supports PAA’s short-term credit ratings) and the PAA term loans and the indentures governing PAA’s senior notes contain cross-default provisions. A default under the credit agreements or indentures would permit the lenders to accelerate the maturity of the outstanding debt. As long as PAA is in compliance with the provisions in the credit agreements, its ability to make distributions of available cash is not restricted. As of September 30, 2018, PAA was in compliance with the covenants contained in the credit agreements and indentures.

In August 2018, PAA entered into an agreement for two \$100 million Go Zone term loans from the remarketing of our GO Bonds. The GO Zone term loans accrue interest in accordance with the interest payable on the related GO Bonds as provided in the GO Bonds Indenture pursuant to which such GO Bonds are issued and governed. The purchasers of the two GO Zone term loans have the right to put, at par, the GO Zone term loans in July 2023. The GO Bonds mature by their terms in May 2032 and August 2035, respectively. See Note 9 to our Condensed Consolidated Financial Statements for additional information.

In August 2018, PAA extended the maturity dates of its senior unsecured revolving credit facility and senior secured hedged inventory facility by one year to August 2023 and August 2021, respectively, for each extending lender. The PAA 364-day senior unsecured revolving credit facility, which had a borrowing capacity of \$1.0 billion, matured in August 2018.

During the nine months ended September 30, 2018, we had net repayments under PAA’s credit agreements and the PAA commercial paper program of \$542 million. The net repayments resulted primarily from cash flow from operating activities and proceeds from asset sales, partially offset by borrowings during the period related to funding needs for inventory purchases and related margin activities.

During the nine months ended September 30, 2017, we had net repayments on PAA’s credit facilities and the PAA commercial paper program of \$108 million. The net repayments resulted primarily from cash flow from operating activities and cash received from our equity activities, which offset borrowings during the period related to funding needs for (i) acquisition and capital investments, (ii) repayment of PAA’s \$400 million, 6.13% senior notes in January 2017 and (iii) other general partnership purposes.

Distributions to Our Class A Shareholders

Distributions to our Class A shareholders. We distribute all of our available cash within 55 days following the end of each quarter to Class A shareholders of record. Available cash is generally defined as all of our cash and cash equivalents on hand at the end of each quarter less reserves established in the discretion of our general partner for future requirements. On November 14, 2018, we will pay a quarterly distribution of \$0.30 per Class A share (\$1.20 per Class A share on an annualized basis), which is unchanged from our prior four quarterly distributions. See Note 10 to our Condensed Consolidated Financial Statements for details of distributions paid during or pertaining to the first nine months of 2018. Also, see Item 5. “Market for Registrant’s Shares, Related Shareholder Matters and Issuer Purchases of Equity Securities—Cash Distribution Policy” included in our 2017 Annual Report on Form 10-K for additional discussion regarding distributions.

Distributions to Noncontrolling Interests

Distributions to noncontrolling interests represent amounts paid on interests in consolidated entities that are not owned by us. As of September 30, 2018, noncontrolling interests in our subsidiaries consisted of (i) limited partner interests in PAA including a 65% interest in PAA’s common units and PAA’s Series A preferred units combined and 100% of PAA’s Series B preferred units and (ii) an approximate 43% limited partner interest in AAP.

Distributions to PAA’s Series A preferred unitholders. On November 14, 2018 PAA will pay a cash distribution of \$37 million (\$0.525 per unit) on its Series A preferred units outstanding as of October 31, 2018, the record date for such distribution for the period from July 1, 2018 through September 30, 2018. See Note 10 to our Condensed Consolidated Financial Statements for details of distributions made during or pertaining to the first nine months of 2018.

Distributions to PAA’s Series B preferred unitholders. Distributions on PAA’s Series B preferred units are payable semiannually in arrears on the 15th day of May and November. On November 15, 2018, PAA will pay the semi-annual cash distribution of \$24.5 million on its Series B preferred units to holders of record at the close of business on November 1, 2018 for the period from May 15, 2018 to November 14, 2018. See Note 10 to our Condensed Consolidated Financial Statements for details of distributions made during the first nine months of 2018.

Distributions to PAA’s common unitholders. On November 14, 2018, PAA will pay a quarterly distribution of \$0.30 per common unit (\$1.20 per common unit on an annualized basis), which is unchanged from its prior four quarterly distributions, on its common units outstanding as of October 31, 2018, the record date for such distribution for the period from July 1, 2018 through September 30, 2018. See Note 10 to our Condensed Consolidated Financial Statements for details of distributions paid during or pertaining to the first nine months of 2018.

We believe that we have sufficient liquid assets, cash flow from operating activities and borrowing capacity under the credit agreements to meet our financial commitments, debt service obligations, contingencies and anticipated capital expenditures. We are, however, subject to business and operational risks that could adversely affect our cash flow. A prolonged material decrease in our cash flows would likely produce an adverse effect on our borrowing capacity.

Contingencies

For a discussion of contingencies that may impact us, see Note 13 to our Condensed Consolidated Financial Statements.

Commitments

Contractual Obligations. In the ordinary course of doing business, we purchase crude oil and NGL from third parties under contracts, the majority of which range in term from thirty-day evergreen to five years, with a limited number of contracts with remaining terms extending up to ten years. We establish a margin for these purchases by entering into various types of physical and financial sale and exchange transactions through which we seek to maintain a position that is substantially balanced between purchases on the one hand and sales and future delivery obligations on the other. The table below includes purchase obligations related to these activities. Where applicable, the amounts presented represent the net obligations associated with our counterparties (including giving effect to netting buy/sell contracts and those subject to a net settlement arrangement). We do not expect to use a significant amount of internal capital to meet these obligations, as the obligations will be funded by corresponding sales to entities that we deem creditworthy or who have provided credit support we consider adequate. The following table includes our best estimate of the amount and timing of these payments as well as other amounts due under the specified contractual obligations as of September 30, 2018 (in millions):

	Remainder of 2018	2019	2020	2021	2022	2023 and Thereafter	Total
Long-term debt and related interest payments ⁽¹⁾	\$ 105	\$ 918	\$ 878	\$ 948	\$ 1,079	\$ 10,190	\$ 14,118
Leases, rights-of-way easements and other ⁽²⁾	56	158	130	110	93	366	913
Other obligations ⁽³⁾	458	513	207	174	128	438	1,918
Subtotal	619	1,589	1,215	1,232	1,300	10,994	16,949
Crude oil, NGL and other purchases ⁽⁴⁾	3,459	6,596	5,024	4,618	3,984	13,032	36,713
Total	\$ 4,078	\$ 8,185	\$ 6,239	\$ 5,850	\$ 5,284	\$ 24,026	\$ 53,662

⁽¹⁾ Includes debt service payments, interest payments due on PAA's senior notes and the commitment fee on assumed available capacity under the PAA credit facilities, as well as long-term borrowings under the PAA credit agreements and the PAA commercial paper program, if any. Although there may be short-term borrowings under the PAA credit agreements and the PAA commercial paper program, we historically repay and borrow at varying amounts. As such, we have included only the maximum commitment fee (as if no short-term borrowings were outstanding on the PAA credit facilities or the PAA commercial paper program) in the amounts above. For additional information regarding PAA's debt obligations, see Note 9 to our Condensed Consolidated Financial Statements.

⁽²⁾ Leases are primarily for (i) railcars, (ii) land and surface rentals, (iii) office buildings, (iv) pipeline assets and (v) vehicles and trailers. Includes operating and capital leases as defined by FASB guidance, as well as obligations for rights-of-way easements.

⁽³⁾ Includes (i) other long-term liabilities, (ii) storage, processing and transportation agreements and (iii) non-cancelable commitments related to our capital expansion projects, including projected contributions for our share of the capital spending of our equity method investments. The transportation agreements include approximately \$785 million associated with an agreement to transport crude oil at posted tariff rates on a pipeline that is owned by an equity method investee, in which we own a 50% interest. Our commitment to transport is supported by crude oil buy/sell agreements with third parties (including Oxy) with commensurate quantities.

⁽⁴⁾ Amounts are primarily based on estimated volumes and market prices based on average activity during September 2018. The actual physical volume purchased and actual settlement prices will vary from the assumptions used in the table. Uncertainties involved in these estimates include levels of production at the wellhead, weather conditions, changes in market prices and other conditions beyond our control.

Letters of Credit. In connection with supply and logistics activities, we provide certain suppliers with irrevocable standby letters of credit to secure our obligation for the purchase and transportation of crude oil, NGL and natural gas. Additionally, we issue letters of credit to support insurance programs, derivative transactions including hedging related margin obligations and construction activities. At September 30, 2018 and December 31, 2017, we had outstanding letters of credit of approximately \$181 million and \$166 million, respectively.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements as defined by Item 303 of Regulation S-K.

Recent Accounting Pronouncements

See Note 2 to our Condensed Consolidated Financial Statements.

Critical Accounting Policies and Estimates

For a discussion regarding our critical accounting policies and estimates, see "Critical Accounting Policies and Estimates" under Item 7 of our 2017 Annual Report on Form 10-K.

Other Items

In March 2018, the Federal Energy Regulatory Commission ("FERC") issued a revised policy statement (subsequently modified in a final rule issued in July 2018) in which it held that it will no longer permit an income tax allowance to be included in cost-of-service rates for interstate pipelines structured as master limited partnerships. The FERC also indicated that it will incorporate the effects of the revised policy statement in its next review of the oil pipeline index level, which will take

effect in July 2021. We do not have cost-of-service rates that would be impacted by this policy change; our FERC regulated tariffs are either grandfathered or based on negotiated rates. However, depending on how the FERC incorporates its most recent tax policy statement into its next index review, the policy could potentially have a negative impact on the FERC adder to the PPI-FG Index, which in turn could have a negative effect on our ability to increase our index-based rates. The policy could impact future (i.e., July 2021 and later) tariff escalations on our FERC regulated pipelines, as well as some of our state regulated pipelines that have negotiated rates with escalations tied to the FERC Index.

FORWARD-LOOKING STATEMENTS

All statements included in this report, other than statements of historical fact, are forward-looking statements, including but not limited to statements incorporating the words “anticipate,” “believe,” “estimate,” “expect,” “plan,” “intend” and “forecast,” as well as similar expressions and statements regarding our business strategy, plans and objectives for future operations. The absence of such words, expressions or statements, however, does not mean that the statements are not forward-looking. Any such forward-looking statements reflect our current views with respect to future events, based on what we believe to be reasonable assumptions. Certain factors could cause actual results or outcomes to differ materially from the results or outcomes anticipated in the forward-looking statements. The most important of these factors include, but are not limited to:

- our ability to pay distributions to our Class A shareholders;
- our expected receipt of, and amounts of, distributions from Plains AAP, L.P.;
- declines in the actual or expected volume of crude oil and NGL shipped, processed, purchased, stored, fractionated and/or gathered at or through the use of our assets, whether due to declines in production from existing oil and gas reserves, reduced demand, failure to develop or slowdown in the development of additional oil and gas reserves, whether from reduced cash flow to fund drilling or the inability to access capital, or other factors;
- the effects of competition;
- market distortions caused by over-commitments to infrastructure projects, which impacts volumes, margins, returns and overall earnings;
- unanticipated changes in crude oil and NGL market structure, grade differentials and volatility (or lack thereof);
- environmental liabilities or events that are not covered by an indemnity, insurance or existing reserves;
- fluctuations in refinery capacity in areas supplied by our mainlines and other factors affecting demand for various grades of crude oil, NGL and natural gas and resulting changes in pricing conditions or transportation throughput requirements;
- maintenance of PAA’s credit rating and ability to receive open credit from suppliers and trade counterparties;
- the occurrence of a natural disaster, catastrophe, terrorist attack (including eco-terrorist attacks) or other event, including attacks on our electronic and computer systems;
- failure to implement or capitalize, or delays in implementing or capitalizing, on expansion projects, whether due to permitting delays, permitting withdrawals or other factors;
- shortages or cost increases of supplies, materials or labor;
- the impact of current and future laws, rulings, governmental regulations, accounting standards and statements, and related interpretations;
- the failure to consummate, or significant delay in consummating, sales of assets or interests as a part of our strategic divestiture program;
- tightened capital markets or other factors that increase our cost of capital or limit our ability to obtain debt or equity financing on satisfactory terms to fund additional acquisitions, expansion projects, working capital requirements and the repayment or refinancing of indebtedness;

- the availability of, and our ability to consummate, acquisition or combination opportunities;
- the successful integration and future performance of acquired assets or businesses and the risks associated with operating in lines of business that are distinct and separate from historical operations;
- the currency exchange rate of the Canadian dollar;
- continued creditworthiness of, and performance by, our counterparties, including financial institutions and trading companies with which we do business;
- inability to recognize current revenue attributable to deficiency payments received from customers who fail to ship or move more than minimum contracted volumes until the related credits expire or are used;
- non-utilization of our assets and facilities;
- increased costs, or lack of availability, of insurance;
- weather interference with business operations or project construction, including the impact of extreme weather events or conditions;
- the effectiveness of our risk management activities;
- fluctuations in the debt and equity markets, including the price of PAA's units at the time of vesting under its long-term incentive plans;
- risks related to the development and operation of our assets, including our ability to satisfy our contractual obligations to our customers;
- factors affecting demand for natural gas and natural gas storage services and rates;
- general economic, market or business conditions and the amplification of other risks caused by volatile financial markets, capital constraints and pervasive liquidity concerns; and
- other factors and uncertainties inherent in the transportation, storage, terminalling and marketing of crude oil, as well as in the storage of natural gas and the processing, transportation, fractionation, storage and marketing of natural gas liquids.

Other factors described herein, as well as factors that are unknown or unpredictable, could also have a material adverse effect on future results. Please read "Risk Factors" discussed in Item 1A. of our 2017 Annual Report on Form 10-K. Except as required by applicable securities laws, we do not intend to update these forward-looking statements and information.

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to various market risks, including (i) commodity price risk, (ii) interest rate risk and (iii) currency exchange rate risk. We use various derivative instruments to manage such risks and, in certain circumstances, to realize incremental margin during volatile market conditions. Our risk management policies and procedures are designed to help ensure that our hedging activities address our risks by monitoring our exchange-cleared and over-the-counter positions, as well as physical volumes, grades, locations, delivery schedules and storage capacity. We have a risk management function that has direct responsibility and authority for our risk policies, related controls around commercial activities and certain aspects of corporate risk management. Our risk management function also approves all new risk management strategies through a formal process. The following discussion addresses each category of risk.

Commodity Price Risk

We use derivative instruments to hedge price risk associated with the following commodities:

- Crude oil

We utilize crude oil derivatives to hedge commodity price risk inherent in our Supply and Logistics and Transportation segments. Our objectives for these derivatives include hedging anticipated purchases and sales, stored inventory, basis differentials and storage capacity utilization. We manage these exposures with various instruments including exchange-traded and over-the-counter futures, forwards, swaps and options.

- Natural gas

We utilize natural gas derivatives to hedge commodity price risk inherent in our Supply and Logistics and Facilities segments. Our objectives for these derivatives include hedging anticipated purchases of natural gas. We manage these exposures with various instruments including exchange-traded futures, swaps and options.

- NGL and other

We utilize NGL derivatives, primarily propane and butane derivatives, to hedge commodity price risk inherent in our Supply and Logistics segment. Our objectives for these derivatives include hedging anticipated purchases and sales and stored inventory. We manage these exposures with various instruments including exchange-traded and over-the-counter futures, forwards, swaps and options.

See Note 11 to our Condensed Consolidated Financial Statements for further discussion regarding our hedging strategies and objectives.

The fair value of our commodity derivatives and the change in fair value as of September 30, 2018 that would be expected from a 10% price increase or decrease is shown in the table below (in millions):

	Fair Value	Effect of 10% Price Increase	Effect of 10% Price Decrease
Crude oil	\$ (73)	\$ 37	\$ (34)
Natural gas	(9)	\$ 9	\$ (9)
NGL and other	(259)	\$ (105)	\$ 105
Total fair value	<u>\$ (341)</u>		

The fair values presented in the table above reflect the sensitivity of the derivative instruments only and do not include the effect of the underlying hedged commodity. Price-risk sensitivities were calculated by assuming an across-the-board 10% increase or decrease in price regardless of term or historical relationships between the contractual price of the instruments and the underlying commodity price. In the event of an actual 10% change in near-term commodity prices, the fair value of our derivative portfolio would typically change less than that shown in the table as changes in near-term prices are not typically mirrored in delivery months further out.

Interest Rate Risk

Our use of variable rate debt and any forecasted issuances of fixed rate debt expose us to interest rate risk. Therefore, from time to time, we use interest rate derivatives to hedge interest rate risk associated with anticipated interest payments and, in certain cases, outstanding debt instruments. All of PAA's senior notes are fixed rate notes and thus are not subject to interest rate risk. Our variable rate debt outstanding at September 30, 2018, approximately \$560 million, was subject to interest rate re-sets that range from one day to approximately one month. The average interest rate on variable rate debt that was outstanding during the nine months ended September 30, 2018 was 2.9%, based upon rates in effect during such period. The fair value of our interest rate derivatives was an asset of \$15 million as of September 30, 2018. A 10% increase in the forward LIBOR curve as of September 30, 2018 would have resulted in an increase of \$23 million to the fair value of our interest rate derivatives. A 10% decrease in the forward LIBOR curve as of September 30, 2018 would have resulted in a decrease of \$23 million to the fair value of our interest rate derivatives. See Note 11 to our Condensed Consolidated Financial Statements for a discussion of our interest rate risk hedging activities.

Currency Exchange Rate Risk

We use foreign currency derivatives to hedge foreign currency exchange rate risk associated with our exposure to fluctuations in the USD-to-CAD exchange rate. Because a significant portion of our Canadian business is conducted in CAD, we use certain financial instruments to minimize the risks of unfavorable changes in exchange rates. These instruments include foreign currency exchange contracts, forwards and options. The fair value of our foreign currency derivatives was an asset of \$2 million as of September 30, 2018. A 10% increase in the exchange rate (USD-to-CAD) would have resulted in a decrease of \$36 million to the fair value of our foreign currency derivatives. A 10% decrease in the exchange rate (USD-to-CAD) would have resulted in an increase of \$36 million to the fair value of our foreign currency derivatives. See Note 11 to our Condensed Consolidated Financial Statements for a discussion of our currency exchange rate risk hedging.

Preferred Distribution Rate Reset Option

The Preferred Distribution Rate Reset Option of PAA's Series A preferred units is an embedded derivative that must be bifurcated from the related host contract, PAA's partnership agreement, and recorded at fair value in our Condensed Consolidated Balance Sheets. The valuation model utilized for this embedded derivative contains inputs including PAA's common unit price, ten-year U.S. treasury rates, default probabilities and timing estimates to ultimately calculate the fair value of PAA's Series A preferred units with and without the Preferred Distribution Rate Reset Option. The fair value of this embedded derivative was a liability of \$19 million as of September 30, 2018. A 10% increase or decrease in the fair value would have an impact of \$2 million. See Note 11 to our Condensed Consolidated Financial Statements for a discussion of embedded derivatives.

Item 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We maintain written disclosure controls and procedures, which we refer to as our "DCP." Our DCP is designed to ensure that information required to be disclosed by us in reports that we file under the Securities Exchange Act of 1934 (the "Exchange Act") is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (ii) accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, to allow for timely decisions regarding required disclosure.

Applicable SEC rules require an evaluation of the effectiveness of our DCP. Management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our DCP as of September 30, 2018, the end of the period covered by this report, and, based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our DCP is effective.

Changes in Internal Control over Financial Reporting

In addition to the information concerning our DCP, we are required to disclose certain changes in internal control over financial reporting. There have been no changes in our internal control over financial reporting during the third quarter of 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Certifications

The certifications of our Chief Executive Officer and Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a) are filed with this report as Exhibits 31.1 and 31.2. The certifications of our Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. 1350 are furnished with this report as Exhibits 32.1 and 32.2.

PART II. OTHER INFORMATION

Item 1. LEGAL PROCEEDINGS

The information required by this item is included in Note 13 to our Condensed Consolidated Financial Statements, and is incorporated herein by reference thereto.

Item 1A. RISK FACTORS

For a discussion regarding our risk factors, see Item 1A. of our 2017 Annual Report on Form 10-K. Those risks and uncertainties are not the only ones facing us and there may be additional matters of which we are unaware or that we currently consider immaterial. All of those risks and uncertainties could adversely affect our business, financial condition and/or results of operations.

Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

In connection with our IPO and related transactions, the former owners of Plains All American GP LLC (the “Legacy Owners”) acquired the following interests (collectively, the “Stapled Interests”): (i) Class A units of AAP (“AAP units”) representing an economic limited partner interest in AAP; (ii) general partner units representing a non-economic membership interest in our general partner; and (iii) Class B shares representing a non-economic limited partner interest in us. The Legacy Owners and any permitted transferees of their Stapled Interests have the right to exchange (the “Exchange Right”) all or a portion of such Stapled Interests for an equivalent number of Class A shares. In connection with the exercise of the Exchange Right, the Stapled Interests are transferred to us and the applicable Class B shares are canceled. Although we issue one Class A share for each Stapled Interest that is exchanged, we also receive one AAP unit and one general partner unit. As a result, the exercise by Legacy Owners of the Exchange Right is not dilutive. During the three months ended September 30, 2018, certain Legacy Owners or their permitted transferees exercised the Exchange Right, which resulted in the issuance of 1,195,405 Class A shares. The issuance of Class A shares in connection with the exercise of the Exchange Right was exempt from the registration requirements of the Securities Act of 1933, as amended, pursuant to Section 4(a)(2) thereof.

Item 3. DEFAULTS UPON SENIOR SECURITIES

None.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

Item 5. OTHER INFORMATION

None.

Item 6. EXHIBITS

Exhibit No.	Description
3.1	— Certificate of Limited Partnership of Plains GP Holdings, L.P. (incorporated by reference to Exhibit 3.1 to our Registration Statement on Form S-1 (333-190227) filed July 29, 2013).
3.2	— Second Amended and Restated Agreement of Limited Partnership of Plains GP Holdings, L.P. dated as of November 15, 2016 (incorporated by reference to Exhibit 3.2 to our Current Report on Form 8-K filed November 21, 2016).
3.3	— Certificate of Formation of PAA GP Holdings LLC (incorporated by reference to Exhibit 3.3 to our Registration Statement on Form S-1 (333-190227) filed July 29, 2013).
3.4	— Third Amended and Restated Limited Liability Company Agreement of PAA GP Holdings LLC dated as of February 16, 2017 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed February 21, 2017).
3.5	— Amendment No. 1 dated October 1, 2018 to the Third Amended and Restated Limited Liability Company Agreement of PAA GP Holdings LLC (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed August 20, 2018).
3.6	— Seventh Amended and Restated Agreement of Limited Partnership of Plains All American Pipeline, L.P., dated as of October 10, 2017 (incorporated by reference to Exhibit 3.1 to PAA's Current Report on Form 8-K filed October 12, 2017).
3.7	— Seventh Amended and Restated Limited Liability Company Agreement of Plains All American GP LLC dated November 15, 2016 (incorporated by reference to Exhibit 3.3 to our Current Report on Form 8-K filed November 21, 2016).
3.8	— Eighth Amended and Restated Limited Partnership Agreement of Plains AAP, L.P. dated November 15, 2016 (incorporated by reference to Exhibit 3.4 to our Current Report on Form 8-K filed November 21, 2016).
3.9	— Amendment No. 1 dated September 26, 2018 to the Eighth Amended and Restated Limited Partnership Agreement of Plains AAP, L.P. (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed October 2, 2018).
3.10	— Limited Liability Company Agreement of PAA GP LLC dated December 28, 2007 (incorporated by reference to Exhibit 3.3 to PAA's Current Report on Form 8-K filed January 4, 2008).
4.1	— Indenture dated September 25, 2002 among Plains All American Pipeline, L.P., PAA Finance Corp. and Wachovia Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to PAA's Quarterly Report on Form 10-Q for the quarter ended September 30, 2002).
4.2	— Sixth Supplemental Indenture (Series A and Series B 6.70% Senior Notes due 2036) dated May 12, 2006 among Plains All American Pipeline, L.P., PAA Finance Corp., the Subsidiary Guarantors named therein and Wachovia Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to PAA's Current Report on Form 8-K filed May 12, 2006).
4.3	— Tenth Supplemental Indenture (Series A and Series B 6.650% Senior Notes due 2037) dated October 30, 2006 among Plains All American Pipeline, L.P., PAA Finance Corp., the Subsidiary Guarantors named therein and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to PAA's Current Report on Form 8-K filed October 30, 2006).
4.4	— Seventeenth Supplemental Indenture (5.75% Senior Notes due 2020) dated September 4, 2009 among Plains All American Pipeline, L.P., PAA Finance Corp., the Subsidiary Guarantors named therein and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to PAA's Current Report on Form 8-K filed September 4, 2009).
4.5	— Nineteenth Supplemental Indenture (5.00% Senior Notes due 2021) dated January 14, 2011 among Plains All American Pipeline, L.P., PAA Finance Corp., the Subsidiary Guarantors named therein and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to PAA's Current Report on Form 8-K filed January 11, 2011).
4.6	— Twentieth Supplemental Indenture (3.65% Senior Notes due 2022) dated March 22, 2012 among Plains All American Pipeline, L.P., PAA Finance Corp and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to PAA's Current Report on Form 8-K filed March 26, 2012).

- 4.7 — [Twenty-First Supplemental Indenture \(5.15% Senior Notes due 2042\) dated March 22, 2012 among Plains All American Pipeline, L.P., PAA Finance Corp and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.3 to PAA's Current Report on Form 8-K filed March 26, 2012\).](#)
- 4.8 — [Twenty-Second Supplemental Indenture \(2.85% Senior Notes due 2023\) dated December 10, 2012, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.1 to PAA's Current Report on Form 8-K filed December 12, 2012\).](#)
- 4.9 — [Twenty-Third Supplemental Indenture \(4.30% Senior Notes due 2043\) dated December 10, 2012, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.3 to PAA's Current Report on Form 8-K filed December 12, 2012\).](#)
- 4.10 — [Twenty-Fourth Supplemental Indenture \(3.85% Senior Notes due 2023\) dated August 15, 2013, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.1 to PAA's Current Report on Form 8-K filed August 15, 2013\).](#)
- 4.11 — [Twenty-Fifth Supplemental Indenture \(4.70% Senior Notes due 2044\) dated April 23, 2014, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed April 29, 2014\).](#)
- 4.12 — [Twenty-Sixth Supplemental Indenture \(3.60% Senior Notes due 2024\) dated September 9, 2014, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed September 11, 2014\).](#)
- 4.13 — [Twenty-Seventh Supplemental Indenture \(2.60% Senior Notes due 2019\) dated December 9, 2014, by and among Plains All American Pipeline, L.P., PAA Finance Corp., and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed December 11, 2014\).](#)
- 4.14 — [Twenty-Eighth Supplemental Indenture \(4.90% Senior Notes due 2045\) dated December 9, 2014, by and among Plains All American Pipeline, L.P., PAA Finance Corp., and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.3 to our Current Report on Form 8-K filed December 11, 2014\).](#)
- 4.15 — [Twenty-Ninth Supplemental Indenture \(4.65% Senior Notes due 2025\) dated August 24, 2015, by and among Plains All American Pipeline, L.P., PAA Finance Corp., and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.1 to PAA's Current Report on Form 8-K filed August 26, 2015\).](#)
- 4.16 — [Thirtieth Supplemental Indenture \(4.50% Senior Notes due 2026\) dated November 22, 2016, by and among Plains All American Pipeline, L.P., PAA Finance Corp., and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.1 to PAA's Current Report on Form 8-K filed November 29, 2016\).](#)
- 4.17 — [Shareholder and Registration Rights Agreement dated October 21, 2013 by and among Plains GP Holdings, L.P. and the other parties signatory thereto \(incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed October 25, 2013\).](#)
- 10.1 * — [Second Amendment dated March 22, 2018 to Plains AAP, L.P. Class B Restricted Units Agreement \(Willie Chiang\) \(incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018\).](#)
- 10.2 * — [Form of First Amendment dated March 22, 2018 to Amended and Restated Plains AAP, L.P. Class B Restricted Units Agreement dated August 25, 2016 \(Officers\) \(incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018\).](#)
- 10.3 * — [Amendment dated March 22, 2018 to PAA LTIP Grant Letter dated August 24, 2015 \(Willie Chiang\) \(incorporated by reference to Exhibit 10.3 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018\).](#)
- 10.4 * — [Form of Amendment dated March 22, 2018 to PAA LTIP Grant Letter dated August 25, 2016 \(Officers\) \(incorporated by reference to Exhibit 10.4 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018\).](#)
- 10.5 * — [Form of PAA LTIP Grant Letter for Officers \(March 2018\) \(incorporated by reference to Exhibit 10.5 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018\).](#)

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10.6 *†	—	Second Amended and Restated Employment Agreement dated effective October 1, 2018 between Plains All American GP LLC and Greg L. Armstrong.
10.7 *†	—	Amended and Restated Employment Agreement dated effective October 1, 2018 between Plains All American GP LLC and Willie Chiang.
10.8 *†	—	LTIP Grant Letter dated August 16, 2018 (Willie Chiang).
10.9 *†	—	Employment Agreement dated effective October 15, 2018 between Plains All American GP LLC and John vonBerg.
31.1 †	—	Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a).
31.2 †	—	Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a).
32.1 ††	—	Certification of Principal Executive Officer pursuant to 18 U.S.C. 1350.
32.2 ††	—	Certification of Principal Financial Officer pursuant to 18 U.S.C. 1350.
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

† Filed herewith.

†† Furnished herewith.

* Management compensatory plan or arrangement.

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.

PLAINS GP HOLDINGS, L.P.

By: PAA GP HOLDINGS LLC,
its general partner

By: /s/ Willie Chiang

Willie Chiang,
*Chief Executive Officer and Director of PAA GP Holdings LLC
(Principal Executive Officer)*

November 7, 2018

By: /s/ Al Swanson

Al Swanson,
*Executive Vice President and Chief Financial Officer of PAA GP
Holdings LLC (Principal Financial Officer)*

November 7, 2018

By: /s/ Chris Herbold

Chris Herbold,
*Senior Vice President and Chief Accounting Officer of PAA GP
Holdings LLC (Principal Accounting Officer)*

November 7, 2018

**SECOND AMENDED AND RESTATED
EMPLOYMENT AGREEMENT**

This Second Amended and Restated Employment Agreement (“Agreement”), effective as of the date specified in Section 1 below, is by and between Plains All American GP LLC (the “Company”) and Greg L Armstrong (“Armstrong” or the “Employee”). The Company and the Employee are at times referred to collectively as “the Parties.” For purposes of this Agreement, the term “Company Group” means Plains GP Holdings, L.P., PAA GP Holdings LLC (“GP Holdings”), the Company and all of the entities over which the Company has or exercises direct or indirect control, including Plains All American Pipeline, L.P. and its subsidiaries.

WITNESSETH

WHEREAS, Armstrong is currently Chief Executive Officer (“CEO”) of the Company and has served as an officer of the Company and its predecessors for over 30 years;

WHEREAS, Armstrong and the Company are parties to that certain Amended and Restated Employment Agreement dated as of the 30th day of June, 2001, as modified by Waiver Agreements dated August 12, 2005, December 23, 2010 and October 21, 2013 (the “Prior Agreement”);

WHEREAS, in connection with his planned retirement and as approved by the Board of Directors of GP Holdings (the “Board”) in connection with its succession planning for the CEO role, effective as set forth herein Armstrong intends to (i) resign from his position as CEO of the Company and any other positions he currently holds as an officer of any entities that are a part of the Company Group and (ii) continue his employment with the Company as the non-executive Chairman of the Board; and

WHEREAS, the Company and Armstrong desire to enter in to this Agreement to set forth their mutual agreement and understanding related to the continued employment of Armstrong and certain related matters as set forth herein.

NOW, THEREFORE, in consideration of the covenants and conditions herein contained, the Parties agree as follows:

1. Employment; Prior Agreement.

- (a) Effective October 1, 2018 (the “Effective Date”) and subject to the terms hereof, Armstrong hereby (i) resigns his position as CEO of the Company and as an officer of all other members of the Company Group, and (ii) continues his employment with the Company as the non-executive Chairman of the Board. During the Term (as defined below), Armstrong agrees to devote such time and energy as may be reasonably necessary to perform the duties and responsibilities of the Chairman of the Board as set forth in the Third Amended and Restated Limited Liability Company Agreement of PAA GP Holdings LLC, as amended.

(b) The Parties acknowledge and agree that except as may be expressly provided for hereunder (i) this Agreement shall govern the duties, obligations and rights of the Parties with respect to Armstrong's employment by the Company during the Term and (ii) the Prior Agreement shall govern the duties, obligations and rights of the Parties with respect to Armstrong's employment by the Company prior to the Effective Date. Accordingly, the Parties acknowledge and agree that by virtue of their execution and delivery of this Agreement neither Party shall be deemed to have waived any of its rights or claims under the Prior Agreement with respect to Armstrong's employment by the Company prior to the Effective Date.

2. Term. The term of Armstrong's employment with the Company as provided hereunder (the "Term") shall commence on the Effective Date and terminate on December 31, 2019; provided, however, that (a) Armstrong may terminate his employment with the Company as of any date prior to December 31, 2019 by giving written notice to the Company at least two weeks prior to the effective date of such termination, (b) at the direction of the Board, the Company may terminate Armstrong's employment with the Company as of any date prior to December 31, 2019 by giving written notice to Armstrong at least two weeks prior to the effective date of such termination, and (c) Armstrong's employment relationship with the Company shall automatically terminate in the event of his death. The date as of which the employment relationship terminates shall constitute the "Termination Date" for purposes hereof.

3. Compensation and Benefits.

(a) Armstrong shall be paid a monthly salary that equates with an annual payment of \$250,000, payable semi-monthly in cash for so long as Armstrong is employed by the Company under the terms of this Agreement. During the Term, Armstrong shall remain eligible to participate in all employee benefit plans generally available to employees of the Company (including, without limitation, all health and medical benefit plans).

(b) Armstrong will be entitled to receive prompt reimbursement for all reasonable expenses, including travel and entertainment expenses, incurred by him during the Term in connection with (i) his service as Chairman of the Board as contemplated hereunder, (ii) his prior service as CEO and Chairman of the Board pursuant to the Prior Agreement, and (iii) the provision by Armstrong of any assistance with litigation or investigations as contemplated by Section 5 hereof; it being specifically agreed that such reimbursement obligation shall cover and include (A) any such costs and expenses incurred by Armstrong in connection with his service on the National Petroleum Council or any industry or trade groups to which the Company or one of its affiliates belongs and (B) any costs or expenses incurred by Armstrong for private aviation services associated with travel on Company related business (which shall include Armstrong's service on the National Petroleum Council and any industry or trade groups to which the Company or one of its affiliates belongs).

(c) The Company will provide Armstrong with a private office, parking space, electronic equipment, administrative support (Vickie Johnson) and such other facilities and services as reasonably necessary for Armstrong to adequately and efficiently perform services hereunder and that are comparable to similar services, support and facilities provided to Armstrong under the Prior Agreement. Within 30 days following the expiration of the Term, Armstrong shall return all keys, access badges and Company credit cards to the Company; provided, however, that Armstrong shall be entitled to retain any computers, iPhones, iPads, printers, monitors and similar Company issued equipment used by him in connection with this employment (with Company data and software to be removed by the Company).

4. Indemnity. Notwithstanding anything herein to the contrary, Armstrong shall remain a full beneficiary with respect to any obligation of any member of the Company Group (as such obligation exists as of the Effective Date with respect to active officers and employees of such member) to indemnify, keep well and hold harmless or similarly protect Armstrong against third-party claims.

5. Access to Certain Information; Confidentiality Obligations.

(a) During the Term and for a period of two years following the Term, except to the extent not permitted by applicable law or the terms of any agreements entered into by any member of the Company Group with third party service or information providers, the Company agrees that Armstrong shall have the right to (i) receive copies of any materials and analyses prepared by the Company's market fundamentals group (together with Company personnel performing similar functions, the "Fundamentals Group") and (ii) request special research or analyses from the Fundamentals Group; it being understood and agreed that (A) the Fundamentals Group shall give priority to research and analysis requested or required by any member of the Company Group, (B) special research and analyses requests by Armstrong may not be unduly burdensome, and (C) any information or materials provided by the Fundamentals Group to Armstrong shall be and remain the property of the Company Group and shall be subject to the confidentiality obligations referenced in Section 5(b) immediately below.

(b) Armstrong acknowledges and agrees that (i) the confidentiality and non-disclosure obligations set forth in Section 6 of the Prior Agreement are incorporated herein by reference and shall remain in full force and effect during the Term and for a period of five years following the Termination Date and (ii) any information or materials provided by the Fundamentals Group to Armstrong pursuant to Section 5(a) above shall constitute "confidential information" obtained by Armstrong that is subject to such confidentiality and non-disclosure obligation (including the exceptions therefrom set forth in the proviso clause of Section 6 of the Prior Agreement) until the fifth anniversary of the Termination Date.

6. Cooperation with Litigation. Armstrong agrees to render reasonable assistance to the Company in connection with any litigation or investigation relating to the business of

the Company Group. Such assistance shall include, but not be limited to, attending meetings, assisting with discovery responses, giving depositions and making court appearances. The Company shall use commercially reasonable efforts to schedule such assistance at times and places that do not present scheduling issues for Armstrong. The Parties agree that Armstrong shall render the first 100 hours of assistance pursuant to this Section 6 in exchange for the consideration described in Section 3 hereof; provided, however, that with respect to any assistance provided by Armstrong pursuant to this Section 6 in excess of 100 hours, the Company and Armstrong shall agree upon reasonable and appropriate consideration to be paid by the Company to Armstrong.

7. COBRA Payments. The Company will, after the Termination Date, reimburse Armstrong for all costs of maintaining health insurance benefits for Armstrong and his family under, and for the maximum time period allowed by, COBRA at such time; provided, however, that such reimbursement obligation shall not extend beyond the first to occur of (i) the date on which Armstrong first becomes eligible to receive benefits under Medicare, or (ii) the date that is 18 months following the Termination Date.
8. Amendment; Governing Law; Jurisdiction. This Agreement supersedes any and all oral agreements and can only be modified by the Parties in a writing signed by both Parties expressly stating a specific intent to modify this Agreement. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Texas or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Texas. The Parties hereby submit to the exclusive jurisdiction of the state courts of Texas, located in Harris County.
9. Section 409A Compliance. This Agreement shall be interpreted and administered in a manner so that any amount or benefit payable hereunder shall be paid or provided in a manner that is either exempt from or compliant with the requirements of Section 409A of the Internal Revenue Code and applicable Internal Revenue Service guidance and Treasury Regulations issued thereunder (“Section 409A”). If the Parties determine that any payments or benefits to be made or provided hereunder do not comply with Section 409A, the Parties agree to interpret or amend this Agreement or take such other actions as reasonably necessary or appropriate to either (i) remove such payments or benefits from the ambit of Section 409A or (ii) render such payments or benefits compliant thereunder, in any case while preserving to the extent possible the economic agreement of the Parties. Notwithstanding any provision in this Agreement to the contrary, if any payment or benefit provided for herein would be subject to additional taxes and interest under Section 409A if the Employee’s receipt of such payment or benefit is not delayed until the Section 409A Payment Date, then such payment or benefit shall not be provided to the Employee (or the Employee’s estate, if applicable) until the Section 409A Payment Date. The term “Section 409A Payment Date” means the earlier of (a) the date of the Employee’s death or (b) the date that is six months after the date of the Employee’s separation from service with the Company (as determined in accordance with Section 409A).

10. Notices. For purposes of this Agreement, notices and all other communications shall be in writing and shall have been duly given when personally delivered or when mailed by United States certified or registered mail, or transmitted electronically, addressed as follows:

If to the Company:

Plains All American GP LLC
333 Clay Street, Suite 1600
Houston, Texas 77002
Attention: Jim Tillis, VP - Human Resources
Telephone:
Facsimile:
E-mail:

With a copy to:

Plains All American GP LLC
333 Clay Street, Suite 1600
Houston, Texas 77002
Attention: Richard K. McGee, General Counsel
Telephone:
E-mail:

If to the Employee:

Greg L. Armstrong
Telephone:
Email:

13. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

Greg L. Armstrong

PLAINS ALL AMERICAN GP LLC

By: _____

Richard McGee

Executive Vice President

October 1, 2018

WCW (Willie) Chiang

Dear Willie:

The following sets forth an Amended and Restated employment agreement (this "Agreement") between Plains All American GP LLC (the "Company") and WCW (Willie) Chiang ("Executive") that replaces and supersedes that certain employment agreement dated July 10, 2015 between the Company and Executive (the "Original Agreement").

1. Title and Position. (a) Executive's title and position will be Chief Executive Officer ("CEO") of the Company. As CEO, Executive will serve as a member of the Board of Directors of PAA GP Holdings LLC (the "Board") and will report to the Board. As CEO, Executive will also have supervision and control over and responsibility for, the general management and operation of the Company, and shall have such other duties as may from time to time be prescribed by the Board of Directors, provided that such duties are consistent with Executive's position. For so long as he serves as CEO, Executive shall devote such of his entire working time, attention, energies and business efforts to his duties and responsibilities as CEO of the Company as are reasonably necessary to carry out the duties and responsibilities generally appertaining to that office. In addition, for so long as he serves as CEO, Executive shall not engage in any other material business activity (regardless of whether such business activity is pursued for gain, profit or other pecuniary advantage) without the prior written approval of the Compensation Committee of the Board (which approval shall not be unreasonably withheld). Nothing in this Section 1 shall be deemed to restrict the Executive from investing his personal assets as a passive investor in the publicly traded securities of other companies.

(b) Executive acknowledges and agrees that by virtue of being appointed CEO as provided hereunder, he will have received the Executive Promotion prior to the Reference Date, as such terms are defined in the Original Agreement. Accordingly, Executive further acknowledges and agrees that upon the execution by the Company and Executive of this Agreement, except as set forth in the proviso of this sentence the Original Agreement shall cease to be of any force and effect (it being understood that the LTIP Grants and the Class B Agreement referenced in the Original Agreement shall remain in full force and effect pursuant to the respective terms of such agreements as now in effect); provided, however, that notwithstanding the foregoing, the Company acknowledges and agrees that in the event Executive is terminated by the Company other than for Cause prior to December 31, 2019, Executive

shall immediately vest in (i) any remaining unvested Phantom Units covered by the LTIP Grant referenced in Section 2(c) of the Original Agreement and (ii) any remaining unvested Class B Units covered by the Class B Agreement referenced in Section 2(d) of the Original Agreement.

2. Compensation. Executive's compensation will include:

- a. Base Salary. A monthly salary of \$50,000.00, payable semi-monthly in cash for so long as Executive is employed by the Company. This amount may be increased or decreased by the Board of Directors from time to time, but may not be decreased from this base level, or any future increased level, without Executive's express written approval.
- b. Bonus. Executive will be eligible to participate in the Company's annual discretionary bonus program, with the amount of future annual bonuses, if any, to be determined and approved by the Board of Directors, in its discretion, upon the recommendation of the Compensation Committee. Subject to such discretion, Executive's annual bonus target will be equal to 250% of Executive's Base Salary. Annual bonuses, if any, will be paid in cash on the date that annual bonus payments are paid to the other senior executive participants in the annual discretionary bonus program. The Company's obligation to pay an annual bonus with respect to a given calendar year is contingent upon (i) Executive's remaining employed by the Company through the date on which the applicable annual bonus payment is paid, and (ii) continued compliance with the terms of the Confidentiality Agreement, as defined in Section 5 below.
- c. LTIP Grants. In addition to any outstanding awards previously granted, Executive will be eligible to participate in the Company's long-term incentive plan, with the grant and terms of future awards, if any, under such plan to be determined and approved by the Board of Directors, in its discretion, upon the recommendation of the Compensation Committee. Subject to such discretion, Executive's annual LTIP award target value will be equal to 500% of Executive's Base Salary. In connection with the promotion contemplated hereunder and in order to more closely align Executive's total compensation as CEO with the total compensation of CEOs at peer midstream companies, the Board has approved, and Executive acknowledges receipt of, a special LTIP award for 500,000 phantom units, including associated distribution equivalent rights ("DERs"). The phantom units and associated DERs granted to Executive thereunder will vest pursuant to the terms set forth in the letter evidencing such award.
- d. Class B Units. Executive has previously received a grant of 1,000,000 Class B units (375,521 Class B units on a post-split basis) in Plains AAP, L.P. pursuant to that certain Class B Restricted Units Agreement dated August 24, 2015 (as amended on August 25, 2016 and March 22, 2018, the "Class B Agreement"). The Class B Units granted to Executive thereunder will not be affected by this Agreement and will become "earned" units and "vested" units pursuant to the terms set forth in the Class B Agreement.

3. Expense Reimbursement. Company shall reimburse Executive for all reasonable business expenses, including travel and entertainment.
4. Benefits. Executive shall receive and be entitled to other employment benefits, including: (a) five weeks paid vacation, (b) up to 10 days sick leave with pay, (c) participation in the Company's 401(K) Plan, and (d) all health and welfare benefits, including insurance, provided to other senior executives of the Company, on the same basis and terms as other senior executives of the Company.
5. Confidentiality and Non-Solicitation. Executive and the Company are parties to that certain Confidential Information and Non-Solicitation Agreement dated August 24, 2015 (the "Confidentiality Agreement"). The Confidentiality Agreement shall remain in full force and effect according to its terms.
6. Term and Termination. This Agreement will become effective on October 1, 2018 (the "Effective Date"). Either party may terminate Executive's employment at any time. However, notwithstanding the foregoing, termination of Executive's employment shall not affect (a) the obligations of the Company hereunder that arise prior to, or as a result of, such termination, or (b) any rights or obligations under the Confidentiality Agreement that survive such termination.
7. Certain Representations of Executive. Executive represents that: (a) his execution of this Agreement will not violate the terms of any agreement to which he is currently bound; and (b) other than the Confidentiality Agreement, he is not subject to an existing confidentiality, non-compete or similar type agreement that would prevent, limit or otherwise encumber Executive's ability to perform his job with the Company.
8. Return of Materials. Upon termination of his employment for any reason, Executive shall promptly return to Company all copies of any Company data, records, or materials of whatever nature or kind, including all materials incorporating the proprietary information of the Company.
9. Section 409A. If the parties determine, or the Internal Revenue Service asserts, that any payments or benefits to be made or provided to Executive hereunder do not comply with Section 409A of the Internal Revenue Code, then the parties agree to amend this Agreement or take such other actions as reasonably necessary or appropriate to comply with Section 409A while preserving the economic agreement of the parties.
10. Certain Agreements of Executive. Without amending, modifying or expanding the meaning of "Cause" as defined in the Class B Agreement, Executive agrees that he shall at all times:
 - a. adhere to the Company's Trading and Risk Management Policies and Procedures,
 - b. adhere to the Company's Code of Business Conduct, and

- c. not misrepresent or conceal information regarding transactions from senior management or any person responsible for the accurate recording and reporting of each transaction.

11. Executive will not be obligated to seek employment or otherwise mitigate any benefits provided hereunder. Payments provided hereunder will not be reduced by other compensation earned by Executive from another employer following termination.

[Signature Page Follows]

If the foregoing meets with your understanding of our agreement, please execute, date and return one original Agreement for our files.

Very truly yours,

PLAINS ALL AMERICAN GP LLC

By: _____

Name: Greg L. Armstrong

Title: Chief Executive Officer

AGREED TO AND ACCEPTED
this ____ day of September, 2018

WCW (Willie) Chiang



August 16, 2018

Willie Chiang

Re: Grant of Phantom Units

Dear Willie:

I am pleased to inform you that you have been granted 500,000 Phantom Units as of the above date pursuant to the Company's 2013 Long-Term Incentive Plan (the "Plan"). In addition, in tandem with each Phantom Unit you have been granted a distribution equivalent right (a "DER"). A DER represents the right to receive a cash payment equivalent to the amount, if any, paid in cash distributions on one Common Unit of Plains All American Pipeline, L.P. ("PAA" or the "Partnership") to the holder of such Common Unit. The terms and conditions of this grant are as set forth below.

1. Subject to the further provisions of this Agreement, your Phantom Units shall vest (become payable in the form of one Common Unit of PAA for each Phantom Unit) as follows:
 - a. Tranche A, which shall consist of 25% of the total number of Phantom Units covered by this grant letter, shall vest on the later of October 1, 2023 and the first Distribution Date following the date on which the Partnership generates distributable cash flow ("DCF") per common unit on a trailing four quarter basis of at least \$3.00; and
 - b. Tranche B, which shall consist of 75% of the total number of Phantom Units covered by this grant letter, shall vest on the later of October 1, 2023 and the first Distribution Date following the date on which the Partnership generates DCF per common unit on a trailing four quarter basis of at least \$3.50.

The DCF performance thresholds described in this paragraph shall apply to any trailing four-quarter period beginning on or after January 1, 2021. Any remaining Phantom Units that have not vested on or before October 1, 2025, and any associated DERs (regardless of vesting), shall expire on such date. The DCF per common unit amounts referenced in this paragraph are subject to adjustment in the reasonable discretion of the Board to account for significant asset sales.

2. Subject to the further provisions of this Agreement, your DERs shall vest (become payable in cash) as follows: (i) one-third of your DERs shall vest upon and effective

333 Clay Street, Suite 1600 (77002) ■ P.O. Box 4648 ■ Houston, Texas 77210-4648 ■ 713-646-4100

with the first Distribution Date following the date on which the Partnership generates DCF per common unit on a trailing four quarter basis of at least \$2.50, (ii) one-third of your DERs shall vest upon and effective with the first Distribution Date following the date on which the Partnership generates DCF per common unit on a trailing four quarter basis of at least \$2.60, and (iii) one-third of your DERs shall vest upon and effective with the first Distribution Date following the date on which the Partnership generates DCF per common unit on a trailing four quarter basis of at least \$2.80. The DCF performance thresholds described in sections (ii) and (iii) of this paragraph shall apply to any trailing four-quarter period beginning on or after January 1, 2020. The DCF per common unit amounts referenced in this paragraph are subject to adjustment in the reasonable discretion of the Board to account for significant asset sales.

3. Your DERs shall not accrue payments prior to vesting.
4. The number of Phantom Units subject to this award and any DCF per common unit level required for vesting under paragraphs 1 or 2 above shall be proportionately reduced or increased for any split or reverse split, respectively, of the Units, or any event or transaction having a similar effect.
5. Upon vesting of any Phantom Units, an equivalent number of DERs will expire. Any such DERs that are vested prior to, or that would vest as of, the Distribution Date on which the Phantom Units vest, shall be payable on such Distribution Date prior to their expiration.
6. In the event of the termination of your employment with the Company and its Affiliates for any reason (other than in connection with a Change in Status or by reason of your death or "disability," as defined in paragraph 7 below), all of your then outstanding DERs (regardless of vesting) and Phantom Units shall automatically be forfeited as of the date of termination; provided, however, that if the Company or its Affiliates terminate your employment other than as a result of a Termination for Cause, the following provisions shall apply: (i) if such termination occurs prior to October 1, 2019, 20% of your unvested Phantom Units shall be deemed nonforfeitable on the date of termination, and shall vest on the next following Distribution Date; (ii) if such termination occurs after October 1, 2019 but prior to October 1, 2020, 40% of your unvested Phantom Units shall be deemed nonforfeitable on the date of termination, and shall vest on the next following Distribution Date; (iii) if such termination occurs after October 1, 2020 but prior to October 1, 2021, 60% of your unvested Phantom Units shall be deemed nonforfeitable on the date of termination, and shall vest on the

next following Distribution Date; (iv) if such termination occurs after October 1, 2021, any unvested Phantom Units covered by paragraphs 1(a) and 1(b) above with respect to which the Partnership has, as of the date of termination, achieved the applicable DCF vesting criteria for such Phantom Units, shall be deemed nonforfeitable on the date of termination, and shall vest on the next following Distribution Date; and (v) any DERs associated with such unvested, nonforfeitable Phantom Units described in clauses (i)-(iv) immediately preceding shall not be forfeited on the date of termination, but shall vest in accordance with paragraph 2 above and if vested shall be payable and shall expire in accordance with paragraph 1 or paragraph 5 above.

7. In the event of the termination of your employment with the Company and its Affiliates by reason of your death or your “disability” (a physical or mental infirmity that impairs your ability substantially to perform your duties for a period of eighteen months or that the Company otherwise determines constitutes a “disability”), the following provisions shall apply: (i) if such termination takes place prior to the second anniversary of the date of this grant, all of your then outstanding Phantom Units and DERs shall automatically be forfeited as of the date of termination and (ii) if such termination takes place on or after the second anniversary of the date of this grant, your then outstanding Phantom Units shall be deemed nonforfeitable on the date of termination and shall vest on the next following Distribution Date (and any DERs associated with such unvested, nonforfeitable Phantom Units shall not be forfeited on the date of termination, but shall vest in accordance with paragraph 2 above and if vested shall be payable and shall expire in accordance with paragraph 1 or paragraph 5 above). As soon as administratively practicable after the vesting of any Phantom Units pursuant to this paragraph 7, payment will be made in cash in an amount equal to the Market Value of the number of Phantom Units vesting.
8. In the event of a Change in Status, all of your then outstanding Phantom Units and tandem DERs shall be deemed 100% nonforfeitable on such date, and such Phantom Units shall vest in full upon the next Distribution Date.
9. Upon payment pursuant to a DER, the Company will withhold any taxes due from your compensation as required by law. Upon vesting of a Phantom Unit, the Company will withhold any taxes due from your compensation as required by law, which (in the sole discretion of the Company) may include withholding a number of Common Units otherwise payable to you.

As used herein, (i) the “Company” refers to Plains All American GP LLC; (ii) “Distribution Date” means the day in February, May, August or November in any year (as context dictates) that

is 45 days after the end of the most recently completed calendar quarter (or, if not a business day, the closest previous business day); (iii) "Market Value" means the average of the closing sales prices for a Common Unit on the New York Stock Exchange for the five trading days preceding the then most recent "ex dividend" date for payment of a distribution by the Partnership; and (iv) "Board" means the board of directors of PAGP GP (defined below).

The phrase "Change in Status" means (A) the termination of your employment by the Company other than a Termination for Cause, within two and a half months prior to or one year following a Change of Control (the "Protected Period"), (B) the termination of your employment by you due to the occurrence during the Protected Period, without your written consent, of (i) any material diminution in your authority, duties or responsibilities, (ii) any material reduction in your base salary or (iii) any other action or inaction that constitutes a material breach of this Agreement by the Company, or (C) the termination of your employment by you as a result of your retirement on terms and timing that are approved by the Board. A termination by you pursuant to (B) above shall not be a Change in Status unless (1) you provide written notice to the Company of the condition in (B)(i), (ii) or (iii) that would constitute a Change in Status within 90 days of the initial existence of the condition and (2) the Company fails to remedy the condition within the 30-day period following such notice.

The phrase "Change of Control" means, and shall be deemed to have occurred upon the occurrence of, one or more of the following events:

- (i) any Person (other than Plains GP Holdings, L.P. ("PAGP") and any affiliate of PAGP that is controlled by PAGP) becomes the beneficial owner, directly or indirectly (in one transaction or a series of related transactions and whether by merger or otherwise), of 50% or more of the membership interest in PAA GP Holdings LLC, a Delaware limited liability company ("PAGP GP");
- (ii) any Person (other than PAGP GP, PAGP or any affiliate of PAGP that is controlled by PAGP) acquires (in one transaction or a series of related transactions and whether by merger or otherwise) direct or indirect control of the general partner interest of PAGP;
- (iii) PAGP ceases to retain direct or indirect control (in one transaction or a series of related transactions and whether by merger or otherwise) of the general partner of the Partnership; or
- (iv) the consummation of a reorganization, merger or consolidation with, or any direct or indirect sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all or substantially all of the assets of the Partnership to, one or more Persons (other than PAGP or any affiliates of PAGP that are controlled by PAGP).

As used in this definition, "Person" shall include any "partnership, limited partnership, syndicate or other group" constituting a "person" within the meaning of such terms pursuant to Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended.

The phrase "Termination for Cause" shall mean severance of your employment with the Company or its Affiliates based on your (i) failure to perform the duties and responsibilities of your position at an acceptable level as reasonably determined in good faith by the Board, (ii) conviction of or guilty plea to the committing of an act or acts constituting a felony under the laws of the United States or any state thereof (or Canada or any province thereof) or any misdemeanor involving moral turpitude, or (iii) violation of the Company's Code of Business Conduct (unless waived in accordance with the terms thereof), in the case of clauses (i) and (iii), with the specific failure or violation described to you in writing.

Terms used herein that are not defined herein shall have the meanings set forth in the Plan or, if not defined in the Plan, in the Seventh Amended and Restated Agreement of Limited Partnership of Plains All American Pipeline, L.P., as amended (the "Partnership Agreement").

This award is intended to either (i) qualify as a "short-term deferral" under Section 409A of the Internal Revenue Code of 1986, as amended, or (ii) comply with the provisions of Section 409A. If it is determined that any payments or benefits to be made or provided under this Agreement do not comply with Section 409A, the parties agree to amend this Agreement or take such other actions as reasonably necessary or appropriate to comply with Section 409A while preserving the economic agreement of the parties.

By signing below, you agree that the Phantom Units and DERs granted hereunder are governed by the terms of the Plan. Copies of the Plan and the Partnership Agreement are available upon request.

In order for this grant to be effective you must designate a beneficiary that will be entitled to receive any benefits payable under this grant in the event of your death. Unless you indicate otherwise by checking the appropriate box the named beneficiaries on this form will serve as your beneficiaries for all previous LTIP grants. Please execute and return a copy of this grant letter to me and retain a copy for your records

PLAINS ALL AMERICAN PIPELINE, L.P.

By: PAA GP LLC, its general partner
 By: PLAINS AAP, L.P., its sole member
 By: PLAINS ALL AMERICAN GP LLC,

its general partner

By: _____
 Name: Greg L. Armstrong
 Title: Chief Executive Officer

Beneficiary Designation

Primary Beneficiary Name	Relationship	Percent (Must total 100%)
Secondary Beneficiary Name	Relationship	Percent (Must total 100%)

Check this box only if designation does not apply to prior grants

 Willie Chiang

Units: 500,000

Dated: _____

EMPLOYMENT AGREEMENT

This Employment Agreement (“Agreement”), effective as of the date specified in Section 1 below, is by and between Plains All American GP LLC (the “Company”) and John vonBerg (“JvB” or the “Employee”). The Company and the Employee are at times referred to collectively as “the Parties.” For purposes of this Agreement, the term “Company Group” means the Company and all of the entities over which the Company has or exercises direct or indirect control, including Plains All American Pipeline, L.P. and its subsidiaries.

WITNESSETH

WHEREAS, JvB is currently an employee of the Company and has served as an officer of the Company since 2003 and also serves as an officer of certain members of the Company Group;

WHEREAS, certain members of the Company Group have awarded to JvB certain grants of contingent equity rights under the Company’s Long-Term Incentive Plans, including that certain grant of 35,000 phantom units to JvB by letter dated July 5, 2017 (the “LTIP Grant”);

WHEREAS, JvB and the Company are parties to that certain Confidential Information and Non-Solicitation Agreement dated January 15, 2002 (the “Confidentiality Agreement”);

WHEREAS, JvB intends to retire as an officer of the Company and to resign from all offices that he currently holds;

WHEREAS, the CEO of the Company has approved the terms and timing of JvB’s retirement and resignation as an officer; and

WHEREAS, the Company and JvB desire to enter into this Agreement to set forth their mutual agreement and understanding related to the continued employment of JvB and certain related matters as set forth herein.

NOW, THEREFORE, in consideration of the covenants and conditions herein contained, the Parties agree as follows:

1. Employment and Term.

- (a) Effective October 15, 2018 (the “Effective Date”), JvB resigns his position as Executive Vice President of the Company (and from all officer positions of all other members of the Company Group), but will continue his employment with the Company as Strategic Advisor – Merchant Strategies and Asset Optimization, a non-executive employee position, until the Termination Date (defined below) with dual reporting to the President and Chief Commercial Officer (the “CCO”) as well as the Senior Vice President – Commercial Activities (“SVP”). In his capacity as Strategic Advisor, JvB shall provide his views, suggestions, advice and assistance as the CCO and SVP may reasonably request. JvB may elect to “telecommute” in

providing any such services, but shall remain available for in-person meetings as reasonably requested by the CCO or the SVP.

- (b) The Employee's employment with the Company shall commence on the Effective Date and terminate on September 30, 2020; provided; however, that (i) the Employee may terminate his employment with the Company as of any date prior to September 30, 2020 by giving written notice to the Company at least 60 days prior to the effective date of such termination, (ii) the Company may terminate the Employee's employment with the Company as of any date prior to September 30, 2020 by giving written notice to the Employee at least 60 days prior to the effective date of such termination and (iii) Employee's employment relationship with the Company shall automatically terminate in the event of his death. The date as of which the employment relationship terminates shall constitute the "Termination Date" for purposes hereof.

2. Compensation and Benefits.

- (a) JvB shall be paid a base salary at the rate of \$200,000 per annum, payable semi-monthly in arrears, while employed by the Company under the terms of this Agreement and he will be eligible to participate in the Company's annual discretionary bonus program. JvB's annual bonus target will be equal to 50% of his base salary; provided, however, that with respect to the calendar year ending December 31, 2018, JvB's annual bonus shall be no less than \$100,000. In addition, while employed by the Company hereunder, JvB shall remain eligible to participate in all employee benefit plans generally available to employees of the Company. JvB will also continue to have access to a Company phone and computer during the term of this Agreement.
- (b) JvB's previously deferred 2017 annual bonus amount of \$150,000 will be paid within twenty (20) days following the execution of this Agreement by JvB.

3. Equity Grants. The parties agree that the LTIP Grant is the only equity grant outstanding as of the Effective Date. Employee's retirement on the Effective Date as an officer of the Company on terms and timing that have been approved by the CEO constitutes a Change in Status as defined in the LTIP Grant. As such, the phantom units subject to the LTIP Grant shall vest according to their terms (i.e., as of the November 2018 Distribution Date).

4. Indemnity. Notwithstanding anything herein or in the Release to the contrary, JvB shall remain a full beneficiary with respect to any obligation of any member of the Company Group (as such obligation exists as of the Effective Date with respect to active officers and employees of such member) to indemnify, keep well and hold harmless or similarly protect JvB against third-party claims.

5. Release.

- (a) In consideration of the Company's covenants, obligations and undertakings hereunder, subject to Section 5(c), the Employee agrees to release, acquit and discharge and does hereby release, acquit and discharge each member of the Company Group, their respective parent, subsidiary and affiliate entities, and the respective employees, officers, directors, trustees, shareholders, agents and representatives of each of the foregoing, past and present (such entities and individuals being collectively, including all members of the Company Group, the "Company Group Parties"), collectively and individually, from any and all claims, demands, and causes of action or similar rights or liabilities against any of the Company Group Parties, of any kind or character, whether now known or not known, he may have against any such Company Group Party, in their corporate, individual and representative capacities, including, but not limited to, any claim for benefits, bonuses, compensation, costs, damages, expenses, remuneration, salary, or wages through the Effective Date; and further including but not limited to all claims or causes of action arising from his employment, or changes in the nature of his employment relationship (including, without limitation, such changes provided for in this Agreement), or any alleged discriminatory employment practices. This release includes any and all claims for violation or breach of (i) the common law (tort, contract or other) of any jurisdiction including the common law of the State of Texas; (ii) the Age Discrimination in Employment Act, 29 U.S.C. Section 621 et seq.; (iii) any other federal, state and local statute, ordinance, and regulation governing employment including but not limited to those prohibiting discrimination or retaliation in employment upon the basis of age, race, sex, national origin, religion, disability, or any other protected characteristic; and (iv) any claims brought by any person or agency or class action under which the Employee may have a right or benefit. The Employee's release of claims under this Section 5(b) does not apply to any rights or claims the Employee may have that arise after the Effective Date (including, without limitation, those that arise pursuant to the obligations of the Company under this Agreement) or that arise with respect to benefits under the employee benefit plans maintained by the Company Group. Notwithstanding the release of liability included in this Section 5(a), nothing in this Section 5(a) prevents the Employee from filing any non-legally waivable claim (including a challenge to the validity of this Section 5(a)) with the Equal Employment Opportunity Commission ("EEOC") or comparable state or local agency or participating in any investigation or proceeding conducted by the EEOC or comparable state or local agency; however, the Employee understands and agrees that the Employee is waiving any and all rights to recover any monetary or personal relief or recovery as a result of such EEOC, or comparable state or local agency, proceeding or subsequent legal actions.
- (b) JvB acknowledges that he has been and hereby is advised in writing that he may, at his option, discuss this Agreement with an attorney of his choice and that he has

had adequate opportunity to do so. JvB further acknowledges that he has been given 21 days commencing on October 15, 2018, within which to consider this Agreement. If JvB chooses to sign this Agreement at any time prior to the end of such 21-day period, it is agreed that JvB signs willingly and voluntarily, and expressly waives his right to wait the entire 21-day period as provided in the law.

- (c) JvB may revoke this Agreement within the seven-day period beginning on the date he signs this Agreement (such seven-day period being referred to herein as the "Release Revocation Period"). To be effective, such revocation must be in writing signed by the Employee and must be delivered to the Company in accordance with Section 8 hereof before 11:59 p.m., Houston, Texas time, on the last day of the Release Revocation Period. If an effective revocation is delivered in the foregoing manner and timeframe, then this Agreement shall be of no force or effect and shall be null and void *ab initio*.
- (d) In consideration of JvB's covenants, obligations and undertakings hereunder, provided that JvB doesn't revoke this Agreement pursuant to Section 5(c) immediately above, the Company, on behalf of itself and the other members of the Company Group, agrees to release, acquit and discharge and does hereby release, acquit and discharge JvB from any and all claims, demands, and causes of action or similar rights or liabilities against JvB, of any kind or character, whether now known or not known, they may have against JvB; provided, however, that neither the Company nor any Member of the Company Group shall be deemed to have waived any claims, demands, or causes of action against JvB for fraud, theft, conversion or breach of the Confidentiality Agreement. The Company's release of claims under this Section 5(d) does not apply to any rights or claims the Company or any member of the Company Group may have that arise after the Effective Date (including, without limitation, those that arise pursuant to the obligations of JvB under this Agreement).

6. Confidential Information, Non-Competition and Non-Solicitation Covenants. JvB acknowledges and agrees that the Confidentiality Agreement shall remain in full force and effect during the term of this Agreement and for one year following the Termination Date.

7. Amendment; Governing Law; Jurisdiction. This Agreement supersedes any and all oral agreements and can only be modified by the Parties in a writing signed by both Parties expressly stating a specific intent to modify this Agreement. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Texas or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Texas. The Parties hereby submit to the exclusive jurisdiction of the state courts of Texas, located in Harris County.

8. Notices. For purposes of this Agreement, notices and all other communications shall be in writing and shall have been duly given when personally delivered or when mailed by United States certified or registered mail, or transmitted electronically, addressed as follows:

If to the Company:

Plains All American GP LLC
333 Clay Street, Suite 1600
Houston, Texas 77002
Attention: Jim Tillis, VP - Human Resources
Telephone:
Facsimile:
E-mail:

With a copy to:

Plains All American GP LLC
333 Clay Street, Suite 1600
Houston, Texas 77002
Attention: Richard K. McGee, General Counsel
Telephone:
E-mail:

If to the Employee:

John vonBerg

9. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement.

[Signatures begin on the following page.]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

John von Berg

PLAINS ALL AMERICAN GP LLC

By: _____

Harry N. Pefanis

President and Chief Commercial Officer

CERTIFICATION

I, Willie Chiang, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Plains GP Holdings, L.P. (the “registrant”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: November 7, 2018

/s/ Willie Chiang

Willie Chiang

Chief Executive Officer

CERTIFICATION

I, Al Swanson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Plains GP Holdings, L.P. (the “registrant”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: November 7, 2018

/s/ Al Swanson

Al Swanson

Chief Financial Officer

**CERTIFICATION OF
CHIEF EXECUTIVE OFFICER
OF PLAINS GP HOLDINGS, L.P.
PURSUANT TO 18 U.S.C. 1350**

I, Willie Chiang, Chief Executive Officer of Plains GP Holdings, L.P. (the "Company"), hereby certify that:

(i) the accompanying report on Form 10-Q for the period ended September 30, 2018 and filed with the Securities and Exchange Commission on the date hereof (the "Report") by the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Willie Chiang

Name: Willie Chiang

Date: November 7, 2018

**CERTIFICATION OF
CHIEF FINANCIAL OFFICER
OF PLAINS GP HOLDINGS, L.P.
PURSUANT TO 18 U.S.C. 1350**

I, Al Swanson, Chief Financial Officer of Plains GP Holdings, L.P. (the "Company"), hereby certify that:

(i) the accompanying report on Form 10-Q for the period ended September 30, 2018 and filed with the Securities and Exchange Commission on the date hereof (the "Report") by the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Al Swanson

Name: Al Swanson

Date: November 7, 2018