UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

	FORM 10-Q	
✓ QUARTERLY REPORT PURSUANT TO S	ECTION 13 OR 15(d) OF THE SE	CURITIES EXCHANGE ACT OF 1934
1	For the quarterly period ended Mai	rch 31, 2021
	or	
☐ TRANSITION REPORT PURSUANT TO S	SECTION 12 OD 15(4) OF THE SE	CUDITIES EVOUANCE ACT OF 1024
TRANSPITON REPORT TORSUANT TO S	Commission File Number: 1-1	
	ALL AMERICAN I Exact name of registrant as specified i	
Delaware		76-0582150
(State or other jurisdiction of incorporation or org	ganization)	(I.R.S. Employer Identification No.)
Sequentials registered pursuant to Section 12(b) of the	Houston, Texas 77002 (Address of principal executive offices) (713) 646-4100 (Registrant's telephone number, includin	
Securities registered pursuant to Section 12(b) of the Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Units	PAA	Nasdaq
		led by Section 13 or 15(d) of the Securities Exchange Act o uired to file such reports), and (2) has been subject to such
-	-	ractive Data File required to be submitted pursuant to Rule strant was required to submit such files). \square Yes \square No
		d filer, a non-accelerated filer, a smaller reporting company filer," "smaller reporting company," and "emerging growth
Large accelerated filer 🗹		Accelerated filer \Box
Non-accelerated filer \Box		Smaller reporting company \square Emerging growth company \square
		Emerging growth company
Tr	1 1:64 2 1 1 1 1	
If an emerging growth company, indicate by che new or revised financial accounting standards provide		ot to use the extended transition period for complying with change $\operatorname{Act}.$
	ed pursuant to Section 13(a) of the Ex	change Act. \square

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES TABLE OF CONTENTS

<u> </u>	Page
PART I. FINANCIAL INFORMATION	
tem 1. UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS:	
Condensed Consolidated Balance Sheets: As of March 31, 2021 and December 31, 2020	<u>3</u>
Condensed Consolidated Statements of Operations: For the three months ended March 31, 2021 and 2020	<u>4</u> <u>5</u>
Condensed Consolidated Statements of Comprehensive Income/(Loss): For the three months ended March 31, 2021 and 2020	<u>5</u>
Condensed Consolidated Statements of Changes in Accumulated Other Comprehensive Income/(Loss): For the three months ended March 31, 2021 and 2020	5
Condensed Consolidated Statements of Cash Flows: For the three months ended March 31, 2021 and 2020	5 6 7
Condensed Consolidated Statements of Changes in Partners' Capital: For the three months ended March 31, 2021 and 2020	7
Notes to the Condensed Consolidated Financial Statements:	_
1. Organization and Basis of Consolidation and Presentation	<u>8</u>
2. Summary of Significant Accounting Policies	<u>10</u>
3. Revenues and Accounts Receivable	<u>11</u>
4. Net Income/(Loss) Per Common Unit	<u>14</u>
5. Inventory, Linefill and Base Gas and Long-term Inventory	<u>16</u>
6. Debt	<u>16</u>
7. Partners' Capital and Distributions	<u>17</u>
8. Derivatives and Risk Management Activities	19
9. Related Party Transactions	24
10. Commitments and Contingencies	25
11. Operating Segments	19 24 25 28
tem 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	<u>32</u>
tem 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK	54
tem 4. CONTROLS AND PROCEDURES	<u>54</u> <u>55</u>
	_
PART II, OTHER INFORMATION	
tem 1. LEGAL PROCEEDINGS	<u>56</u>
tem 1A, RISK FACTORS	
tem 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS	<u>56</u> <u>56</u>
tem 3. DEFAULTS UPON SENIOR SECURITIES	56
tem 4. MINE SAFETY DISCLOSURES	<u>56</u> <u>56</u>
tem 5. OTHER INFORMATION	57
tem 6. EXHIBITS	<u>57</u> <u>57</u>
SIGNATURES	<u>61</u>

PART I. FINANCIAL INFORMATION

Item 1. UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES CONDENSED CONSOLIDATED BALANCE SHEETS (in millions, except unit data)

(in immons, except unit data)	M	Iarch 31, 2021	December 31, 2020
		(unaud	ited)
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents	\$	30	\$ 22
Restricted cash		26	38
Trade accounts receivable and other receivables, net		3,401	2,553
Inventory		484	647
Other current assets		483	405
Total current assets		4,424	3,665
PROPERTY AND EQUIPMENT		18,716	18,585
Accumulated depreciation		(4,132)	(3,974)
Property and equipment, net		14,584	14,611
OTHER ASSETS			
Investments in unconsolidated entities		3,777	3,764
Linefill and base gas		983	982
Long-term operating lease right-of-use assets, net		361	378
Long-term inventory		178	130
Other long-term assets, net		1,024	967
Total assets	\$	25,331	\$ 24,497
LIABILITIES AND PARTNERS' CAPITAL			
CURRENT LIABILITIES			
Trade accounts payable	\$	3,397	\$ 2,437
Short-term debt		254	831
Other current liabilities		1,027	985
Total current liabilities		4,678	4,253
LONG-TERM LIABILITIES			
Senior notes, net		9,073	9,071
Other long-term debt, net		265	311
Long-term operating lease liabilities		303	317
Other long-term liabilities and deferred credits		928	807
Total long-term liabilities		10,569	10,506
COMMITMENTS AND CONTINGENCIES (NOTE 10)			
PARTNERS' CAPITAL			
Series A preferred unitholders (71,090,468 and 71,090,468 units outstanding, respectively)		1,505	1,505
Series B preferred unitholders (800,000 and 800,000 units outstanding, respectively)		787	787
Common unitholders (722,055,847 and 722,380,416 units outstanding, respectively)		7,651	7,301
Total partners' capital excluding noncontrolling interests		9,943	9,593
Noncontrolling interests		141	145
Total partners' capital		10,084	9,738
Total liabilities and partners' capital	\$	25,331	\$ 24,497

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (in millions, except per unit data)

Three Months Ended March 31, 2021 2020 (unaudited) REVENUES Supply and Logistics segment revenues \$ 8,083 \$ 7,907 187 Transportation segment revenues 137 Facilities segment revenues 163 175 8,383 Total revenues 8,269 **COSTS AND EXPENSES** Purchases and related costs 7,392 7,367 Field operating costs 219 304 General and administrative expenses 67 69 Depreciation and amortization 177 168 (Gains)/losses on asset sales and asset impairments, net 619 2 Goodwill impairment losses 2,515 Total costs and expenses 7,857 11,042 **OPERATING INCOME/(LOSS)** 526 (2,773)OTHER INCOME/(EXPENSE) Equity earnings in unconsolidated entities 88 110 Gain on/(impairment of) investments in unconsolidated entities, net (22)Interest expense (net of capitalized interest of \$5 and \$6, respectively) (107)(108)Other expense, net (60)(31)INCOME/(LOSS) BEFORE TAX 447 (2,824)Current income tax expense (1) (6) Deferred income tax expense (23)(15)NET INCOME/(LOSS) 423 (2,845)Net income attributable to noncontrolling interests (1) (2) 422 \$ \$ (2,847)NET INCOME/(LOSS) ATTRIBUTABLE TO PAA NET INCOME/(LOSS) PER COMMON UNIT (NOTE 4): Net income/(loss) allocated to common unitholders — Basic and Diluted 371 (2,897)Basic and diluted weighted average common units outstanding 722 728 0.51 \$ Basic and diluted net income/(loss) per common unit (3.98)

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME/(LOSS) (in millions)

	Three Mor Mar	ded	
	 2021		2020
	 (unau	ıdited)	
Net income/(loss)	\$ 423	\$	(2,845)
Other comprehensive income/(loss)	108		(327)
Comprehensive income/(loss)	531		(3,172)
Comprehensive income attributable to noncontrolling interests	 (1)		(2)
Comprehensive income/(loss) attributable to PAA	\$ 530	\$	(3,174)

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

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

	Derivative Instruments	Translation Adjustments	Other	Total
		(unau	ıdited)	
Balance at December 31, 2020	\$ (258)	\$ (657)	\$ (3)	\$ (918)
Reclassification adjustments	3	_	_	3
Unrealized gain on hedges	68	_	_	68
Currency translation adjustments	_	37	_	37
Total period activity	71	37		108
Balance at March 31, 2021	\$ (187)	\$ (620)	\$ (3)	\$ (810)

	Derivative Instruments	Translation Adjustments	Other	Total
		(unau	dited)	
Balance at December 31, 2019	\$ (259)	\$ (674)	<u>\$</u>	\$ (933)
Reclassification adjustments	2	_	_	2
Unrealized loss on hedges	(79)	_	_	(79)
Currency translation adjustments	_	(251)	_	(251)
Other	_	_	1	1
Total period activity	(77)	(251)	1	(327)
Balance at March 31, 2020	\$ (336)	\$ (925)	\$ 1	\$ (1,260)

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (in millions)

		Three Months Ended March 31,			
		2021		2020	
		(unau	dited)		
CASH FLOWS FROM OPERATING ACTIVITIES	ф	400	ф	(0.045)	
Net income/(loss)	\$	423	\$	(2,845)	
Reconciliation of net income/(loss) to net cash provided by operating activities:		4.55		4.60	
Depreciation and amortization		177		168	
(Gains)/losses on asset sales and asset impairments, net		2		619	
Goodwill impairment losses				2,515	
Inventory valuation adjustments		_		232	
Deferred income tax expense		23		15	
(Gain)/loss on foreign currency revaluation		(8)		46	
Change in fair value of Preferred Distribution Rate Reset Option (Note 8)		67		(26)	
Equity earnings in unconsolidated entities		(88)		(110)	
Distributions on earnings from unconsolidated entities		110		125	
(Gain on)/impairment of investments in unconsolidated entities, net		_		22	
Other		14		1	
Changes in assets and liabilities, net of acquisitions		71		128	
Net cash provided by operating activities		791		890	
CASH FLOWS FROM INVESTING ACTIVITIES					
Cash paid in connection with acquisitions, net of cash acquired				(308)	
Investments in unconsolidated entities		(35)		(147)	
Additions to property, equipment and other		(97)		(245)	
Proceeds from sales of assets		21		104	
Other investing activities		3		(14)	
Net cash used in investing activities		(108)		(610)	
ivet cash used in investing activities		(100)		(010)	
CASH FLOWS FROM FINANCING ACTIVITIES					
Net repayments under commercial paper program (Note 6)		(410)		(93)	
Net borrowings/(repayments) under senior secured hedged inventory facility (Note 6)		(166)		89	
Distributions paid to Series A preferred unitholders (Note 7)		(37)		(37)	
Distributions paid to common unitholders (Note 7)		(130)		(262)	
Other financing activities		56		111	
Net cash used in financing activities		(687)		(192)	
Effect of translation adjustment		<u> </u>		(10)	
				ì	
Net increase/(decrease) in cash and cash equivalents and restricted cash		(4)		78	
Cash and cash equivalents and restricted cash, beginning of period		60		82	
Cash and cash equivalents and restricted cash, end of period	\$	56	\$	160	
Cash paid for:					
Interest, net of amounts capitalized	¢	GF.	¢	6F	
-	\$ \$	65 24	\$ \$	65 51	
Income taxes, net of amounts refunded	\$	24	Ф	51	

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

			Li	mited Partners			Partners'			
	Preferred Unitholders			Common	Capital Excluding Noncontrolling			Noncontrolling	Total Partners'	
		Series A		Series B	Unitholders	IN	Interests	r	Interests	Capital
					(una	udited	l)			
Balance at December 31, 2020	\$	1,505	\$	787	\$ 7,301	\$	9,593	\$	145	\$ 9,738
Net income		37		12	373		422		1	423
Distributions (Note 7)		(37)		(12)	(130)		(179)		(6)	(185)
Other comprehensive income				_	108		108		_	108
Contributions from noncontrolling interests		_		_	_		_		1	1
Other		_		_	(1)		(1)		_	(1)
Balance at March 31, 2021	\$	1,505	\$	787	\$ 7,651	\$	9,943	\$	141	\$ 10,084

		Li	mited Partners				Partners'			
	Preferred U	Unith	olders		Common		pital Excluding	N	n controlling	Total Partners'
	Series A		Series B	Common Unitholders		Noncontrolling Interests		Noncontrolling Interests		Capital
					(unau	udited)			
Balance at December 31, 2019	\$ 1,505	\$	787	\$	10,770	\$	13,062	\$	133	\$ 13,195
Net income/(loss)	 37		12		(2,896)		(2,847)		2	(2,845)
Distributions	(37)		(12)		(262)		(311)		_	(311)
Other comprehensive loss					(327)		(327)		_	(327)
Contributions from noncontrolling interests	_		_		_		_		8	8
Other	_		_		2		2		_	2
Balance at March 31, 2020	\$ 1,505	\$	787	\$	7,287	\$	9,579	\$	143	\$ 9,722

Note 1—Organization and Basis of Consolidation and Presentation

Organization

Plains All American Pipeline, L.P. ("PAA") is a Delaware limited partnership formed in 1998. Our operations are conducted directly and indirectly through our primary operating subsidiaries. As used in this Form 10-Q and unless the context indicates otherwise, the terms "Partnership," "we," "us," "our," "our," and similar terms refer to PAA and its subsidiaries.

Our business model integrates large-scale supply aggregation capabilities with the ownership and operation of critical midstream infrastructure systems that connect major producing regions to key demand centers and export terminals. As one of the largest midstream service providers in North America, we own an extensive network of pipeline transportation, terminalling, storage and gathering assets in key crude oil and natural gas liquids ("NGL") producing basins (including the Permian Basin) and transportation corridors and at major market hubs in the United States and Canada. Our assets and the services we provide are primarily focused on crude oil, NGL and natural gas. Our business activities are conducted through three operating segments: Transportation, Facilities and Supply and Logistics. See Note 11 for further discussion of our operating segments.

Our non-economic general partner interest is held by PAA GP LLC ("PAA GP"), a Delaware limited liability company, whose sole member is Plains AAP, L.P. ("AAP"), a Delaware limited partnership. In addition to its ownership of PAA GP, as of March 31, 2021, AAP also owned a limited partner interest in us through its ownership of approximately 245.5 million of our common units (approximately 31% of our total outstanding common units and Series A preferred units combined). Plains All American GP LLC ("GP LLC"), a Delaware limited liability company, is AAP's general partner. Plains GP Holdings, L.P. ("PAGP") is the sole and managing member of GP LLC, and, at March 31, 2021, owned an approximate 79% limited partner interest in AAP. PAA GP Holdings LLC ("PAGP GP") is the general partner of PAGP.

As the sole member of GP LLC, PAGP has responsibility for conducting our business and managing our operations; however, the board of directors of PAGP GP has ultimate responsibility for managing the business and affairs of PAGP, AAP and us. GP LLC employs our domestic officers and personnel; our Canadian officers and personnel are employed by our subsidiary, Plains Midstream Canada ULC.

References to our "general partner," as the context requires, include any or all of PAGP GP, PAGP, GP LLC, AAP and PAA GP.

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

= United States Environmental Protection Agency **EPA**

Financial Accounting Standards Board **FASB**

Generally accepted accounting principles in the United States = GAAP

= Intercontinental Exchange ICF.

International Swaps and Derivatives Association **ISDA** =

LIBOR London Interbank Offered Rate LTIP = Long-term incentive plan = Thousand cubic feet Mcf MMbls Million barrels

NGL Natural gas liquids, including ethane, propane and butane

NYMEX = New York Mercantile Exchange

SEC United States Securities and Exchange Commission

TWh Terawatt hour = United States dollar USD West Texas Intermediate WTI

Basis of Consolidation and Presentation

The accompanying unaudited condensed consolidated interim financial statements and related notes thereto should be read in conjunction with our 2020 Annual Report on Form 10-K. The accompanying condensed consolidated financial statements include the accounts of PAA 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, 2020 was derived from audited financial statements, but does not include all disclosures required by GAAP. The results of operations for the three months ended March 31, 2021 should not be taken as indicative of results to be expected for the entire year.

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

Note 2—Summary of Significant Accounting Policies

Restricted Cash

Restricted cash includes cash held by us that is unavailable for general use and is comprised of amounts advanced to us by certain equity method investees related to the construction of fixed assets where we serve as construction manager. The following table presents a reconciliation of cash and cash equivalents and restricted cash reported on our Condensed Consolidated Balance Sheets that sum to the total of the amounts shown on our Condensed Consolidated Statements of Cash Flows (in millions):

	arch 31, 2021	De	ecember 31, 2020
Cash and cash equivalents	\$ 30	\$	22
Restricted cash	26		38
Total cash and cash equivalents and restricted cash	\$ 56	\$	60

Property and Equipment

During the first quarter of 2021, we modified the useful lives of certain of our Pipeline and related facilities and Storage, terminal and rail facilities to useful lives of 10 to 50 years from useful lives of 10 to 70 years to reflect current expectations given our future operating and commercial outlook. These depreciable life adjustments will prospectively increase depreciation expense. For the three months ended March 31, 2021, these reductions increased depreciation expense by approximately \$18 million, which resulted in a decrease to both basic and diluted net income per common unit of approximately \$0.03 from what it would have been absent the change in useful lives.

Recent Accounting Pronouncements

Except as discussed below and in our 2020 Annual Report on Form 10-K, there have been no new accounting pronouncements that have become effective or have been issued during the three months ended March 31, 2021 that are of significance or potential significance to us.

Accounting Standards Updates Adopted During the Period

We adopted the ASU listed below effective January 1, 2021 and our adoption did not have a material impact on our financial position, results of operations or cash flows (see Note 2 to our Consolidated Financial Statements included in Part IV of our 2020 Annual Report on Form 10-K for additional information regarding this ASU):

• ASU 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes.

Note 3—Revenues and Accounts Receivable

Revenue Recognition

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. See Note 3 to our Consolidated Financial Statements included in Part IV of our 2020 Annual Report on Form 10-K for additional information regarding our types of revenues and policies for revenue recognition.

The following tables present our Supply and Logistics, Transportation and Facilities segment revenues from contracts with customers disaggregated by type of activity (in millions):

		Three Months Ended March 31,		
	2021		2020	
Supply and Logistics segment revenues from contracts with customers				
Crude oil transactions	\$ 7,7	11 \$	7,322	
NGL and other transactions	6	84	428	
Total Supply and Logistics segment revenues from contracts with customers	\$ 8,3	95 \$	7,750	
		Months E		
	2021		2020	
Transportation segment revenues from contracts with customers				
Tariff activities:				
Crude oil pipelines	\$ 3	97 \$	512	
NGL pipelines		27	26	
Total tariff activities	4	24	538	
Trucking		22	35	
Total Transportation segment revenues from contracts with customers	<u>\$ 4</u>	46 \$	573	
		Months I March 31,		
	2021		2020	
Facilities segment revenues from contracts with customers				
Crude oil, NGL and other terminalling and storage		70 \$	182	
NGL and natural gas processing and fractionation		73	109	
Rail load / unload		11	14	
Total Facilities segment revenues from contracts with customers	<u>\$ 2</u>	54 \$	305	

Reconciliation to Total Revenues of Reportable Segments. The following disclosures only include information regarding revenues associated with consolidated entities; revenues from entities accounted for by the equity method are not included. The following tables present 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 Statements of Operations (in millions):

Three Months Ended March 31, 2021	Trans	portation	Facilities	Supply and Logistics	Total
Revenues from contracts with customers	\$	446	\$ 254	\$ 8,395	\$ 9,095
Other items in revenues		41	17	(312)	(254)
Total revenues of reportable segments	\$	487	\$ 271	\$ 8,083	\$ 8,841
Intersegment revenues			_		(458)
Total revenues					\$ 8,383

Three Months Ended March 31, 2020	Tra	nsportation	Facilities	Supply and Logistics	Total
Revenues from contracts with customers	\$	573	\$ 305	\$ 7,750	\$ 8,628
Other items in revenues		6	8	158	172
Total revenues of reportable segments	\$	579	\$ 313	\$ 7,908	\$ 8,800
Intersegment revenues			_	_	(531)
Total revenues					\$ 8,269

Minimum Volume Commitments. We have certain agreements that require counterparties to transport or throughput a minimum volume over an agreed upon period. The following table presents counterparty deficiencies associated with contracts with customers and buy/sell arrangements that include minimum volume commitments for which we had remaining performance obligations and the customers still had the ability to meet their obligations (in millions):

Counterparty Deficiencies	Financial Statement Classification	arch 31, 2021	ember 31, 2020
Billed and collected	Liability	\$ 47	\$ 73
Unbilled (1)	N/A	24	4
Total		\$ 71	\$ 77

Amounts were related to deficiencies for which the counterparties had not met their contractual minimum commitments and are 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 liability balance associated with contracts with customers (in millions):

	Contr	act Liabilities
Balance at December 31, 2020	\$	501
Amounts recognized as revenue (1)		(380)
Additions (2)		373
Balance at March 31, 2021	\$	494

⁽¹⁾ Includes approximately \$361 million associated with crude oil sales agreements that were entered into in the fourth quarter of 2020 in conjunction with storage arrangements and future inventory exchanges.

⁽²⁾ Includes approximately \$346 million associated with crude oil sales agreements that were entered into in the first quarter of 2021 in conjunction with storage arrangements and future inventory exchanges. Such amount is expected to be recognized as revenue in the second quarter of 2021.

Remaining Performance Obligations. The information below includes the amount of consideration allocated to partially and wholly unsatisfied remaining performance obligations under contracts that exist as of the end of the periods 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. 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 March 31, 2021 (in millions):

	Remaind 2021		2022	2023	2024	2025	2026 and Thereafter
Pipeline revenues supported by minimum volume commitments and capacity agreements (1)	\$	135	\$ 171	\$ 171	\$ 146	\$ 126	\$ 456
Storage, terminalling and throughput agreement revenues		275	302	220	179	116	332
Total	\$	410	\$ 473	\$ 391	\$ 325	\$ 242	\$ 788

(1) Calculated as volumes committed under contracts multiplied by the current applicable tariff rate.

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 ASC 606 or do not meet the requirements for presentation as remaining performance obligations. The following are examples of contracts that are not included in the table above because they are not within the scope of ASC 606 or do not meet the requirements for presentation:

- Minimum volume commitments on certain of our joint venture pipeline systems;
- · Acreage dedications;
- Supply and Logistics buy/sell arrangements with future committed volumes;
- All other Supply and Logistics contracts, due to the election of practical expedients related to variable consideration and short-term contracts;
- · Transportation and Facilities contracts that are short-term;
- Contracts within the scope of ASC 842, Leases; and
- · Contracts within the scope of ASC 815, Derivatives and Hedging.

Trade Accounts Receivable and Other Receivables, Net

Our accounts receivable are primarily from purchasers and shippers of crude oil and, to a lesser extent, purchasers of NGL. These purchasers include, but are not limited to, refiners, producers, marketing and trading companies and financial institutions. The majority of our accounts receivable relate to our crude oil supply and logistics activities that can generally be described as high volume and low margin activities, in many cases involving exchanges of crude oil volumes.

During 2020, macroeconomic and geopolitical conditions including the collapse of oil prices driven by both the decrease in demand caused by the COVID-19 pandemic and excess supply has caused liquidity issues impacting many energy companies, which in turn has increased the potential credit risks associated with certain counterparties with which we do business. 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. Additionally, in an effort to mitigate credit risk, a significant portion of our transactions with counterparties are settled on a net-cash basis. For a majority of these net-cash arrangements, 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).

Accounts receivable from the sale of crude oil are generally settled with counterparties on the industry settlement date, which is typically in the month following the month in which the title transfers. Otherwise, we generally invoice customers within 30 days of when the products or services were provided and generally require payment within 30 days of the invoice date. We review all outstanding accounts receivable balances on a monthly basis and record our receivables net of expected credit losses. We do not write-off accounts receivable balances until we have exhausted substantially all collection efforts. At March 31, 2021 and December 31, 2020, substantially all of our trade accounts receivable were less than 30 days past their invoice date. Our expected credit losses are immaterial. Although we consider our credit procedures to be adequate to mitigate any significant credit losses, the actual amount of current and future credit losses could vary significantly from estimated amounts.

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 Sheets (in millions):

	March 31, 2021	Decemb	per 31, 2020
Trade accounts receivable arising from revenues from contracts with customers	\$ 3,140	\$	2,317
Other trade accounts receivables and other receivables (1)	3,582		2,818
Impact due to contractual rights of offset with counterparties	(3,321)		(2,582)
Trade accounts receivable and other receivables, net	\$ 3,401	\$	2,553

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

Note 4—Net Income/(Loss) Per Common Unit

We calculate basic and diluted net income/(loss) per common unit by dividing net income/(loss) attributable to PAA (after deducting amounts allocated to preferred unitholders and participating securities) by the basic and diluted weighted average number of common units outstanding during the period. Participating securities include equity-indexed compensation plan awards that have vested distribution equivalent rights, which entitle the grantee to a cash payment equal to the cash distribution paid on our outstanding common units.

The diluted weighted average number of common units is computed based on the weighted average number of common units plus the effect of potentially dilutive securities outstanding during the period, which include (i) our Series A preferred units and (ii) our equity-indexed compensation plan awards. When applying the if-converted method prescribed by FASB guidance, the possible conversion of approximately 71 million Series A preferred units, on a weighted-average basis, were excluded from the calculation of diluted net income/(loss) per common unit for the three months ended March 31, 2021 and 2020 as the effect was antidilutive for each period. Our equity-indexed compensation plan awards that contemplate the issuance of common units are considered potentially dilutive unless (i) they become vested only upon the satisfaction of a performance condition and (ii) that performance condition has yet to be satisfied. Equity-indexed compensation plan awards that are deemed to be dilutive during the period are reduced by a hypothetical common unit repurchase based on the remaining unamortized fair value, as prescribed by the treasury stock method in guidance issued by the FASB. As a result of the hypothetical common unit repurchase, there were no potentially dilutive equity-indexed compensation plan awards for the three months ended March 31, 2021. Potentially dilutive equity-indexed compensation plan awards of approximately 1 million units, on a weighted-average basis, were excluded from the computation of diluted net loss per common unit for the three months ended March 31, 2020 as the effect was antidilutive. See Note 18 to our Consolidated Financial Statements included in Part IV of our 2020 Annual Report on Form 10-K for a discussion of our equity-indexed compensation plan awards.

The following table sets forth the computation of basic and diluted net income/(loss) per common unit (in millions, except per unit data):

		Three Months Ended March 31,		
		2021		2020
Basic and Diluted Net Income/(Loss) per Common Unit		,		
Net income/(loss) attributable to PAA	\$	422	\$	(2,847)
Distributions to Series A preferred unitholders		(37)		(37)
Distributions to Series B preferred unitholders		(12)		(12)
Distributions to participating securities		(1)		(1)
Other		(1)		_
Net income/(loss) allocated to common unitholders (1)	\$	371	\$	(2,897)
	-			
Basic and diluted weighted average common units outstanding		722		728
Basic and diluted net income/(loss) per common unit	\$	0.51	\$	(3.98)

We calculate net income/(loss) allocated to common unitholders based on the distributions pertaining to the current period's net income. After adjusting for the appropriate period's distributions, the remaining undistributed earnings or excess distributions over earnings (i.e., undistributed loss), if any, are allocated to the common unitholders and participating securities in accordance with the contractual terms of our partnership agreement in effect for the period and as further prescribed under the two-class method.

Note 5—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):

	March 31, 2021					December 31, 2020						
	Volumes	Unit of Measure		arrying Value	Price/ Unit ⁽¹⁾		Volumes	Unit of Measure		Carrying Value		Price/ Unit ⁽¹⁾
Inventory												
Crude oil	8,896	barrels	\$	373	\$	41.93	13,450	barrels	\$	441	\$	32.79
NGL	4,872	barrels		105	\$	21.55	12,302	barrels		199	\$	16.18
Other	N/A			6		N/A	N/A			7		N/A
Inventory subtotal			_	484						647		
Linefill and base gas												
Crude oil	14,653	barrels		828	\$	56.51	14,669	barrels		828	\$	56.45
NGL	1,650	barrels		45	\$	27.27	1,640	barrels		44	\$	26.83
Natural gas	25,576	Mcf		110	\$	4.30	25,576	Mcf		110	\$	4.30
Linefill and base gas subtotal				983						982		
-												
Long-term inventory												
Crude oil	2,669	barrels		154	\$	57.70	2,499	barrels		111	\$	44.42
NGL	1,105	barrels		24	\$	21.72	1,185	barrels		19	\$	16.03
Long-term inventory subtotal			-	178						130		
•												
Total			\$	1,645					\$	1,759		

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.

Note 6—Debt

Debt consisted of the following (in millions):

	March 31, 2021]	December 31, 2020
SHORT-TERM DEBT			
Commercial paper notes, bearing a weighted-average interest rate of 0.6% and 0.7%, respectively $^{\left(1\right)}$	\$ 137	\$	547
Senior secured hedged inventory facility, bearing a weighted-average interest rate of 1.2% (1)	_		167
Other	117		117
Total short-term debt	254		831
LONG-TERM DEBT			
Senior notes, net of unamortized discounts and debt issuance costs of \$60 and \$62, respectively	9,073		9,071
GO Zone term loans, net of debt issuance costs of \$1 and \$1, respectively, bearing a weighted-average interest rate			400
of 1.3% and 1.3%, respectively	199		199
Other	66		112
Total long-term debt	9,338		9,382
Total debt ⁽²⁾	\$ 9,592	\$	10,213

- We classified these commercial paper notes as short-term as of March 31, 2021 and December 31, 2020, respectively, and these credit facility borrowings as short-term as of December 31, 2020, 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.
- Our fixed-rate senior notes had a face value of approximately \$9.1 billion at both March 31, 2021 and December 31, 2020. We estimated the aggregate fair value of these notes as of March 31, 2021 and December 31, 2020 to be approximately \$9.5 billion and \$9.9 billion, respectively. Our 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 our credit facilities, commercial paper program and GO Zone term loans approximates fair value as interest rates reflect current market rates. The fair value estimates for our senior notes, credit facilities, commercial paper program and GO Zone term loans are based upon observable market data and are classified in Level 2 of the fair value hierarchy.

Borrowings and Repayments

Total borrowings under our credit facilities and commercial paper program for the three months ended March 31, 2021 and 2020 were approximately \$14.2 billion and \$9.6 billion, respectively. Total repayments under our credit facilities and commercial paper program were approximately \$14.8 billion and \$9.6 billion for the three months ended March 31, 2021 and 2020, 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 March 31, 2021 and December 31, 2020, we had outstanding letters of credit of \$130 million and \$129 million, respectively.

Note 7—Partners' Capital and Distributions

Units Outstanding

The following tables present the activity for our preferred and common units:

		Limited Partners	
	Series A Preferred Units	Series B Preferred Units	Common Units
Outstanding at December 31, 2020	71,090,468	800,000	722,380,416
Repurchase and cancellation of common units under Common Equity Repurchase Program $^{(1)}$		_	(350,000)
Issuances of common units under equity-indexed compensation plans			25,431
Outstanding at March 31, 2021	71,090,468	800,000	722,055,847
		Limited Partners	
	Series A Preferred Units	Series B Preferred Units	Common Units
Outstanding at December 31, 2019	71,090,468	800,000	728,028,576
Issuances of common units under equity-indexed compensation plans			24,431
Outstanding at March 31, 2020	71,090,468	800,000	728,053,007

Trades for these units were executed in late December 2020, but settled in early January 2021.

Distributions

Series A Preferred Unit Distributions. The following table details distributions to our Series A preferred unitholders paid during or pertaining to the first three months of 2021 (in millions, except per unit data):

	Series A Preferred Unitholders				
Distribution Payment Date	Cash	Distribution	Distribution per Unit		
May 14, 2021 ⁽¹⁾	\$	37	\$	0.525	
February 12, 2021	\$	37	\$	0.525	

Payable to unitholders of record at the close of business on April 30, 2021 for the period from January 1, 2021 through March 31, 2021. At March 31, 2021, such amount was accrued as distributions payable in "Other current liabilities" on our Condensed Consolidated Balance Sheet.

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

	Series B Preferred Unitholders						
Distribution Payment Date	Cash I	Distribution	Distril	Distribution per Unit			
May 17, 2021 ⁽¹⁾	\$	24.5	\$	30.625			

Payable to unitholders of record at the close of business on May 3, 2021 for the period from November 15, 2020 through May 14, 2021.

At March 31, 2021, approximately \$18 million of accrued distributions payable to our Series B preferred unitholders was included in "Other current liabilities" on our Condensed Consolidated Balance Sheet.

Common Unit Distributions. The following table details distributions to our common unitholders paid during or pertaining to the first three months of 2021 (in millions, except per unit data):

	Common Unitholders						sh Distribution per	
Distribution Payment Date	Public		AAP	Total Cash Distribution			Common Unit	
May 14, 2021 ⁽¹⁾	\$ 86	\$	44	\$	130	\$	0.18	
February 12, 2021	\$ 86	\$	44	\$	130	\$	0.18	

Payable to unitholders of record at the close of business on April 30, 2021 for the period from January 1, 2021 through March 31, 2021.

Noncontrolling Interests in Subsidiaries

During the three months ended March 31, 2021, we paid distributions of \$6 million to noncontrolling interests in Red River Pipeline Company LLC.

Note 8—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. We use various derivative instruments to optimize our profits while managing our exposure to (i) hydrocarbon commodity (referred to herein as "commodity") price risk, (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. Our policy is to use derivative instruments for risk management purposes and not for the purpose of speculating on changes in commodity prices, interest rates or currency exchange rates. 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. At the inception of the hedging relationship, we assess whether the derivatives employed are highly effective in offsetting changes in cash flows of anticipated hedged transactions. Throughout the hedging relationship, retrospective and prospective hedge effectiveness is assessed on a qualitative basis.

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 designated as cash flow hedges, changes in fair value are deferred in AOCI and recognized in earnings in the periods during which the underlying hedged transactions are recognized in earnings. Derivatives that are not designated in a hedging relationship for accounting purposes 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.

Our financial derivatives, used for hedging risk, 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.

At March 31, 2021 and December 31, 2020, 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 our credit ratings. Although we may be required to post margin on our exchange-traded derivatives transacted through a clearing brokerage account, as described below, we do not require our non-cleared derivative counterparties to post collateral with us.

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 sales market, (ii) structure our sales contracts so that price fluctuations do not materially affect our operating income and (iii) not acquire and hold material 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 March 31, 2021, net derivative positions related to these activities included:

- A net long position of 9.3 million barrels associated with our crude oil purchases, which was unwound ratably during April 2021 to match monthly average pricing.
- A net short time spread position of 6.5 million barrels, which hedges a portion of our anticipated crude oil lease gathering purchases through June 2022.
- A net crude oil basis spread position of 1.1 million barrels at multiple locations through December 2022. These derivatives allow us to lock in grade basis differentials.

A net short position of 20.1 million barrels through December 2022 related to anticipated net sales of crude oil and NGL inventory.

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. The following table summarizes our open derivative positions utilized to hedge the price risk associated with anticipated purchases and sales related to our natural gas processing and NGL fractionation activities as of March 31, 2021:

	Notional Volume	
	(Short)/Long	Remaining Tenor
Natural gas purchases	52.5 Bcf	March 2022
Propane sales	(9.6) MMbls	March 2022
Butane sales	(3.0) MMbls	March 2022
Condensate sales (WTI position)	(1.0) MMbls	March 2022
Fuel gas requirements (1)	12.5 Bcf	December 2022
Power supply requirements (1)	0.8 TWh	December 2023

Positions to hedge a portion of our power supply and fuel gas requirements at our Canadian natural gas processing and fractionation plants.

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.

Our commodity derivatives are not designated in a hedging relationship for accounting purposes; as such, changes in the fair value are reported in earnings. A summary of the impact of our commodity derivatives recognized in earnings as follows (in millions):

	Three Mor Mare	ıded
	2021	2020
Supply and Logistics segment revenues	\$ (314)	\$ 149
Field operating costs	39	1
Net gain/(loss) from commodity derivative activity	\$ (275)	\$ 150

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/(payable) (in millions):

	March 31, 2021	Γ	December 31, 2020
Initial margin	\$ 62	\$	91
Variation margin posted/(returned)	259		290
Letters of credit	(52)		(63)
Net broker receivable/(payable)	\$ 269	\$	318

The following table reflects the Condensed Consolidated Balance Sheet line items that include the fair values of our commodity derivative assets and liabilities and the effect of the collateral netting. Such amounts are presented on a gross basis, before the effects of counterparty netting. However, we have elected to present our commodity derivative assets and liabilities with the same counterparty on a net basis on our Condensed Consolidated Balance Sheet when the legal right of offset exists. Amounts in the table below are presented in millions.

	 March 31, 2021							December 31, 2020								
	 Commodity Assets		ivatives Liabilities		Effect of Collateral Netting]	Net Carrying Value Presented on the Balance Sheet		Commodity Assets		ivatives Liabilities		Effect of Collateral Netting	P	et Carrying Value resented on he Balance Sheet	
Derivative Assets																
Other current assets	\$ 97	\$	(261)	\$	269	\$	105	\$	71	\$	(314)	\$	318	\$	75	
Other long-term assets, net	4		_		_		4		5		_		_		5	
Derivative Liabilities																
Other current liabilities	3		(156)		_		(153)		9		(40)		_		(31)	
Other long-term liabilities and deferred credits	1		(58)		_		(57)		_		(32)		_		(32)	
Total	\$ 105	\$	(475)	\$	269	\$	(101)	\$	85	\$	(386)	\$	318	\$	17	

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 March 31, 2021 (notional amounts in millions):

Hedged Transaction	Number and Types of Derivatives Employed	lotional Amount	Expected Termination Date	Average Rate Locked	Accounting Treatment
Anticipated interest payments	8 forward starting swaps (30-year)	\$ 200	6/15/2023	1.38 %	Cash flow hedge
Anticipated interest payments	8 forward starting swaps (30-year)	\$ 200	6/14/2024	0.73 %	Cash flow hedge

As of March 31, 2021, there was a net loss of \$187 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. We reclassified losses of \$3 million and \$2 million during the three months ended March 31, 2021 and 2020, respectively. Of the total net loss deferred in AOCI at March 31, 2021, we expect to reclassify a loss of \$13 million to earnings in the next twelve months. We estimate that substantially all of the remaining deferred loss will be reclassified to earnings through 2054 as the underlying hedged transactions impact earnings. A portion of these amounts is based on market prices as of March 31, 2021; 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):

		onths Ended rch 31,			
	2021		2020		
Interest rate derivatives, net	\$ 68	\$	(79)		

At March 31, 2021, the net fair value of our interest rate hedges, which were included in "Other long-term assets, net" on our Condensed Consolidated Balance Sheet, totaled \$114 million. At December 31, 2020, the net fair value of these hedges totaled \$46 million and was included in "Other long-term assets, net."

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.

Our use of 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 March 31, 2021 (in millions):

		USD	C	AD	Average Exchange Rate USD to CAD
Forward exchange contracts that exchange CAD for USD:					
	2021	\$ 167	\$	210	\$1.00 - \$1.25
Forward exchange contracts that exchange USD for CAD:					
	2021	\$ 227	\$	285	\$1.00 - \$1.26

These derivatives are not designated in a hedging relationship for accounting purposes. As such, changes in fair value are recognized in earnings as a component of Supply and Logistics segment revenues. For the three months ended March 31, 2021 and 2020, the amounts recognized in earnings for our currency exchange rate hedges were a gain of \$1 million and a loss of \$6 million, respectively.

At March 31, 2021, the net fair value of these currency exchange rate hedges, which was included in "Other current assets" on our Condensed Consolidated Balance Sheet, totaled \$1 million. At December 31, 2020, the net fair value of these currency exchange rate hedges, which was included in "Other current assets" on our Condensed Consolidated Balance Sheet, totaled \$2 million.

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 our Series A preferred units is an embedded derivative that must be bifurcated from the related host contract, our partnership agreement, and recorded at fair value on our Condensed Consolidated Balance Sheets. This embedded derivative is not designated in a hedging relationship for accounting purposes and corresponding changes in fair value are recognized in "Other expense, net" in our Condensed Consolidated Statement of Operations. For the three months ended March 31, 2021 and 2020, we recognized a loss of \$67 million and a gain of \$26 million, respectively. The fair value of the Preferred Distribution Rate Reset Option, which was included in "Other long-term liabilities and deferred credits" on our Condensed Consolidated Balance Sheets, totaled \$81 million and \$14 million at March 31, 2021 and December 31, 2020, respectively. See Note 12 to our Consolidated Financial Statements included in Part IV of our 2020 Annual Report on Form 10-K for additional information regarding our Series A preferred units and the Preferred Distribution Rate Reset Option.

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):

		I	/alue as of	ch 31, 202		Fair Value as of December 31, 2020										
Recurring Fair Value Measures (1)	I	Level 1		Level 2		Level 3		Total	Level 1		Level 2		Level 3			Total
Commodity derivatives	\$	(241)	\$	(118)	\$	(11)	\$	(370)	\$	(143)	\$	(143)	\$	(15)	\$	(301)
Interest rate derivatives		_		114		_		114		_		46		_		46
Foreign currency derivatives		_		1		_		1		_		2		_		2
Preferred Distribution Rate Reset Option		_		_		(81)		(81)		_		_		(14)		(14)
Total net derivative asset/(liability)	\$	(241)	\$	(3)	\$	(92)	\$	(336)	\$	(143)	\$	(95)	\$	(29)	\$	(267)

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 swaps. The fair value of exchange-traded commodity derivatives and over-the-counter commodity contracts is 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 values of these derivatives are corroborated with market observable inputs.

Level 3

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

The fair values of our Level 3 physical commodity and other contracts and over-the-counter options are based on valuation models utilizing significant timing estimates, which involve management judgment, and pricing inputs from observable and unobservable markets with less volume and transaction frequency than active markets. Significant deviations from these estimates and inputs could result in a material change in fair value. We report unrealized gains and losses associated with these contracts in our Condensed Consolidated Statements of Operations as Supply and Logistics segment revenues.

The fair value of the embedded derivative feature contained in our partnership agreement is based on a valuation model that estimates the fair value of the Series A preferred units with and without the Preferred Distribution Rate Reset Option. This model contains inputs, including our common unit price, ten-year U.S. Treasury rates, default probabilities and timing estimates, some of which involve management judgment. A significant change in these inputs could result in a material change in fair value to this embedded derivative feature.

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 Mor	nths Er ch 31,	nded
	2021		2020
Beginning Balance	\$ (29)	\$	(51)
Net losses for the period included in earnings	(67)		(10)
Settlements	4		_
Ending Balance	\$ (92)	\$	(61)
Change in unrealized losses included in earnings relating to Level 3 derivatives still held at the end of the period	\$ (67)	\$	(10)

Note 9—Related Party Transactions

See Note 17 to our Consolidated Financial Statements included in Part IV of our 2020 Annual Report on Form 10-K for a complete discussion of related parties, including the determination of our related parties and nature of involvement with such related parties.

During the three months ended March 31, 2021 and 2020, we recognized sales and transportation revenues, purchased petroleum products and utilized transportation and storage services from our related parties. These transactions were conducted at posted tariff rates or prices that we believe approximate market.

The impact to our Condensed Consolidated Statements of Operations from these transactions is included below (in millions):

	Thr		nths End ch 31,	led
	2021			2020
Revenues from related parties (1)	\$	7	\$	23
Purchases and related costs from related parties (1)	\$	90	\$	129

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.

Our receivable and payable amounts with these related parties as reflected on our Condensed Consolidated Balance Sheets were as follows (in millions):

	March 31, 2021	Dec	ember 31, 2020
Trade accounts receivable and other receivables, net from related parties (1)	\$ 25	\$	34
Trade accounts payable to related parties (1)(2)	\$ 79	\$	88

Includes amounts related to crude oil purchases and sales, transportation and storage services and amounts owed to us or advanced to us related to investment capital projects of equity method investees where we serve as construction manager.

We have agreements to store crude oil at facilities and transport crude oil or utilize capacity on pipelines that are owned by equity method investees. A portion of our commitment to transport is supported by crude oil buy/sell or other agreements with third parties with commensurate quantities.

Note 10—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. In connection with determining the probability of loss associated with such legal proceedings and whether any potential losses associated therewith are estimable, we take into account what we believe to be all relevant known facts and circumstances, and what we believe to be reasonable assumptions regarding the application of those facts and circumstances to existing agreements, laws and regulations. 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.

Accordingly, we can provide no assurance that the outcome of the various legal proceedings that we are currently involved in, or will become involved with in the future, will not, individually or in the aggregate, have a material adverse effect on our consolidated financial condition, results of operations or cash flows.

Environmental — General

Although we have made significant investments in our maintenance and integrity programs, 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 we believe are 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 March 31, 2021, our estimated undiscounted reserve for environmental liabilities (including liabilities related to the Line 901 incident, as discussed further below) totaled \$160 million, of which \$114 million was classified as short-term and \$46 million was classified as long-term. At December 31, 2020, our estimated undiscounted reserve for environmental liabilities (including liabilities related to the Line 901 incident) totaled \$141 million, of which \$94 million was classified as short-term and \$47 million was classified as long-term. Such short-term liabilities are reflected in "Trade accounts payable" and "Other current liabilities" and long-term liabilities are reflected in "Other long-term liabilities and deferred credits" on our Condensed Consolidated Balance Sheets. At March 31, 2021, we had recorded receivables totaling \$114 million for amounts probable of recovery under insurance and from third parties under indemnification agreements, of which \$113 million was classified as short-term and \$1 million was classified as long-term. At December 31, 2020, we had recorded \$97 million of such receivables, of which \$96 million was classified as short-term and \$1 million was classified as long-term. Such short- and long-term receivables are reflected in "Trade accounts receivable and other receivables, net" and "Other long-term assets, net," respectively, on our Condensed Consolidated Balance Sheets.

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 State of California Department of Fish and Wildlife ("CDFW"), 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, and as set forth in the Consent Decree described below, 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, the majority of which have been resolved. Set forth below is a brief summary of actions and matters that are currently pending or recently resolved:

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. In this regard, following the Line 901 incident, we entered into a cooperative Natural Resource Damage Assessment ("NRDA") process with the federal and state agencies designated or authorized by law to act as trustees for the natural resources of the United States and the State of California (collectively, the "Trustees"). Additionally, various government agencies sought to collect civil fines and penalties under applicable state and federal regulations. On March 13, 2020, the United States and the People of the State of California filed a civil complaint against Plains All American Pipeline, L.P. and Plains Pipeline L.P. along with a pre-negotiated settlement agreement in the form of a Consent Decree (the "Consent Decree") that was signed by the United States Department of Justice, Environmental and Natural Resources Division, the United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration, the EPA, CDFW, the California Department of Parks and Recreation, the California State Lands Commission, the California Department of Forestry and Fire Protection's Office of the State Fire Marshal, Central Coast Regional Water Quality Control Board, and Regents of the University of California. The Consent Decree was approved and entered by the Federal District Court for the Central District of California on October 14, 2020. Pursuant to the terms of the Consent Decree, Plains paid \$24 million in civil penalties and \$22.325 million as compensation for injuries to, destruction of, loss of, or loss of use of natural resources resulting from the Line 901 incident. The Consent Decree also contains requirements for implementing certain agreed-upon injunctive relief, as well as requirements for potentially restarting Line 901 and the Sisquoc to Pentland portion of Line 903. The Consent Decree resolved all regulatory claims related to the i

Following an investigation and grand jury proceedings, in May of 2016, PAA was 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. Fifteen charges from the May 2016 Indictment were the subject of a jury trial in California Superior Court in Santa Barbara County, and 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 remaining counts were subsequently dismissed by the Court. On April 25, 2019, PAA was sentenced to pay fines and penalties in the aggregate amount of just under \$3.35 million for the convictions covered by the September 2018 jury verdict (the "2019 Sentence"). The fines and penalties imposed in connection with the 2019 Sentence have been paid. The only pending matter relating to these proceedings is that the Superior Court indicated that it would conduct further hearings in 2021 on the issue of whether there were any "direct victims" of the spill that are entitled to restitution under applicable law.

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 received a number of claims through the claims line and we have processed those claims and made payments as appropriate. Nine class action lawsuits were filed against us; however, after various claims were either dismissed or consolidated, two proceedings remain pending in the United States District Court for the Central District of California. In the first proceeding, the plaintiffs claim two different classes of claimants were damaged by the release: (i) commercial fishermen who landed fish in certain specified fishing blocks in the waters off the coast of Southern California or persons or businesses who resold commercial seafood caught in those areas; and (ii) owners and lessees of residential beachfront properties, or properties with a private easement to a beach, where plaintiffs claim oil from the spill washed up. We are vigorously defending against those claims. A September 2020 trial date initially set by the Court has been postponed indefinitely due to COVID-19 related trial suspensions. In the second proceeding, the plaintiffs seek a declaratory judgment that Plains' right-of-way agreements would not allow Plains to lay a new pipeline to replace Line 901 and/or the non-operating segment of Line 903 without paying additional compensation. No trial date has been set in that action.

In addition, four unitholder derivative lawsuits were filed by certain purported investors in the Partnership against PAGP and certain of the Partnership's affiliates, officers and directors. After various claims were either dismissed or consolidated, one proceeding against PAGP remains pending in Delaware Chancery Court. Generally, the plaintiffs claim that PAGP failed to exercise proper oversight over the Partnership's pipeline integrity efforts. We will vigorously defend the claim. No trial date has been set in this action.

We have also received several other individual lawsuits and claims from companies, governmental agencies and individuals alleging damages arising out of the Line 901 incident. These lawsuits and claims generally seek restitution, compensatory and punitive damages, and/or injunctive relief. The majority of these lawsuits have been settled or dismissed by the court. Remaining claims include claims for lost revenue or profit asserted by a former oil producer that declared bankruptcy and shut in its offshore production platform following the Line 901 incident, a state agency that received royalties on oil produced from that platform until it was abandoned by its owner, and various companies and individuals who provided labor, goods, or services associated with oil production activities they claim were disrupted following the Line 901 incident. We are vigorously defending these suits. We may be subject to additional claims and lawsuits, which could materially impact the liabilities and costs we currently expect to incur as a result of the Line 901 incident.

Taking the foregoing into account, as of March 31, 2021, we estimate that the aggregate total costs we have incurred or will incur with respect to the Line 901 incident will be approximately \$485 million, which estimate includes actual and projected emergency response and clean-up costs, natural resource damage assessments, fines and penalties payable pursuant to the Consent Decree and certain third party claims settlements, as well as estimates for certain legal fees. We accrue such estimates of aggregate total costs to "Field operating costs" in our Condensed Consolidated Statements 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 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 and (ii) 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 and claims 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. 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 March 31, 2021, we had a remaining undiscounted gross liability of \$105 million related to this event, which is reflected in "Trade accounts payable" and "Other current liabilities" on our Condensed Consolidated Balance Sheet. 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 March 31, 2021, we had collected, subject to customary reservations, \$250 million out of the approximate \$360 million of release costs that we believe are probable of recovery from insurance carriers, net of deductibles. Therefore, as of March 31, 2021, we have recognized a receivable of approximately \$110 million for the portion of the release costs that we believe is probable of recovery from insurance, net of deductibles and amounts already collected. Such amount is recognized as a current asset in "Trade accounts receivable and other receivables, net" on our Condensed Consolidated Balance Sheet. 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 legal, professional and regulatory costs during future periods.

Note 11—Operating Segments

We manage our operations through three operating segments: Transportation, Facilities and Supply and Logistics. See Note 3 to our Consolidated Financial Statements included in Part IV of our 2020 Annual Report on Form 10-K 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 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):

	Transportation		Facilities	Supply and Logistics	Intersegment Adjustment	Total
Three Months Ended March 31, 2021						
Revenues:						
External customers (1)	\$	234	\$ 163	\$ 8,083	\$ (97)	\$ 8,383
Intersegment (2)		253	108		97	458
Total revenues of reportable segments	\$	487	\$ 271	\$ 8,083	\$ 	\$ 8,841
Equity earnings in unconsolidated entities	\$	86	\$ 2	\$ 		\$ 88
Segment Adjusted EBITDA	\$	388	\$ 171	\$ (13)		\$ 546
Maintenance capital	\$	26	\$ 6	\$ 3		\$ 35
Three Months Ended March 31, 2020						
Revenues:						
External customers (1)	\$	297	\$ 175	\$ 7,907	\$ (110)	\$ 8,269
Intersegment (2)		282	138	1	110	531
Total revenues of reportable segments	\$	579	\$ 313	\$ 7,908	\$ 	\$ 8,800
Equity earnings in unconsolidated entities	\$	108	\$ 2	\$ 	_	\$ 110
Segment Adjusted EBITDA	\$	442	\$ 210	\$ 141		\$ 793
Maintenance capital	\$	34	\$ 14	\$ 3		\$ 51

Transportation revenues from External customers include tariff revenue from transporting volumes associated with 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 to our Consolidated Financial Statements included in Part IV of our 2020 Annual Report on Form 10-K for a discussion of our related accounting policy. We have included an estimate of the revenues from these inventory exchanges in our Transportation segment revenues from External customers presented above and adjusted those revenues out such that Total revenues from External customers reconciles to our Condensed Consolidated Statements of Operations. This presentation is consistent with the information provided to our CODM.

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/(loss) attributable to PAA (in millions):

	Three Months Ended March 31,			
	2021	2020		
Segment Adjusted EBITDA	\$ 546	\$ 793		
Adjustments: (1)				
Depreciation and amortization of unconsolidated entities (2)	(20)	(17)		
Gains/(losses) from derivative activities and inventory valuation adjustments (3)	198	(30)		
Long-term inventory costing adjustments (4)	41	(115)		
Deficiencies under minimum volume commitments, net (5)	32	2		
Equity-indexed compensation expense (6)	(5)	(4)		
Net gain on foreign currency revaluation ⁽⁷⁾	1	13		
Significant acquisition-related expenses (8)	_	(3)		
Depreciation and amortization	(177)	(168)		
Gains/(losses) on asset sales and asset impairments, net	(2)	(619)		
Goodwill impairment losses	_	(2,515)		
Gain on/(impairment of) investments in unconsolidated entities, net	_	(22)		
Interest expense, net	(107)	(108)		
Other expense, net	(60)	(31)		
Income/(loss) before tax	447	(2,824)		
Income tax expense	(24)	(21)		
Net income/(loss)	423	(2,845)		
Net income attributable to noncontrolling interests	(1)	(2)		
Net income/(loss) attributable to PAA	\$ 422	\$ (2,847)		

⁽¹⁾ Represents adjustments utilized by our CODM in the evaluation of segment results.

⁽²⁾ Includes our proportionate share of the depreciation and amortization of unconsolidated entities.

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 differences in the timing of earnings from the derivative instruments and the underlying transactions and exclude the related gains and losses in determining Segment Adjusted EBITDA such that the earnings from the derivative instruments and the underlying transactions impact Segment Adjusted EBITDA in the same period. In addition, we exclude gains and losses on derivatives that are related to investing activities, such as the purchase of linefill.

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 write-downs of such inventory that result from price declines from Segment Adjusted EBITDA.

- We, and certain of our equity method investments, 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.
- Our total equity-indexed compensation expense includes expense associated with awards that will be settled in units and awards that will be settled in cash. The awards that will be settled in our diluted net income per unit calculation when the applicable performance criteria have been met. We exclude compensation expense associated with these awards in determining Segment Adjusted EBITDA as the dilutive impact of the outstanding awards is included in our diluted net income per unit calculation, as applicable. The portion of compensation expense associated with awards that will settle in cash is not excluded in determining Segment Adjusted EBITDA. See Note 18 to our Consolidated Financial Statements included in Part IV of our 2020 Annual Report on Form 10-K for a discussion regarding our equity-indexed compensation plans.
- During the periods presented, there were fluctuations in the value of CAD to USD, resulting in the realization of foreign exchange gains and losses on the settlement of foreign currency transactions as well as the revaluation of monetary assets and liabilities denominated in a foreign currency. These gains and losses are not integral to our core operating performance and were therefore excluded in determining Segment Adjusted EBITDA. See Note 8 for discussion regarding our currency exchange rate risk hedging activities.
- Includes acquisition-related expenses associated with the Felix Midstream LLC acquisition. See Note 7 to our Consolidated Financial Statements included in Part IV of our 2020 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 2020 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
- Results of Operations
- Liquidity and Capital Resources
- Off-Balance Sheet Arrangements
- Recent Accounting Pronouncements
- · Critical Accounting Policies and Estimates
- Forward-Looking Statements

Executive Summary

Company Overview

Our business model integrates large-scale supply aggregation capabilities with the ownership and operation of critical midstream infrastructure systems that connect major producing regions to key demand centers and export terminals. As one of the largest midstream service providers in North America, we own an extensive network of pipeline transportation, terminalling, storage and gathering assets in key crude oil and NGL producing basins (including the Permian Basin) and transportation corridors and at major market hubs in the United States and Canada. Our assets and the services we provide are primarily focused on crude oil, NGL and natural gas. Our business activities are conducted 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 three months of 2021, we recognized net income of \$423 million as compared to a net loss of \$2.845 billion recognized during the first three months of 2020.

The net loss for the 2020 period was primarily driven by goodwill impairment losses of \$2.515 billion and was also impacted by non-cash impairment charges of approximately \$655 million related to the write-down of certain pipeline and other long-lived assets, certain of our investments in unconsolidated entities, and assets upon classification as held for sale. In addition, we recognized approximately \$232 million of inventory valuation adjustments due to declines in commodity prices primarily during the first quarter of 2020.

Our results for the comparative periods were also driven by:

• More favorable results from our Supply and Logistics segment in the current period due to the impact of the mark-to-market of certain derivative instruments and inventory valuation adjustments, long-term inventory costing adjustments and decreased field operating costs, partially offset by less favorable crude oil market conditions and volumes due to decreased production related to the COVID-19 pandemic and lower realized NGL margins;

- Less favorable results from our Transportation segment in the current period due to the impact of lower volumes driven by the COVID-19 pandemic-related reset to North American production, compounded by production shut-ins from the extreme winter weather event that occurred in February of 2021 ("Winter Storm Uri"), which was partially offset by the recognition of revenue associated with minimum volume commitments and lower power costs, including the impact of gains related to hedged power costs resulting from Winter Storm Uri;
- Less favorable results from our Facilities segment in the current period due to the impact of the sale of assets in 2020 and a benefit in the 2020 comparative period from the receipt of a deficiency payment, partially offset by increased margins from our natural gas storage operations due to favorable impacts from hub activities related to Winter Storm Uri and lower field operating costs;
- A loss of \$67 million in the current period from the mark-to-market of our Preferred Distribution Rate Reset Option compared to a gain of \$26 million in the 2020 period recognized in "Other expense, net," partially offset by favorable foreign currency impacts of \$7 million in the current period compared to unfavorable foreign currency impacts of \$59 million in the 2020 period; and
- A gain of \$21 million recognized in the 2020 period related to the sale of a portion of our interest in Saddlehorn Pipeline Company, LLC in February 2020.

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 \$85 million in midstream infrastructure projects during the three months ended March 31, 2021, which primarily related to projects under development in the Permian Basin.

We paid cash distributions of approximately \$130 million to our common unitholders and approximately \$37 million to our Series A preferred unitholders during the three months ended March 31, 2021.

Results of Operations

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

	Three Months Ended March 31,				Variance		
		2021		2020		\$	%
Transportation Segment Adjusted EBITDA (1)	\$	388	\$	442	\$	(54)	(12)%
Facilities Segment Adjusted EBITDA (1)		171		210		(39)	(19)%
Supply and Logistics Segment Adjusted EBITDA (1)		(13)		141		(154)	(109)%
Adjustments:							
Depreciation and amortization of unconsolidated entities		(20)		(17)		(3)	(18)%
Selected items impacting comparability - Segment Adjusted EBITDA		267		(137)		404	**
Depreciation and amortization		(177)		(168)		(9)	(5)%
Gains/(losses) on asset sales and asset impairments, net		(2)		(619)		617	100 %
Goodwill impairment losses		_		(2,515)		2,515	100 %
Gain on/(impairment of) investments in unconsolidated entities, net		_		(22)		22	100 %
Interest expense, net		(107)		(108)		1	1 %
Other expense, net		(60)		(31)		(29)	(94)%
Income tax expense		(24)		(21)		(3)	(14)%
Net income/(loss)		423		(2,845)		3,268	115 %
Net income attributable to noncontrolling interests		(1)		(2)		1	50 %
Net income/(loss) attributable to PAA	\$	422	\$	(2,847)	\$	3,269	115 %
` '					_		
Basic and diluted net income/(loss) per common unit	\$	0.51	\$	(3.98)	\$	4.49	**
Basic and diluted weighted average common units outstanding		722		728		(6)	**

^{**} Indicates that variance as a percentage is not meaningful.

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 11 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 and to assess the amount of cash that is available for distributions, debt repayments, common equity repurchases and other general partnership purposes.

The primary additional measures used by management are earnings before interest, taxes, depreciation and amortization (including our proportionate share of depreciation and amortization of unconsolidated entities), gains and losses on asset sales and asset impairments, goodwill impairment losses and gains on and impairments of investments in unconsolidated entities, adjusted for certain selected items impacting comparability ("Adjusted EBITDA"), Implied distributable cash flow ("DCF"), Free Cash Flow and Free Cash Flow after Distributions.

Our definition and calculation of certain non-GAAP financial measures may not be comparable to similarly-titled measures of other companies. Adjusted EBITDA and Implied DCF are reconciled to Net Income/(Loss), and Free Cash Flow and Free Cash Flow after Distributions are reconciled to Net Cash Provided by Operating Activities, the most directly comparable measures as reported in accordance with GAAP, and should be viewed in addition to, and not in lieu of, our Condensed Consolidated Financial Statements and accompanying notes. See "—Liquidity and Capital Resources—Liquidity Measures" for additional information regarding Free Cash Flow and Free Cash Flow after Distributions.

Performance Measures

Management believes that the presentation of Adjusted EBITDA and Implied DCF provides useful information to investors regarding our performance and results of operations because these measures, when used to supplement related GAAP financial measures, (i) provide additional information about our core operating performance and ability to fund distributions to our unitholders through cash generated by our operations, (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. These non-GAAP measures may exclude, for example, (i) charges for obligations that are expected to be settled with the issuance of equity instruments, (ii) 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, (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. These measures 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-rec

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, divestitures, investment capital projects and numerous other factors as discussed, as applicable, in "—Analysis of Operating Segments."

The following table sets forth the reconciliation of the non-GAAP financial performance measures Adjusted EBITDA and Implied DCF from Net Income/(Loss) (in millions):

	Three Months Ended March 31,			Variance			
		2021		2020		\$	%
Net income/(loss)	\$	423	\$	(2,845)	\$	3,268	115 %
Add/(Subtract):							
Interest expense, net		107		108		(1)	(1)%
Income tax expense		24		21		3	14 %
Depreciation and amortization		177		168		9	5 %
(Gains)/losses on asset sales and asset impairments, net		2		619		(617)	(100)%
Goodwill impairment losses		_		2,515		(2,515)	(100)%
(Gain on)/impairment of investments in unconsolidated entities, net		_		22		(22)	(100)%
Depreciation and amortization of unconsolidated entities (1)		20		17		3	18 %
Selected Items Impacting Comparability:							
(Gains)/losses from derivative activities and inventory valuation adjustments		(198)		30		(228)	**
Long-term inventory costing adjustments		(41)		115		(156)	**
Deficiencies under minimum volume commitments, net		(32)		(2)		(30)	**
Equity-indexed compensation expense		5		4		1	**
Net gain on foreign currency revaluation		(1)		(13)		12	**
Significant acquisition-related expenses				3		(3)	**
Selected Items Impacting Comparability - Segment Adjusted EBITDA (2)		(267)		137		(404)	**
(Gains)/losses from derivative activities (3)		67		(26)		93	**
Net (gain)/loss on foreign currency revaluation (4)		(7)		59		(66)	**
Selected Items Impacting Comparability - Adjusted EBITDA (5)		(207)		170		(377)	**
Adjusted EBITDA (5)	\$	546	\$	795	\$	(249)	(31)%
Interest expense, net of certain non-cash items (6)		(101)		(103)		2	2 %
Maintenance capital (7)		(35)		(51)		16	31 %
Current income tax expense		(1)		(6)		5	83 %
Distributions from unconsolidated entities in excess of/(less than) adjusted equity earnings (8)		5		(2)		7	**
Distributions to noncontrolling interests (9)		(6)		_		(6)	N/A
Implied DCF	\$	408	\$	633	\$	(225)	(36)%
Preferred unit distributions ⁽⁹⁾		(37)		(37)			— %
Implied DCF Available to Common Unitholders	\$	371	\$	596	\$	(225)	(38)%
Common unit cash distributions (9)		(130)		(262)			
Implied DCF Excess (10)	\$	241	\$	334			

^{**} Indicates that variance as a percentage is not meaningful.

We exclude our proportionate share of the depreciation and amortization expense of such unconsolidated entities when reviewing Adjusted EBITDA, similar to our consolidated assets.

For a more detailed discussion of these selected items impacting comparability, see the footnotes to the Segment Adjusted EBITDA Reconciliation table in Note 11 to our Condensed Consolidated Financial Statements.

Table of Contents

- The Preferred Distribution Rate Reset Option of our Series A preferred units is accounted for as an embedded derivative and recorded at fair value in our Condensed Consolidated Financial Statements. The associated gains and losses are not integral to our results and were thus classified as a selected item impacting comparability. See Note 8 to our Condensed Consolidated Financial Statements for additional information regarding the Preferred Distribution Rate Reset Option.
- During the periods presented, there were fluctuations in the value of the Canadian dollar ("CAD") to the U.S. dollar ("USD"), resulting in the realization of foreign exchange gains and losses on the settlement of foreign currency transactions as well as the revaluation of monetary assets and liabilities denominated in a foreign currency. The associated gains and losses are not integral to our results and were thus classified as a selected item impacting comparability.
- Other expense, net per our Condensed Consolidated Statements of Operations, adjusted for selected items impacting comparability ("Adjusted Other income/(expense), net") is included in Adjusted EBITDA and excluded from Segment Adjusted EBITDA.
- (6) Excludes certain non-cash items impacting interest expense such as amortization of debt issuance costs and terminated interest rate swaps.
- (7) Maintenance capital expenditures are defined as 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.
- (8) Comprised of cash distributions received from unconsolidated entities less equity earnings in unconsolidated entities (adjusted for our proportionate share of depreciation and amortization).
- (9) Cash distributions paid during the period presented.
- (10) Excess DCF is retained to establish reserves for future distributions, capital expenditures and other partnership purposes.

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 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 11 to our Condensed Consolidated Financial Statements for a reconciliation of Segment Adjusted EBITDA to Net income/(loss) attributable to PAA.

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 and trucks. The Transportation segment generates revenue through a combination of tariffs, pipeline capacity agreements and other transportation fees. 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.

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

Operating Results (1)	Three Months Ended March 31,						iance
(in millions, except per barrel data)		2021		2020		\$	%
Revenues	\$	487	\$	579	\$	(92)	(16)%
Purchases and related costs		(46)		(79)		33	42 %
Field operating costs		(105)		(162)		57	35 %
Segment general and administrative expenses (2)		(26)		(28)		2	7 %
Equity earnings in unconsolidated entities		86		108		(22)	(20)%
Adjustments: (3)							
Depreciation and amortization of unconsolidated entities		19		17		2	12 %
Losses from derivative activities and inventory valuation adjustments		_		6		(6)	**
Deficiencies under minimum volume commitments, net		(30)		(4)		(26)	**
Equity-indexed compensation expense		3		2		1	**
Significant acquisition-related expenses		_		3		(3)	**
Segment Adjusted EBITDA	\$	388	\$	442	\$	(54)	(12)%
Maintenance capital	\$	26	\$	34	\$	(8)	(24)%
Segment Adjusted EBITDA per barrel	\$	0.76	\$	0.67	\$	0.09	13 %

Average Daily Volumes	Three Mont March		Vari	ance
(in thousands of barrels per day) ⁽⁴⁾	2021	2020	Volumes	%
Tariff activities volumes				
Crude oil pipelines (by region):				
Permian Basin ⁽⁵⁾	3,753	5,165	(1,412)	(27)%
South Texas / Eagle Ford ⁽⁵⁾	320	458	(138)	(30)%
Central (5)	373	404	(31)	(8)%
Gulf Coast	145	144	1	1 %
Rocky Mountain (5)	287	273	14	5 %
Western	237	203	34	17 %
Canada	315	327	(12)	(4)%
Crude oil pipelines	5,430	6,974	(1,544)	(22)%
NGL pipelines	183	187	(4)	(2)%
Tariff activities total volumes	5,613	7,161	(1,548)	(22)%
Trucking volumes	68	94	(26)	(28)%
Transportation segment total volumes	5,681	7,255	(1,574)	(22)%

 $^{^{\}ast\ast}$ Indicates that variance as a percentage is not meaningful.

- (1) Revenues and costs and expenses include intersegment amounts.
- 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 11 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.

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:

	Three Months Ended March 31, 2021-2020							
(in millions)		Revenues	Purchases and Related Costs			Equity Earnings		
Permian Basin region	\$	(53)	\$	23	\$	(6)		
South Texas / Eagle Ford region		(7)		_		(9)		
Rocky Mountain region		4		_		(6)		
Other regions, NGL pipelines, trucking and pipeline loss allowance revenue		(36)		10		(1)		
Total variance	\$	(92)	\$	33	\$	(22)		

Favorable/(Unfavorable) Variance

- *Permian Basin region*. Revenues, net of purchases and related costs, ("net revenues") and equity earnings decreased by \$30 million and \$6 million, respectively, for the three months ended March 31, 2021 compared to the same period in 2020 primarily due to lower volumes of crude oil produced in the Permian Basin, driven by the COVID-19 pandemic-related reset to production and compounded by shut-ins from Winter Storm Uri. Such unfavorable impacts were partially offset by the recognition of revenue associated with minimum volume commitments and further for our pipelines reported as equity earnings, lower power costs from Winter Storm Uri. The recognition of previously deferred revenue associated with minimum volume commitments is reflected as an "Adjustment" in the table above as discussed further below under "—*Adjustments: Deficiencies under minimum volume commitments, net.*"
- South Texas / Eagle Ford region. Revenues decreased for the three months ended March 31, 2021 compared to the same period in 2020 due to lower production, including curtailments from Winter Storm Uri.
 - Equity earnings from our 50% interest in Eagle Ford Pipeline LLC decreased for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 due to a combination of lower joint tariff volumes from the Permian Basin via our Cactus I pipeline, and to a lesser extent, lower regional receipts, partially offset by the recognition of previously deferred revenue associated with minimum volume commitments. The recognition of such revenue is reflected as an "Adjustment" in the table above as discussed further below under "— Adjustments: Deficiencies under minimum volume commitments, net."
- *Rocky Mountain region*. Equity earnings decreased for the three months ended March 31, 2021 compared to the same period in 2020 primarily due to the absence of higher-tariff volume commitments in the current period on the White Cliffs pipeline.

• Other regions, NGL pipelines, trucking and pipeline loss allowance revenue. The decrease in other revenues, net of purchases and related costs, for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 was primarily due to lower pipeline loss allowance revenue in 2021 primarily due to lower volumes. Additionally, certain of our Canadian crude oil pipelines and related system assets were unfavorably impacted by a decrease in intersegment fees to reflect lower utilization and market rates, which had an offsetting favorable impact on our Supply and Logistics segment.

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 agreed to either: (i) ship and pay for certain stated volumes or (ii) pay the agreed upon price for a minimum contract quantity. Some of these agreements include make-up rights if the minimum volume is not met. If a counterparty has a make-up right associated with a deficiency, we bill the counterparty and defer the revenue attributable to the counterparty's make-up right but record an adjustment to reflect such amount associated with the current period activity in Segment Adjusted EBITDA. We subsequently recognize the revenue, and record a corresponding reversal of the adjustment, 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.

For the three months ended March 31, 2021 and 2020, the recognition of previously deferred revenue exceeded amounts billed to counterparties associated with deficiencies under minimum volume commitments.

Field Operating Costs. The decrease in field operating costs for the three months ended March 31, 2021 compared to the same period in 2020 was primarily due to (i) lower power costs, including the impact of gains related to hedged power costs resulting from Winter Storm Uri and (ii) streamlining efforts which have resulted in decreases in variable costs and maintenance and integrity management costs.

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 decrease in maintenance capital spending for the three months ended March 31, 2021 compared to the same period in 2020 was primarily due to timing changes, the completion of multi-year reliability improvement programs and application of updated regulatory guidance, among other factors.

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.

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

Operating Results (1)	Three Months Ended March 31,				Var	riance
(in millions, except per barrel data)		2021		2020	\$	%
Revenues	\$	271	\$	313	\$ (42)	(13)%
Purchases and related costs		(4)		(2)	(2)	(100)%
Field operating costs		(77)		(88)	11	13 %
Segment general and administrative expenses (2)		(20)		(19)	(1)	(5)%
Equity earnings in unconsolidated entities		2		2	_	— %
Adjustments: (3)						
Depreciation and amortization of unconsolidated entities		1			1	**
(Gains)/losses from derivative activities		(1)		1	(2)	**
Deficiencies under minimum volume commitments, net		(2)		2	(4)	**
Equity-indexed compensation expense		1		1	_	**
Segment Adjusted EBITDA	\$	171	\$	210	\$ (39)	(19)%
Maintenance capital	\$	6	\$	14	\$ (8)	(57)%
Segment Adjusted EBITDA per barrel	\$	0.49	\$	0.55	\$ (0.06)	(11)%

	Three Mon Marcl		Var	iance
Volumes (4)	2021	2020	Volumes	%
Liquids storage (average monthly capacity in millions of barrels) (5)	100	111	(11)	(10)%
Natural gas storage (average monthly working capacity in billions of cubic feet)	68	63	5	8 %
NGL fractionation (average volumes in thousands of barrels per day)	144	154	(10)	(6)%
Facilities segment total volumes (average monthly volumes in millions of barrels) (6)	115	127	(12)	(9)%

^{**} Indicates that variance as a percentage is not meaningful.

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

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 11 to our Condensed Consolidated Financial Statements for additional discussion of such adjustments.

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

⁽⁵⁾ Includes volumes (attributable to our interest) from facilities owned by unconsolidated entities.

Facilities segment total volumes are 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.

Revenues, Purchases and Related Costs and Volumes. Variances in revenues and average monthly volumes were primarily driven by the following:

- NGL Operations. Revenues from our NGL operations decreased by \$41 million for the three months ended March 31, 2021 compared to the same period in 2020 primarily due to (i) lower intersegment facility fee revenues due to rate decreases at certain of our storage, fractionation and processing facilities to reflect lower utilization and market rates, which had an offsetting favorable impact on our Supply and Logistics segment, (ii) a benefit in the 2020 comparative period from the receipt of a deficiency payment of approximately \$20 million upon the expiration of a multi-year contract and (iii) the sale of certain NGL terminals in the second quarter of 2020. Such unfavorable impacts were partially offset by gains at certain of our fractionation facilities and favorable foreign exchange impacts of approximately \$6 million.
- *Crude Oil Storage*. Revenues from our crude oil storage operations decreased by \$15 million for the three months ended March 31, 2021 compared to three months ended March 31, 2020 primarily due to the sale of our Los Angeles Basin terminals in October of 2020.
- *Natural Gas Storage*. Revenues, net of purchases and related costs, from our natural gas storage operations increased by \$17 million for the three months ended March 31, 2021 compared to the same period in 2020 primarily due to increased margins from hub activities related to Winter Storm Uri.

Field Operating Costs. The decrease in field operating costs for the three months ended March 31, 2021 compared to the same period in 2020 was primarily due to (i) the sale of our Los Angeles Basin terminals and certain NGL terminals, (ii) streamlining efforts which have resulted in decreases in variable costs and maintenance and integrity management costs and (iii) reduced activity at our rail terminals.

Maintenance Capital. The decrease in maintenance capital spending for the three months ended March 31, 2021 compared to the same period in 2020 was primarily due to timing changes, the impact of asset sales, the completion of multi-year reliability improvement programs and application of updated regulatory guidance, among other factors.

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, including regional differentials, 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.

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

Operating Results (1)	Three Months Ended March 31,				Variance				
(in millions, except per barrel data)		2021		2020		\$	%		
Revenues	\$	8,083	\$	7,908	\$	175	2 %		
Purchases and related costs		(7,796)		(7,813)		17	— %		
Field operating costs		(41)		(58)		17	29 %		
Segment general and administrative expenses (2)		(21)		(22)		1	5 %		
Adjustments: (3)									
(Gains)/losses from derivative activities and inventory valuation adjustments		(197)		23		(220)	**		
Long-term inventory costing adjustments		(41)		115		(156)	**		
Equity-indexed compensation expense		1		1		_	**		
Net gain on foreign currency revaluation		(1)		(13)		12	**		
Segment Adjusted EBITDA	\$	(13)	\$	141	\$	(154)	(109)%		
Maintenance capital	\$	3	\$	3	\$		— %		
Segment Adjusted EBITDA per barrel	\$	(0.11)	\$	1.00	\$	(1.11)	(111)%		

Average Daily Volumes (4)	Three Mon Marc		Var	iance
(in thousands of barrels per day)	2021	2020	Volumes	%
Crude oil lease gathering purchases	1,174	1,318	(144)	(11)%
NGL sales	220	220	_	— %
Supply and Logistics segment total volumes	1,394	1,538	(144)	(9)%

^{**} Indicates that variance as a percentage is not meaningful.

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

	Crude (X W 11 Oil Price	
	 Low		High
Three Months Ended March 31, 2021	\$ 48	\$	66
Three Months Ended March 31, 2020	\$ 14	\$	63

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⁽¹⁾ Revenues and costs include intersegment amounts.

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 11 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.

Our crude oil and NGL supply, logistics and distribution operations are not directly affected by the absolute level of prices. 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. Additionally, net revenues are impacted by net gains and losses from certain derivative activities and inventory valuation and costing adjustments.

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.

Segment Adjusted EBITDA and Volumes. The following summarizes the significant items impacting our Supply and Logistics Segment Adjusted EBITDA:

- *Crude Oil Operations*. Net revenues from our crude oil operations decreased for the three months ended March 31, 2021 compared to the three months ended March 31, 2020, primarily due to less favorable market conditions and lower volumes as a result of decreased production related to the COVID-19 pandemic.
- *NGL Operations*. Net revenues from our NGL operations decreased for the three months ended March 31, 2021 compared to the three months ended March 31, 2020, primarily due to lower realized margins on our NGL sales activities, partially offset by a decrease in intersegment fees to reflect lower utilization and market rates, which had an offsetting unfavorable impact on our Facilities and Transportation segments.
- Impact from Certain Derivative Activities and 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), losses on derivatives that are related to investing activities (such as the purchase of linefill) and inventory valuation adjustments, as applicable. See Note 8 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 the realization of foreign exchange gains and losses on the settlement of foreign currency transactions as well as the revaluation of monetary assets and liabilities denominated in a foreign currency 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 decrease in field operating costs for the three months ended March 31, 2021 compared to the same period in 2020 was primarily due to lower trucking costs from a combination of decreased production related to the COVID-19 pandemic and more supply connected to pipelines resulting in lower trucking activity in the 2021 period.

Other Income and Expenses

Depreciation and Amortization

Depreciation and amortization expense increased for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 largely driven by a reduction in the useful lives of certain assets. See Note 2 to our Condensed Consolidated Financial Statements for additional information.

Gains/(Losses) on Asset Sales and Asset Impairments, Net

The net loss on asset sales and asset impairments for the three months ended March 31, 2020 was largely driven by (i) non-cash impairment losses of approximately \$446 million related to the write-down of certain pipeline and other long-lived assets due to macroeconomic and geopolitical conditions including the collapse of oil prices driven by both the decrease in demand caused by the COVID-19 pandemic and excess supply, as well as changing market conditions and expected lower crude oil production in certain regions, and (ii) approximately \$167 million of impairment losses recognized on assets upon classification as held for sale during the quarter, which were subsequently sold.

Goodwill Impairment Losses

During the first quarter of 2020, we recognized a goodwill impairment charge of \$2.515 billion, representing the entire balance of goodwill.

Gain on/(Impairment of) Investments in Unconsolidated Entities, Net

During the three months ended March 31, 2020, we recognized losses of \$43 million related to the write-down of certain of our investments in unconsolidated entities. Additionally, during the three months ended March 31, 2020, we recognized a gain of \$21 million related to our sale of a 10% interest in Saddlehorn Pipeline Company, LLC.

Other Expense, Net

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

	Three Months Ended March 31,				
		2021		2020	
Gain/(loss) related to mark-to-market adjustment of our Preferred Distribution Rate Reset Option (1)	\$	(67)	\$	26	
Net gain/(loss) on foreign currency revaluation (2)		7		(59)	
Other		_		2	
	\$	(60)	\$	(31)	

⁽¹⁾ See Note 8 to our Condensed Consolidated Financial Statements for additional information.

Liquidity and Capital Resources

General

Our primary sources of liquidity are (i) cash flow from operating activities and (ii) borrowings under our credit facilities or commercial paper program. In addition, we may supplement these primary sources of liquidity with proceeds from our divestiture program and in the past we have utilized funds received from sales of equity and debt securities. 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) investment and maintenance capital activities, (iii) acquisitions of assets or businesses, (iv) repayment of principal on our long-term debt and (v) distributions to our unitholders. In addition, we may use cash for repurchases of common equity. We generally expect to fund our short-term cash requirements through cash flow generated from operating activities and/or borrowings under our commercial paper program or credit facilities. In addition, we generally expect to fund our long-term needs, such as those resulting from investment capital activities or acquisitions and refinancing our 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.

The activity during the periods presented was primarily related to the impact from the change in the United States dollar to Canadian dollar exchange rate on the portion of our intercompany net investment that is not long-term in nature.

As of March 31, 2021, although we had a working capital deficit of \$254 million, we had approximately \$2.8 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 March 31, 2021
Availability under senior unsecured revolving credit facility (1) (2)	\$ 1,507
Availability under senior secured hedged inventory facility (1)(2)	1,363
Amounts outstanding under commercial paper program	(137)
Subtotal	2,733
Cash and cash equivalents	30
Total	\$ 2,763

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

Usage of our credit facilities, and, in turn, our commercial paper program, is subject to ongoing compliance with covenants. The credit agreements for our revolving credit facilities (which impact our ability to access our commercial paper program because they provide the financial backstop that supports our short-term credit ratings) and our term loans and the indentures governing our senior notes contain cross-default provisions. A default under our credit agreements or indentures would permit the lenders to accelerate the maturity of the outstanding debt. Additionally, lack of compliance with the provisions in our credit agreements may restrict our ability to make distributions of available cash. We were in compliance with the covenants contained in our credit agreements and indentures as of March 31, 2021.

We believe that we have, and will continue to have, the ability to access our 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 liquid assets, cash flow from operating activities and borrowing capacity under our 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, including extended disruptions in the financial markets and/or energy price volatility resulting from current macroeconomic and geopolitical conditions associated with the COVID-19 pandemic and/or actions by Organization of Petroleum Exporting Countries ("OPEC"). A prolonged material decrease in our cash flows would likely produce an adverse effect on our borrowing capacity and cost of borrowing. Our borrowing capacity and borrowing costs are also impacted by our credit rating. See Item 1A. "Risk Factors" included in our 2020 Annual Report on Form 10-K for further discussion regarding risks that may impact our liquidity and capital resources.

Liquidity Measures

Management uses the non-GAAP financial measures Free Cash Flow and Free Cash Flow after Distributions to assess the amount of cash that is available for distributions, debt repayments, common equity repurchases and other general partnership purposes. Free Cash Flow is defined as Net Cash Provided by Operating Activities, less Net Cash Used in Investing Activities, which primarily includes acquisition, investment and maintenance capital expenditures, investments in unconsolidated entities and the impact from the purchase and sale of linefill and base gas, net of proceeds from the sales of assets and further impacted by cash received from or paid to noncontrolling interests. Free Cash Flow is further reduced by cash distributions paid to our preferred and common unitholders to arrive at Free Cash Flow after Distributions.

Available capacity under our senior unsecured revolving credit facility and senior secured hedged inventory facility was reduced by outstanding letters of credit of \$93 million and \$37 million, respectively.

The following table sets forth the reconciliation of the non-GAAP financial liquidity measures Free Cash Flow and Free Cash Flow after Distributions from Net Cash Provided by Operating Activities (in millions):

	Three Months Ended March 31,				
	2021		2020		
Net cash provided by operating activities	\$ 791	\$	890		
Adjustments to reconcile net cash provided by operating activities to free cash flow:					
Net cash used in investing activities	(108)		(610)		
Cash contributions from noncontrolling interests	1		8		
Cash distributions paid to noncontrolling interests (1)	(6)		_		
Free Cash Flow	\$ 678	\$	288		
Cash distributions (2)	 (167)		(299)		
Free Cash Flow after Distributions	\$ 511	\$	(11)		

⁽¹⁾ Cash distributions paid during the period presented.

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 2020 Annual Report on Form 10-K.

Net cash provided by operating activities for the first three months of 2021 and 2020 was \$791 million and \$890 million, 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 three months ended March 31, 2021, our cash provided by operating activities was positively impacted by working capital changes, including decreases in the volume of inventory that we held, primarily due to the sale of crude oil inventory that had been stored during the contango market and the sale of NGL inventory related to demand for heating during the winter season. The net proceeds from the liquidation of such inventory were used to repay borrowings under our commercial paper program and credit facilities.

During the three months ended March 31, 2020, our cash provided by operating activities was positively impacted by decreases in the volume of inventory that we held, primarily due to the sale of NGL and crude oil inventory. The favorable effects from the liquidation of such inventory were partially offset by the timing of revenue recognized during the period for which cash was received in prior periods.

⁽²⁾ Cash distributions paid to our preferred and common unitholders during the period presented.

Investing Activities

Capital Expenditures

In addition to our operating needs, we also use cash for our investment capital projects, maintenance capital activities and acquisition activities. We fund these expenditures with cash generated by operating activities, financing activities and/or proceeds from our divestiture program. In the near term, we do not plan to issue common equity to fund such expenditures. The following table summarizes our investment, maintenance and acquisition capital expenditures (in millions):

	Three Months Ended March 31,				
	 2021		2020		
Investment capital (1)(2)	\$ 85	\$	352		
Maintenance capital (1)	35		51		
Acquisition capital (3)	_		308		
	\$ 120	\$	711		

- Capital expenditures made to expand the existing operating and/or earnings capacity of our assets are classified as "Investment 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."
- (2) Includes contributions to unconsolidated entities, accounted for under the equity method of accounting, related to investment capital projects by such entities.
- (3) Acquisition capital for 2020 primarily includes a crude oil gathering system located in the Delaware Basin.

2021 Investment and Maintenance Capital. Total projected investment capital for the year ended December 31, 2021 is \$375 million, a majority of which will be invested in our fee-based Transportation and Facilities segments. Additionally, maintenance capital for the full year of 2021 is projected to be \$180 million. We expect to fund our 2021 investment and maintenance capital expenditures with retained cash flow and proceeds from assets sold as part of our divestiture program.

Divestitures

We continue to evaluate potential sales of non-core assets and/or sales of partial interests in assets to strategic joint venture partners. We are targeting to complete \$750 million of asset sales for the full year of 2021. The following table summarizes the proceeds received during the first three months of 2021 and 2020 from sales of assets, which were previously reported in our Transportation and Facilities segments (in millions):

		Three Months Ended March 31,			
	_	2021			2020
Proceeds from divestitures	9	\$	21	\$	104

Proceeds from divestitures were used to fund our investment capital projects and reduce debt levels.

Ongoing Activities Related to Strategic Transactions

We are continuously engaged in the evaluation of potential transactions that support our current business strategy. While in the past such transactions have included acquisitions and large capital projects, consistent with our current strategic focus on capital discipline, leverage reduction, portfolio optimization and free cash flow generation, we are currently primarily focused on evaluating whether we should (i) sell assets that we regard as non-core or that we believe might be a better fit with the business and/or assets of a third-party buyer or (ii) sell partial interests in assets to strategic joint venture partners, in each case to optimize our asset portfolio and strengthen our balance sheet and leverage metrics. With respect to a potential divestiture, we may also conduct an auction process or may negotiate a transaction with one or a limited number of potential buyers. Such transactions could involve assets that, if sold or put into a joint venture or joint ownership arrangement, could have a material effect on our financial condition and results of operations.

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 closing or 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 or future efforts with respect to any such transactions will be successful, and we can provide no assurance that our financial expectations with respect to such transactions will ultimately be realized. See Item 1A. "Risk Factors—Risks Related to Our Business—Divestitures, joint ventures, joint ownership arrangements and acquisitions involve risks that may adversely affect our business" included in our 2020 Annual Report on Form 10-K.

Financing Activities

Our financing activities primarily relate to funding investment capital projects, acquisitions and refinancing of our 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.

Borrowings and Repayments Under Credit Arrangements

During the three months ended March 31, 2021, we had net repayments on our credit facilities and commercial paper program of \$576 million. The net repayments resulted primarily from cash flow from operating activities and proceeds from asset sales, which offset borrowings during the period related to funding needs for capital investments, inventory purchases and other general partnership purposes.

During the three months ended March 31, 2020, we had net repayments on our credit facilities and commercial paper program of \$4 million. The net repayments resulted primarily from cash flow from operating activities and proceeds from asset sales, which offset borrowings during the period related to funding needs for capital investments, inventory purchases and other general partnership purposes.

Registration Statements

We periodically access the capital markets for both equity and debt financing. We have filed with the SEC a universal shelf registration statement that, subject to effectiveness at the time of use, allows us to issue, in the aggregate, up to a specified amount of debt or equity securities ("Traditional Shelf"), under which we had approximately \$1.1 billion of unsold securities available at March 31, 2021. We also have access to a universal shelf registration statement ("WKSI Shelf"), which provides us with the ability to offer and sell an unlimited amount of debt and equity securities, subject to market conditions and our capital needs. We did not conduct any offerings under our Traditional Shelf or WKSI Shelf during the three months ended March 31, 2021.

Distributions to Our Unitholders

In accordance with our partnership agreement, after making distributions to holders of our outstanding preferred units, we distribute the remainder of our available cash to our common unitholders of record within 45 days following the end of each quarter. 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. Our levels of financial reserves are established by our general partner and include reserves for the proper conduct of our business (including future capital expenditures and anticipated credit needs), compliance with legal or contractual obligations and funding of future distributions to our Series A and Series B preferred unitholders. Our available cash also includes cash on hand resulting from borrowings made after the end of the quarter. See Item 5. "Market for Registrant's Common Units, Related Unitholder Matters and Issuer Purchases of Equity Securities—Cash Distribution Policy" included in our 2020 Annual Report on Form 10-K for additional discussion regarding distributions.

See Note 7 to our Condensed Consolidated Financial Statements for details of distributions paid during or pertaining to the first three months of 2021.

Contingencies

For a discussion of contingencies that may impact us, see Note 10 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 14 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 March 31, 2021 (in millions):

	Remainder of 2021		2022 2023		2024		2025		2026 and Thereafter		Total	
Long-term debt and related interest payments (1)	\$	305	\$	1,140	\$ 1,662	\$	1,083	\$	1,300	\$	8,337	\$ 13,827
Leases (2)		81		100	77		64		49		298	669
Other obligations (3)		365		517	331		285		272		950	2,720
Subtotal		751		1,757	2,070		1,432		1,621		9,585	17,216
Crude oil, NGL and other purchases (4)		13,590		15,503	14,720		13,874		11,048		43,224	111,959
Total	\$	14,341	\$	17,260	\$ 16,790	\$	15,306	\$	12,669	\$	52,809	\$ 129,175

- Includes debt service payments, interest payments due on senior notes and the commitment fee on assumed available capacity under our credit facilities, as well as long-term borrowings under our credit agreements and commercial paper program, if any. Although there may be short-term borrowings under our credit agreements and 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 credit agreements or commercial paper program) in the amounts above. For additional information regarding our debt obligations, see Note 6 to our Condensed Consolidated Financial Statements.
- Includes both operating and finance leases as defined by FASB guidance. Leases are primarily for (i) railcars, (ii) land, (iii) office space, (iv) storage tanks, (v) tractor trailers and (vi) vehicles. See Note 14 to our Consolidated Financial Statements included in Part IV of our 2020 Annual Report on Form 10-K for additional information.
- Includes (i) other long-term liabilities, (ii) storage, processing and transportation agreements (including certain agreements for which the amount and timing of expected payments is subject to the completion of underlying construction projects), (iii) certain rights-of-way easements and (iv) noncancelable commitments related to our investment capital projects, including projected contributions for our share of the capital spending of our equity method investments. The storage, processing and transportation agreements include approximately \$1.9 billion associated with agreements to store crude oil at facilities and transport crude oil or utilize capacity on pipelines owned by equity method investees at posted tariff rates or prices that we believe approximate market. A portion of our commitment to transport is supported by crude oil buy/sell or other agreements with third parties with commensurate quantities.
- Amounts are primarily based on estimated volumes and market prices based on average activity during March 2021. 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 March 31, 2021 and December 31, 2020, we had outstanding letters of credit of approximately \$130 million and \$129 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 2020 Annual Report on Form 10-K.

Change in Accounting Estimate

In early 2021, we conducted a review to assess the useful lives of our property and equipment. Based on this review, we modified the useful lives of certain of our Pipeline and related facilities and Storage, terminal and rail facilities to useful lives of 10 to 50 years from useful lives of 10 to 70 years to reflect current expectations given our future operating and commercial outlook. This change in accounting estimate was effective January 1, 2021. Based on the net carrying amount of this property and equipment as of January 1, 2021, we currently estimate that these useful life reductions will prospectively increase annual depreciation expense by approximately \$72 million.

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:

- declines in global crude oil demand and crude oil prices (whether due to the COVID-19 pandemic, future pandemics or other factors) that
 correspondingly lead to a significant reduction of North American crude oil, natural gas liquids ("NGL") and natural gas production (whether
 due to reduced producer cash flow to fund drilling activities or the inability of producers to access capital, or both, the unavailability of
 pipeline and/or storage capacity, the shutting-in of production by producers, government-mandated pro-ration orders, or other factors), which
 in turn could result in significant 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 and/or the reduction of commercial opportunities that might otherwise be
 available to us;
- the effects of competition and capacity overbuild in areas where we operate, including contract renewal risk and the risk of loss of business to
 other midstream operators who are willing or under pressure to aggressively reduce transportation rates in order to capture or preserve
 customers;
- negative societal sentiment regarding the hydrocarbon energy industry and the continued development and consumption of hydrocarbons, which could influence consumer preferences and governmental or regulatory actions that adversely impact our business;
- · 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 our credit rating and ability to receive open credit from our suppliers and trade counterparties;
- the occurrence of a natural disaster, catastrophe, terrorist attack (including eco-terrorist attacks) or other event that materially impacts our
 operations, including cyber or other attacks on our electronic and computer systems;
- the availability of, and our ability to consummate, divestitures, joint ventures, acquisitions or other strategic opportunities;
- weather interference with business operations or project construction, including the impact of extreme weather events or conditions;
- the refusal or inability of our customers or counterparties to perform their obligations under their contracts with us (including commercial contracts, asset sale agreements and other agreements), whether justified or not and whether due to financial constraints (such as reduced creditworthiness, liquidity issues or insolvency), market constraints, legal constraints (including governmental orders or guidance), the exercise of contractual or common law rights that allegedly excuse their performance (such as force majeure or similar claims) or other factors;
- our inability to perform our obligations under our contracts, whether due to non-performance by third parties, including our customers or counterparties, market constraints, third-party constraints, legal constraints (including governmental orders or guidance), or other factors;
- the incurrence of costs and expenses related to unexpected or unplanned capital expenditures, third-party claims or other factors;
- the successful operation of joint ventures and joint operating arrangements we enter into from time to time, whether relating to assets operated by us or by third parties, and the successful integration and future performance of acquired assets or businesses;

- failure to implement or capitalize, or delays in implementing or capitalizing, on investment capital projects, whether due to permitting delays, permitting withdrawals or other factors;
- disruptions to futures markets for crude oil, NGL and other petroleum products, which may impair our ability to execute our commercial or hedging strategies;
- shortages or cost increases of supplies, materials or labor;
- the impact of current and future laws, rulings, governmental regulations, trade policies, accounting standards and statements, and related
 interpretations, including legislation or regulatory initiatives that prohibit, restrict or regulate hydraulic fracturing or that prohibit the
 development of oil and gas resources and the related infrastructure on lands dedicated to or served by our pipelines;
- 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, investment capital projects, working capital requirements and the repayment or refinancing of indebtedness:
- inability of producers, who have made commitments to our pipelines, to access capital to fund their drilling and completion activities;
- general economic, market or business conditions in the United States and elsewhere (including the potential for a recession or significant slowdown in economic activity levels and the timing, pace and extent of economic recovery) that impact demand for crude oil, drilling and production activities and therefore the demand for the midstream services we provide and commercial opportunities available to us;
- the amplification of other risks caused by volatile financial markets, capital constraints, liquidity concerns and inflation;
- · the use or availability of third-party assets upon which our operations depend and over which we have little or no control;
- the currency exchange rate of the Canadian dollar to the United States dollar;
- 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;
- significant under-utilization of our assets and facilities;
- increased costs, or lack of availability, of insurance;
- · the effectiveness of our risk management activities;
- · fluctuations in the debt and equity markets, including the price of our units at the time of vesting under our long-term incentive plans;
- risks related to the development and operation of our assets; 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 2020 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 overthe-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 and basis differentials. We manage these exposures with various instruments including 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 futures, swaps and options.

• <u>NGL and other</u>

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 futures, forwards, swaps and options.

See Note 8 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 March 31, 2021 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	\$	(248)	\$ (43)	\$ 44
Natural gas		9	\$ 12	\$ (12)
NGL and other		(131)	\$ (40)	\$ 40
Total fair value	\$	(370)		

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 our senior notes are fixed rate notes and thus are not subject to interest rate risk. Our variable rate debt outstanding at March 31, 2021, approximately \$337 million, was subject to interest rate re-sets that generally range from one day to approximately one month. The average interest rate on variable rate debt that was outstanding during the three months ended March 31, 2021 was 0.8%, based upon rates in effect during such period. The fair value of our interest rate derivatives was a net asset of \$114 million as of March 31, 2021. A 10% increase in the forward LIBOR curve as of March 31, 2021 would have resulted in an increase of \$20 million to the fair value of our interest rate derivatives. A 10% decrease in the forward LIBOR curve as of March 31, 2021 would have resulted in a decrease of \$20 million to the fair value of our interest rate derivatives. See Note 8 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 \$1 million as of March 31, 2021. A 10% increase in the exchange rate (USD-to-CAD) would have resulted in a decrease of \$6 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 \$6 million to the fair value of our foreign currency derivatives. See Note 8 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 our Series A preferred units is an embedded derivative that must be bifurcated from the related host contract, our partnership agreement, and recorded at fair value in our Condensed Consolidated Balance Sheets. The valuation model utilized for this embedded derivative contains inputs including our common unit price, ten-year United States treasury rates, default probabilities and timing estimates to ultimately calculate the fair value of our Series A preferred units with and without the Preferred Distribution Rate Reset Option. The fair value of this embedded derivative was a liability of \$81 million as of March 31, 2021. A 10% increase or decrease in the fair value would have an impact of \$8 million. See Note 8 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 March 31, 2021, 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 first quarter of 2021 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 10 to our Condensed Consolidated Financial Statements, and is incorporated herein by reference thereto.

Item 1A. RISK FACTORS

For a discussion of our risk factors, see Item 1A. of our 2020 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

Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

The following table summarizes our equity repurchase activity during the first quarter of 2021:

	Total Number of Common Units Purchased	Average Pric		Total Number of Common Units Purchased as Part of Publicly Announced Program	Common	mate Dollar Value of Units that May Yet Be I under the Program ⁽²⁾
January 1, 2021 - January 31, 2021	350,000	\$	8.44	350,000	\$	446,761,559

Average price paid per common unit includes costs associated with the repurchases. Trades for these units were executed in late December 2020, but settled in early January 2021.

Item 3. DEFAULTS UPON SENIOR SECURITIES

None.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

In November 2020, the board of directors of PAA GP Holdings LLC approved a \$500 million common equity repurchase program (the "Program"), which authorizes the repurchase from time to time of up to \$500 million of our common units and/or PAGP Class A shares via open market purchases or negotiated transactions conducted in accordance with applicable regulatory requirements. No time limit has been set for completion of the Program, and the Program may be suspended or discontinued at any time. The Program does not obligate us or PAGP to acquire a particular number of common units or PAGP Class A shares. Any common units or Class A shares that are repurchased will be canceled. No PAGP Class A shares were repurchased during the periods presented. The common units repurchased under the Program during the periods presented were cancelled immediately upon acquisition.

Item 5. OTHER INFORMATION

None.

Item 6. EXHIBITS

Exhibit No.		Description
3.1	-	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 our Current Report on Form 8-K filed October 12, 2017).
3.2	_	Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P. dated as of April 1, 2004 (incorporated by reference to Exhibit 3.2 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2004).
3.3	_	Amendment No. 1 dated December 31, 2010 to the Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P. (incorporated by reference to Exhibit 3.9 to our Annual Report on Form 10-K for the year ended December 31, 2010).
3.4	_	Amendment No. 2 dated January 1, 2011 to the Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P. (incorporated by reference to Exhibit 3.10 to our Annual Report on Form 10-K for the year ended December 31, 2010).
3.5	_	Amendment No. 3 dated June 30, 2011 to the Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P. (incorporated by reference to Exhibit 3.7 to our Annual Report on Form 10-K for the year ended December 31, 2013).
3.6	_	Amendment No. 4 dated January 1, 2013 to the Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P (incorporated by reference to Exhibit 3.8 to our Annual Report on Form 10-K for the year ended December 31, 2013).
3.7	_	Amendment No. 5 dated December 1, 2019 to the Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P. (incorporated by reference to Exhibit 3.7 to our Annual Report on Form 10-K for the year ended December, 31, 2019).
3.8	_	<u>Third Amended and Restated Agreement of Limited Partnership of Plains Pipeline, L.P. dated as of April 1, 2004 (incorporated by reference to Exhibit 3.3 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2004).</u>
3.9	_	Amendment No. 1 dated January 1, 2013 to the Third Amended and Restated Agreement of Limited Partnership of Plains <u>Pipeline, L.P. (incorporated by reference to Exhibit 3.10 to our Annual Report on Form 10-K for the year ended December 31, 2013).</u>
3.10	_	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).
3.11	_	<u>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).</u>
3.12	_	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).
3.13	_	Amendment No. 2 dated May 23, 2019 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 May 30, 2019).
3.14	_	Certificate of Incorporation of PAA Finance Corp. (f/k/a Pacific Energy Finance Corporation, successor-by-merger to PAA Finance Corp.) (incorporated by reference to Exhibit 3.10 to our Annual Report on Form 10-K for the year ended December 31, 2006).

3.15		(incorporated by reference to Exhibit 3.11 to our Annual Report on Form 10-K for the year ended December 31, 2006).
3.16	_	<u>Limited Liability Company Agreement of PAA GP LLC dated December 28, 2007 (incorporated by reference to Exhibit 3.3 to our Current Report on Form 8-K filed January 4, 2008).</u>
3.17	_	Certificate of Limited Partnership of Plains GP Holdings, L.P. (incorporated by reference to Exhibit 3.1 to PAGP's Registration Statement on Form S-1 (333-190227) filed July 29, 2013).
3.18	_	Second Amended and Restated Agreement of Limited Partnership of Plains GP Holdings, L.P. dated November 15, 2016 (incorporated by reference to Exhibit 3.2 to PAGP's Current Report on Form 8-K filed November 21, 2016).
3.19	_	Amendment No. 1 dated April 6, 2020 to the Second Amended and Restated Agreement of Limited Partnership of Plains GP Holdings, L.P. (incorporated by reference to Exhibit 3.1 to PAGP's Current Report on Form 8-K filed April 9, 2020).
3.20	_	Certificate of Formation of PAA GP Holdings LLC (incorporated by reference to Exhibit 3.3 to PAGP's Registration Statement or Form S-1 (333-190227) filed July 29, 2013).
3.21	_	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).
3.22	_	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).
3.23	_	Amendment No. 2 dated December 10, 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 December 11, 2018).
3.24	_	Amendment No. 3 dated November 21, 2019 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 November 27, 2019).
3.25	_	Amendment No. 4 dated February 25, 2021 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 March 3, 2021).
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 our 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 our 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 our Current Report on Form 8-K filed October 30, 2006).
4.4	_	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 our Current Report on Form 8-K filed March 26, 2012).
4.5	_	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 our Current Report on Form 8-K filed March 26, 2012).



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 - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH†	_	Inline XBRL Taxonomy Extension Schema Document
101.CAL†	_	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF†	_	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB†	_	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE†	_	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104†	_	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

[†] Filed herewith.

^{††} Furnished herewith.

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 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

/s/ Willie Chiang By:

Willie Chiang,

Chief Executive Officer of Plains All American GP LLC

(Principal Executive Officer)

May 7, 2021

/s/ Al Swanson By:

Al Swanson,

Executive Vice President and Chief Financial Officer of Plains All American GP LLC

(Principal Financial Officer)

May 7, 2021

By: /s/ Chris Herbold

Chris Herbold,

Senior Vice President and Chief Accounting Officer of Plains All American GP LLC

(Principal Accounting Officer)

May 7, 2021

CERTIFICATION

I, Willie Chiang, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Plains All American Pipeline, 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: May 7, 2021

/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 All American Pipeline, 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;
- Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the (c) effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
- 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):
- 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
- 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: May 7, 2021

/s/ Al Swanson

Al Swanson

Chief Financial Officer

CERTIFICATION OF CHIEF EXECUTIVE OFFICER OF PLAINS ALL AMERICAN PIPELINE, L.P. PURSUANT TO 18 U.S.C. 1350

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

- (i) the accompanying report on Form 10-Q for the period ended March 31, 2021 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: May 7, 2021

CERTIFICATION OF CHIEF FINANCIAL OFFICER OF PLAINS ALL AMERICAN PIPELINE, L.P. PURSUANT TO 18 U.S.C. 1350

- I, Al Swanson, Chief Financial Officer of Plains All American Pipeline, L.P. (the "Company"), hereby certify that:
- (i) the accompanying report on Form 10-Q for the period ended March 31, 2021 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: May 7, 2021