PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) (1) Financial Statements

See "Index to the Consolidated Financial Statements" set forth on Page F-1.

(2) Financial Statement Schedules

All schedules are omitted because they are either not applicable or the required information is shown in the Consolidated Financial Statements or notes thereto.

(3) Exhibits

Exhibit No.		Description
2.1*		Simplification Agreement dated as of July 11, 2016, by and among PAA GP Holdings LLC, Plains GP Holdings, L.P., Plains All American GP LLC, Plains AAP, L.P., PAA GP LLC and Plains All American Pipeline, L.P. (incorporated by reference to Exhibit 2.1 to our Current Report on Form 8-K filed July 14, 2016).
2.2*	_	Agreement and Plan of Merger dated as of July 12, 2021 by and among Plains Pipeline, L.P., Plains Marketing, L.P., Oryx Midstream Holdings LLC, Middle Cadence Holdings LLC, POP HoldCo LLC, Oryx Wink Oil Marketing LLC, Oryx Permian Oil Marketing LLC, Plains Oryx Permian Basin LLC, Plains Oryx Permian Basin Marketing LLC and Plains Oryx Permian Basin Pipeline LLC (incorporated by reference to Exhibit 2.1 to our Current Report on Form 8-K filed July 13, 2021).
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	_	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).
3.9	_	Amendment No. 1 dated January 1, 2013 to the Third Amended and Restated Agreement of Limited Partnership of Plains 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).

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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 Form8-K filed November 21, 2016).
3.11	_	Eighth Amended and Restated Limited Partnership Agreement of Plains AAP, L.P. dated November 15, 2016 (incorporated by reference to Exhibit 3.4 to our Current Report on Form 8-K filed November 21, 2016).
3.12	_	Amendment No. 1 dated September 26, 2018 to the Eighth Amended and Restated Limited Partnership Agreement of Plains AAP, LP. (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	_	Bylaws of PAA Finance Corp. (f/k/a Pacific Energy Finance Corporation, successor-by-merger to PAA Finance Corp.) (incorporated by reference to Exhibit 3.11 to our Annual Report on Form 10-K for the year ended December 31, 2006).
3.16	_	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).
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 as of 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 on Form S-1 (333-190227) filed July 29, 2013).
3.21 †	_	Fourth Amended and Restated Limited Liability Company Agreement of PAA GP Holdings LLC dated effective as of August 19, 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).

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4.18 4.19† 10.1	_	Registration Rights Agreement by and among Plains All American Pipeline, L.P. and the Holders defined therein, dated November 15, 2016 (incorporated by reference to Exhibit 10.4 to our Current Report on Form8-K filed November 21, 2016). Description of Our Securities. Credit Agreement dated as of August 20, 2021, among Plains All American Pipeline, L.P. and Plains Midstream Canada ULC, as Borrowers; certain subsidiaries of Plains
4.17	_	Registration Rights Agreement dated as of January 28, 2016 among Plains All American Pipeline, L.P. and the Purchasers named therein (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed February 2, 2016).
4.16	_	Registration Rights Agreement dated September 3, 2009 by and between Plains All American Pipeline, L.P. and Vulcan Gas Storage LLC (incorporated by reference to Exhibit 4.1 to our Registration Statement on Form S-3, File No. 333-162477).
4.15	_	Thirty-Second Supplemental Indenture (3.80% Senior Notes due 2030) dated June 11, 2020, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed June 11, 2020).
4.14	_	Thirty-First Supplemental Indenture (3.55% Senior Notes due 2029) dated September 16, 2019, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed September 17, 2019).
4.13	_	Thirtieth Supplemental Indenture (4.50% Senior Notes due 2026) dated November 22, 2016, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form8-K filed November 29, 2016).
4.12	_	Twenty-Ninth Supplemental Indenture (4.65% Senior Notes due 2025) dated August 24, 2015, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed August 26, 2015).
4.11	_	Twenty-Eighth Supplemental Indenture (4.90% Senior Notes due 2045) dated December 9, 2014, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.3 to our Current Report on Form 8-K filed December 11, 2014).
4.10	_	Twenty-Sixth Supplemental Indenture (3.60% Senior Notes due 2024) dated September 9, 2014, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed September 11, 2014).
4.9	_	Twenty-Fifth Supplemental Indenture (4.70% Senior Notes due 2044) dated April 23, 2014, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form8-K filed April 29, 2014).
4.8	_	Twenty-Fourth Supplemental Indenture (3.85% Senior Notes due 2023) dated August 15, 2013, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed August 15, 2013).
4.7	_	Twenty-Third Supplemental Indenture (4.30% Senior Notes due 2043) dated December 10, 2012, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.3 to our Current Report on Form 8-K filed December 12, 2012).
4.6	_	Twenty-Second Supplemental Indenture (2.85% Senior Notes due 2023) dated December 10, 2012, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed December 12, 2012).

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10.2	_	Fourth Amended and Restated Credit Agreement dated as of August 20, 2021, among Plains Marketing, L.P. and Plains Midstream Canada ULC, as Borrowers; Plains All American Pipeline, L.P., as guarantor; Bank of America, N.A., as Administrative Agent and Swing Line Lender; Bank of America, N.A., Citibank, N.A., JPMorgan Chase Bank, N.A. and Wells Fargo Bank, National Association, as L/C Issuers; and the other Lenders party thereto (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed August 26, 2021).
10.3	_	Contribution and Assumption Agreement dated December 28, 2007, by and between Plains AAP, L.P. and PAA GP LLC (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed January 4, 2008).
10.4	_	Omnibus Agreement by and among PAA GP Holdings LLC, Plains GP Holdings, L.P., Plains All American GP LLC, Plains AAP, L.P., PAA GP LLC, and Plains All American Pipeline, L.P., dated November 15, 2016 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed November 21, 2016).
10.5	_	Amended and Restated Administrative Agreement by and among PAA GP Holdings LLC, Plains GP Holdings, L.P., Plains All American GP LLC, Plains AAP, L.P., PAA GP LLC, and Plains All American Pipeline, L.P., dated November 15, 2016 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed November 21, 2016).
10.6**	_	Amended and Restated Employment Agreement between Plains All American GP LLC and Greg L. Armstrong dated as of June 30, 2001 (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2001).
10.7**	_	First Amendment to Amended and Restated Employment Agreement dated December 4, 2008 between Plains All American GP LLC and Greg L. Armstrong (incorporated by reference to Exhibit 10.49 to our Annual Report on Form 10-K for the year ended December 31, 2008).
10.8**	_	Waiver Agreement dated as of December 23, 2010 between Plains All American GP LLC and Greg L. Amstrong (incorporated by reference to Exhibit 10.31 to our Annual Report on Form 10-K for the year ended December 31, 2010).
10.9**	_	Waiver Agreement dated October 21, 2013 to the Amended and Restated Employment Agreement dated June 30, 2001 of Greg L. Armstrong (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed October 25, 2013).
10.10**	_	Second Amended and Restated Employment Agreement dated effective October 1, 2018 between Plains All American GP LLC and Greg L. Armstrong (incorporated by reference to Exhibit 10.6 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2018).
10.11**	_	Third Amended and Restated Employment Agreement dated effective January 1, 2020 between Plains All American GP LLC and Greg L. Armstrong (incorporated by reference to Exhibit 10.31 to our Annual Report on Form 10-K for the year ended December 31, 2019.
10.12**†	_	Amendment No. 1 to Third Amended and Restated Employment Agreement dated effective December 31, 2021 between Plains All American GP LLC and Greg L. Amstrong.
10.13**	_	Amended and Restated Employment Agreement between Plains All American GP LLC and Harry N. Pefanis dated as of June 30, 2001 (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2001).
10.14**	_	First Amendment to Amended and Restated Employment Agreement dated December 4, 2008 between Plains All American GP LLC and Harry N. Pefanis (incorporated by reference to Exhibit 10.50 to our Annual Report on Form 10-K for the year ended December 31, 2008).
10.15**	_	Amendment No. 2 dated August 15, 2019 to Harry Pefanis Amended and Restated Employment Agreement (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).
10.16**	_	Waiver Agreement dated as of December 23, 2010 between Plains All American GP LLC and Harry N, Pefanis (incorporated by reference to Exhibit 10.32 to our Annual Report on Form 10-K for the year ended December 31, 2010).

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10.17**	_	Waiver Agreement dated October 21, 2013 to the Amended and Restated Employment Agreement dated June 30, 2001 of Harry N. Pefanis (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed October 25, 2013).
10.18**	_	Employment Agreement between Plains All American GP LLC and Willie Chiang dated July 10, 2015 (incorporated by reference to Exhibit 10.53 to our Annual Report on Form 10-K for the year ended December 31, 2015).
10.19**	_	Amended and Restated Employment Agreement dated effective October 1, 2018 between Plains All American GP LLC and Willie Chiang (incorporated by reference to Exhibit 10.7 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2018).
10.20**	_	First Amendment to Plains AAP, L.P. Class B Restricted Units Agreement dated August 25, 2016 (Willie Chiang) (incorporated by reference to Exhibit 10.8 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016).
10.21**	_	Second Amendment dated March 22, 2018 to Plains AAP, L.P. Class B Restricted Units Agreement (Willie Chiang) (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018).
10.22**	_	LTIP Grant Letter dated August 16, 2018 (Willie Chiang) incorporated by reference to Exhibit 10.8 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2018).
10.23**	_	Plains All American 2021 Long-Term Incentive Plan (incorporated by reference to Exhibit A to our Definitive Proxy Statement filed on April 12, 2021).
10.24**	_	Plains All American 2013 Long-Term Incentive Plan (incorporated by reference to Exhibit A to our Definitive Proxy Statement filed on October 3, 2013).
10.25**	_	Plains All American PNG Successor Long-Term Incentive Plan (incorporated by reference to Exhibit 4.4 to our Registration Statement on Form S-8 (333-193139) filed December 31, 2013).
10.26**	_	PAA Natural Gas Storage, L.P. 2010 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.2 to PNG's Current Report on Form 8-K filed May 11, 2010).
10.27**	_	Plains GP Holdings, L.P. Long Term Incentive Plan, (incorporated by reference to Exhibit 10.3 to PAGP's Current Report on Form 8-K filed October 25, 2013).
10.28**	_	Form of Plains AAP, L.P. Class B Restricted Units Agreement (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed January 4, 2008).
10.29**	_	Form of Amendment to the Plains AAP, L.P. Class B Restricted Units Agreement, dated October 18, 2013 (incorporated by reference to Exhibit 10.4 to our Current Report on Form 8-K filed October 25, 2013).
10.30**	_	Form of Amendment to Plains AAP, LP, Class B Restricted Units Agreement dated August 25, 2016 (incorporated by reference to Exhibit 10.6 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 filed November 8, 2016).
10.31**	_	Form of First Amendment dated March 22, 2018 to Amended and Restated Plains AAP, L.P. Class B Restricted Units Agreement dated August 25, 2016 (Officers) (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018).
10.32**	_	Form of Director LTIP Grant Letter (August 2018) (incorporated by reference to Exhibit 10.66 to our Annual Report on Form 10-K for the year ended December 31, 2018).
10.33**	_	Director LTIP Grant Letter (December 2018) (incorporated by reference to Exhibit 10.67 to our Annual Report on Form 10-K for the year ended December 31, 2018).
10.34**	_	Form of LTIP Grant Letter dated August 15, 2019 (Officers) (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).
10.35**	_	Form of LTIP Grant Letter dated August 15, 2019 (Directors) (incorporated by reference to exhibit 10.3 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).
10.36**	_	Director LTIP Grant Letter (January 2020) (incorporated by reference to Exhibit 10.72 to our Annual Report on Form 10-K for the year ended December 31, 2019).

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10.37**	_	Form of LTIP Grant Letter dated August 13, 2020 (Officers) (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2020).
10.38**	_	Form of LTIP Grant Letter dated August 13, 2020 (Directors) (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2020).
10.39**	_	Form of Special Retention LTIP Grant Letter dated November 20, 2019 (incorporated by reference to Exhibit 10.53 to our Annual Report on Form 10-K for the year ended December 31, 2020).
10.40**	_	Form of LTIP Grant Letter dated December 21, 2017 (Goebel) (incorporated by reference to Exhibit 10.54 to our Annual Report on Form 10-K for the year ended December 31, 2020).
10.41**	_	Form of LTIP Grant Letter dated May 1, 2018 (Chandler) (incorporated by reference to Exhibit 10.56 to our Annual Report on Form 10-K for the year ended December 31, 2020).
10.42**	_	Form of LTIP Grant Letter dated August 19, 2021 (Named Executive Officers) (incorporated by reference to Exhibit 10.3 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2021).
10.43**	_	Form of LTIP Grant Letter dated August 19, 2021 (Directors) (incorporated by reference to Exhibit 10.4 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2021).
21.1 †	_	List of Subsidiaries of Plains All American Pipeline, L.P.
23.1 †	_	Consent of PricewaterhouseCoopers LLP.
31.1 †	_	Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a).
31.2 †	_	Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a).
32.1 ††	_	Certification of Principal Executive Officer pursuant to 18 U.S.C. 1350.
32.2 ††	_	Certification of Principal Financial Officer pursuant to 18 U.S.C. 1350.
101. INS†	_	XBRL Instance Document - 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.

Item 16. Form 10-K Summary

None.

^{††} Furnished herewith.

^{*} Certain schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. A copy of any omitted schedule will be furnished supplementally to the SEC upon request.

^{**} Management compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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

By: /s/ Willie Chiang

Willie Chiang,

Chief Executive Officer of Plains All American GP LLC

(Principal Executive Officer)

February 28, 2022

By: /s/ Al Swanson

Al Swanson,

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

(Principal Financial Officer)

February 28, 2022

By: /s/ Chris Herbold

Chris Herbold,

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

(Principal Accounting Officer)

February 28, 2022

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Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

	Title	Date
/s/ Willie Chiang	Chairman of the Board of PAA GP Holdings LLC and Chief Executive Officer of Plains All American GP LLC (Principal Executive Officer)	February 28, 2022
Willie Chiang	(Timelphi Executive Officer)	
/s/ Harry N. Pefanis	Director of PAA GP Holdings LLC and President of Plains All American GP LLC	February 28, 2022
Harry N. Pefanis		
/s/ Al Swanson	Executive Vice President and Chief Financial Officer of Plains All American GP LLC (Principal Financial Officer)	February 28, 2022
Al Swanson		
/s/ Chris Herbold	Senior Vice President, Finance and Chief Accounting Officer of Plains All American GP LLC (Principal	February 28, 2022
Chris Herbold	Accounting Officer)	
/s/ Greg L. Armstrong	Director of PAA GP Holdings LLC	February 28, 2022
Greg L. Armstrong		
/s/ Victor Burk	Director of PAA GP Holdings LLC	February 28, 2022
Victor Burk		
/s/ Kevin McCarthy	Director of PAA GP Holdings LLC	February 28, 2022
Kevin McCarthy		
/s/ Gary R. Petersen	Director of PAA GP Holdings LLC	February 28, 2022
Gary R. Petersen		
/s/ Alexandra D. Pruner	Director of PAA GP Holdings LLC	February 28, 2022
Alexandra D. Pruner		
/s/ John T. Raymond	Director of PAA GP Holdings LLC	February 28, 2022
John T. Raymond		
/s/ Bobby S. Shackouls	Director of PAA GP Holdings LLC	February 28, 2022
Bobby S. Shackouls		
/s/ Christopher M. Temple	Director of PAA GP Holdings LLC	February 28, 2022
Christopher M. Temple		
/s/ Lawrence M. Ziemba	Director of PAA GP Holdings LLC	February 28, 2022
Lawrence M. Ziemba		

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MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Plains All American Pipeline, L.P.'s management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed 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.

Internal control over financial reporting has inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

Management has used the framework set forth in the report entitled "Internal Control—Integrated Framework" (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") to evaluate the effectiveness of the Partnership's internal control over financial reporting. Based on that evaluation, management has concluded that the Partnership's internal control over financial reporting was effective as of December 31, 2021.

The effectiveness of the Partnership's internal control over financial reporting as of December 31, 2021 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears on Page F-3.

/s/ Willie Chiang

Willie Chiang

Chief Executive Officer of Plains All American GP LLC (Principal Executive Officer)

/s/ Al Swanson

Al Swanson

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

February 28, 2022

Report of Independent Registered Public Accounting Firm

To the Board of Directors of PAA GP Holdings LLC and Unitholders of Plains All American Pipeline, L.P.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Plains All American Pipeline, L.P. and its subsidiaries (the "Partnership") as of December 31, 2021 and 2020, and the related consolidated statements of operations, of comprehensive income (loss), of changes in accumulated other comprehensive income/(loss), of changes in partners' capital and of cash flows for each of the three years in the period ended December 31, 2021, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Partnership's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Partnership as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Partnership maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Partnership's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Partnership's consolidated financial statements and on the Partnership's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Partnership in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Accounting for the Oryx Midstream Holdings LLC Business Combination

As described in Note 7 to the consolidated financial statements, in October 2021, the Partnership and Oryx Midstream Holdings LLC ("Oryx Midstream"), completed the merger, in a cashless, debt-free transaction, of their respective Permian Basin assets, operations and commercial activities into a newly formed strategic joint venture, Plains Oryx Permian Basin LLC (the "Permian JV"). The Permian JV includes all of Oryx Midstream's Permian Basin assets and, with the exception of the Partnership's long-haul pipeline systems and certain of the intra-basin terminal assets, the vast majority of the Partnership's assets located within the Permian Basin. The Partnership owns 65% of Permian JV, operates the combined assets and reflects Permian JV as a consolidated subsidiary in the consolidated financial statements. The formation of the joint venture was accounted for as a business combination using the acquisition method of accounting. As the majority owner and the controlling entity, the Partnership is considered the acquirer and the transfer of the predecessor business to the joint venture was accounted for at historical cost, while the Oryx Midstream's ownership interest in the joint venture following the formation of \$3.256 billion is utilized as the consideration transferred for the purchase price allocation. The fair value of the \$3.256 billion consideration is a Level 3 measurement in the fair value hierarchy and was determined by valuing both the enterprise value of Oryx Midstream's Permian Basin business and the enterprise value of the Partnership's Permian Basin assets that were contributed to the joint venture. The enterprise value of Oryx Midstream's Permian Basin business was calculated by weighting the results of (i) a discounted cash flow ("DCF") approach and (ii) a guideline public company method ("GPCM"). The DCF approach utilized a discount rate based on the estimate of the risk that a theoretical market participant would assign to the business. The projection of future crude volumes gathered and transp

The principal considerations for our determination that performing procedures relating to the accounting for the Oryx Midstream business combination is a critical audit matter are (i) the significant judgment by management when determining the fair value of the consideration transferred for the Oryx Midstream Permian Basin business and the customer relationships, which in turn led to a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions related to future crude volumes gathered and transported and the discount rates used in the valuation of the consideration transferred for the Oryx Midstream Permian Basin business and the customer relationships; and (ii) the audit effort involved the use of professionals with specialized skill and knowledge.

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Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to acquisition accounting, including controls over management's valuation of the consideration transferred and the customer relationships, and controls over the determination of the significant assumptions. These procedures also included, among others (i) reading the transaction agreement and (ii) testing management's process for determining the fair value of the consideration transferred for the Oryx Midstream Permian Basin business and the customer relationships. Testing management's process included evaluating the appropriateness of the valuation methods, testing the completeness and accuracy of data provided by management, and evaluating the reasonableness of the significant assumptions related to future crude volumes gathered and transported and the discount rates used in the valuation of the consideration transferred for the Oryx Midstream Permian Basin business and the customer relationships. Evaluating the reasonableness of the future crude volumes gathered and transported involved considering (i) the consistency with external market and industry data and (ii) the past performance of the Oryx Midstream Permian Basin business. Professionals with specialized skill and knowledge were used to assist in evaluating the appropriateness of the valuation methods and the reasonableness of the discount rate significant assumption.

/s/ PricewaterhouseCoopers LLP

Houston, Texas February 28, 2022

We have served as the Partnership's auditor since 1998.

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

	Decem	ber 31, 2021	December 31, 2020
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents	\$	449	\$ 22
Restricted cash		4	38
Trade accounts receivable and other receivables, net		4,705	2,553
Inventory		783	647
Other current assets		196	405
Total current assets		6,137	3,665
PROPERTY AND EQUIPMENT		19,257	18,585
Accumulated depreciation		(4,354)	(3,974)
Property and equipment, net		14,903	14,611
OTHER ASSETS			
Investments in unconsolidated entities		3,805	3,764
Intangible assets, net		1,960	805
Linefill and base gas		907	982
Long-term operating lease right-of-use assets, net		393	378
Long-terminventory		253	130
Other long-termassets, net		251	162
Total assets	\$	28,609	\$ 24,497
LIABILITIES AND PARTNERS' CAPITAL			
CURRENT LIABILITIES			
Trade accounts payable	\$	4,810	\$ 2,437
Short-term debt		822	831
Other current liabilities		600	985
Total current liabilities		6,232	4,253
LONG-TERM LIABILITIES			
Senior notes, net		8,329	9,071
Other long-term debt, net		69	311
Long-term operating lease liabilities		339	317
Other long-term liabilities and deferred credits		830	807
Total long-term liabilities		9,567	10,506
COMMITMENTS AND CONTINGENCIES (NOTE 19)			
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 (704,991,540 and 722,380,416 units outstanding, respectively)		7,680	7,301
Total partners' capital excluding noncontrolling interests		9,972	9,593
Noncontrolling interests		2,838	145
Total partners' capital		12,810	9,738
Total liabilities and partners' capital	\$	28,609	\$ 24,497

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

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

	Year Ended December 31,		
	 2021	2020	2019
REVENUES			
Product sales revenues	\$ 40,883	\$ 22,058	\$ 32,272
Services revenues	1,195	1,232	1,397
Total revenues	42,078	23,290	33,669
COSTS AND EXPENSES			
Purchases and related costs	38,504	20,431	29,452
Field operating costs	1,065	1,076	1,303
General and administrative expenses	292	271	297
Depreciation and amortization	774	653	601
(Gains)/losses on asset sales and asset impairments, net (Note 6, Note 7)	592	719	28
Goodwill impairment losses (Note 8)	 	2,515	
Total costs and expenses	41,227	25,665	31,681
OPERATING INCOME/(LOSS)	851	(2,375)	1,988
OTHER INCOME/(EXPENSE)			
Equity earnings in unconsolidated entities	274	355	388
Gain on/(impairment of) investments in unconsolidated entities, net (Note 9)	2	(182)	271
Interest expense (net of capitalized interest of \$18, \$24 and \$34, respectively)	(425)	(436)	(425)
Other income, net	 19	39	24
INCOME/(LOSS) BEFORE TAX	721	(2,599)	2,246
Current income tax expense	(50)	(51)	(112)
Deferred income tax (expense)/benefit	 (23)	70	46
NET INCOME/(LOSS)	648	(2,580)	2,180
Net income attributable to noncontrolling interests	(55)	(10)	(9)
NET INCOME/(LOSS) ATTRIBUTABLE TO PAA	\$ 593	\$ (2,590)	\$ 2,171
NET INCOME/(LOSS) PER COMMON UNIT (NOTE 4):			
Net income/(loss) allocated to common unitholders — Basic	\$ 393	\$ (2,790)	\$ 1,967
Basic weighted average common units outstanding	716	728	727
Basic net income/(loss) per common unit	\$ 0.55	\$ (3.83)	\$ 2.70
	202	6 6 7 7 8 9 9	Φ
Net income/(loss) allocated to common unitholders — Diluted	\$ 393	\$ (2,790)	
Diluted weighted average common units outstanding	 716	728	800
Diluted net income/(loss) per common unit	\$ 0.55	\$ (3.83)	\$ 2.65

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

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

	 Year Ended December 31,			
	 2021	2020	2019	
Net income/(loss)	\$ 648	\$ (2,580)	\$ 2,180	
Other comprehensive income	65	15	97	
Comprehensive income/(loss)	 713	(2,565)	2,277	
Comprehensive income attributable to noncontrolling interests	 (55)	(10)	(9)	
Comprehensive income/(loss) attributable to PAA	\$ 658	\$ (2,575)	\$ 2,268	

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

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

	Derivative Instruments	Translation Adjustments	Other	Total
Balance at December 31, 2018	\$ (177)	\$ (853)	\$	\$ (1,030)
Reclassification adjustments	9	_	_	9
Unrealized loss on hedges	(91)	_	_	(91)
Currency translation adjustments	_	179	_	179
2019 Activity	(82)	179		97
Balance at December 31, 2019	\$ (259)	\$ (674)	\$	\$ (933)
Reclassification adjustments	11	_	_	11
Unrealized loss on hedges	(10)	_	_	(10)
Currency translation adjustments	_	17	_	17
Other	_	_	(3)	(3)
2020 Activity	1	17	(3)	15
Balance at December 31, 2020	\$ (258)	\$ (657)	\$ (3)	\$ (918)
	<u> </u>			
Reclassification adjustments	31	_	_	31
Unrealized gain on hedges	19	_	_	19
Currency translation adjustments	_	15	_	15
2021 Activity	50	15	_	65
Balance at December 31, 2021	\$ (208)	\$ (642)	\$ (3)	\$ (853)

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

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

(in natitous)		V	ear Ended December	31.					
	202		2020	U.,	2019				
CASH FLOWS FROM OPERATING ACTIVITIES									
Net income/(loss)	\$	648	\$ (2,580)	\$	2,180				
Reconciliation of net income/(loss) to net cash provided by operating activities:									
Depreciation and amortization		774	653		601				
(Gains)/losses on asset sales and asset impairments, net (Note 6, Note 7)		592	719		28				
Goodwill impairment losses (Note 8)		_	2,515		_				
Equity-indexed compensation expense		23	15		34				
Inventory valuation adjustments (Note 5)		_	233		11				
Deferred income tax expense/(benefit)		23	(70)		(46)				
Settlement of terminated interest rate hedging instruments		_	(100)		(55)				
Equity earnings in unconsolidated entities		(274)	(355)		(388)				
Distributions on earnings from unconsolidated entities		431	472		401				
(Gain on)/impairment of investments in unconsolidated entities, net (Note 9)		(2)	182		(271)				
Other		8	(12)		21				
Changes in assets and liabilities, net of acquisitions:									
Trade accounts receivable and other		(2,179)	1,432		(1,158)				
Inventory		(18)	(304)		(5)				
Trade accounts payable and other		1,970	(1,286)		1,151				
Net cash provided by operating activities		1,996	1,514		2,504				
CASH FLOWS FROM INVESTING ACTIVITIES									
Cash paid in connection with acquisitions, net of cash acquired (Note 7)		(32)	(310)		(50)				
Investments in unconsolidated entities (Note 9)		(94)	(461)		(524)				
Additions to property, equipment and other		(336)	(738)		(1,181)				
Proceeds from sales of assets (Note 7)		881	429		77				
Other investing activities		(33)	(13)		(87)				
Net cash provided by/(used in) investing activities		386	(1,093)		(1,765)				
CASH FLOWS FROM FINANCING ACTIVITIES									
Net borrowings/(repayments) under commercial paper program (Note 11)		(545)	456		93				
Net borrowings/(repayments) under senior secured hedged inventory facility (Note 11)		(167)	(160)		325				
Repayment of GO Zone term loans (Note 11)		(200)	· —		_				
Proceeds from the issuance of senior notes (Note 11)		`	748		998				
Repayments of senior notes (Note 11)		_	(617)		(1,000)				
Repurchase of common units (Note 12)		(178)	(50)		` _				
Distributions paid to Series A preferred unitholders (Note 12)		(149)	(149)		(149)				
Distributions paid to Series B preferred unitholders (Note 12)		(49)	(49)		(49)				
Distributions paid to common unitholders (Note 12)		(517)	(655)		(1,004)				
Sale of noncontrolling interest in a subsidiary (Note 12)			· —		128				
Other financing activities		(179)	41		(62)				
Net cash used in financing activities		(1,984)	(435)		(720)				
Effect of translation adjustment		(5)	(8)		(3)				
Net increase/(decrease) in cash and cash equivalents and restricted cash		393	(22)		16				
Cash and cash equivalents and restricted cash, beginning of period		60	82		66				
Cash and cash equivalents and restricted cash, end of period	\$	453	\$ 60	\$	82				
Cash paid for:									
Interest, net of amounts capitalized	\$	401	\$ 428	\$	397				
Income taxes, net of amounts refunded	\$	76			136				
	•								

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

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

			L	imited Partners			Partners' Capital				
		Preferred l	Unit	holders	Common		Excluding Noncontrolling		Noncontrolling		Total Partners'
		Series A		Series B	 Unitholders	Interests			Interests	Capital	
Balance at December 31, 2018	\$	1,505	\$	787	\$ 9,710	\$	12,002	\$	<u> </u>	\$	12,002
		_			_						
Net income		149		49	1,973		2,171		9		2,180
Distributions (Note 12)		(149)		(49)	(1,004)		(1,202)		(6)		(1,208)
Other comprehensive income		_		_	97		97		_		97
Equity-indexed compensation expense		_		_	17		17		_		17
Sale of noncontrolling interest in a subsidiary (Note 12)		_		_	(2)		(2)		130		128
Other					(21)		(21)				(21)
Balance at December 31, 2019	\$	1,505	\$	787	\$ 10,770	\$	13,062	\$	133	\$	13,195
	_					_					
Net income/(loss)		149		49	(2,788)		(2,590)		10		(2,580)
Distributions (Note 12)		(149)		(49)	(655)		(853)		(10)		(863)
Other comprehensive income					15		15		_		15
Equity-indexed compensation expense		_		_	19		19		_		19
Repurchase of common units (Note 12)		_		_	(50)		(50)		_		(50)
Contributions from noncontrolling interests (Note 12)		_		_	_		_		12		12
Other		_		_	(10)		(10)		_		(10)
Balance at December 31, 2020	\$	1,505	\$	787	\$ 7,301	\$	9,593	\$	145	\$	9,738
	_										
Net income		149		49	395		593		55		648
Distributions (Note 12)		(149)		(49)	(517)		(715)		(14)		(729)
Other comprehensive income				_	65		65		_		65
Equity-indexed compensation expense		_		_	19		19		_		19
Repurchase of common units (Note 12)				_	(178)		(178)		_		(178)
Contributions from noncontrolling interests (Note 12)		_		_	_		_		1		1
Plains Oryx Permian Basin LLC joint venture formation (Note 7)		_		_	605		605		2,651		3,256
Other					(10)		(10)				(10)
Balance at December 31, 2021	\$	1,505	\$	787	\$ 7,680	\$	9,972	\$	2,838	\$	12,810

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

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-K and unless the context indicates otherwise, the terms "Partnership," "we," "our," "our," "our," "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 and conducted through two operating segments: Crude Oil and NGL. See Note 20 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 December 31, 2021, AAP also owned a limited partner interest in us through its ownership of approximately 241.5 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 December 31, 2021, owned an approximate 81% 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 the "PAGP Entities" include PAGP GP, PAGP, GP LLC, AAP and PAA GP. References to our "general partner," as the context requires, include any or all of the PAGP Entities. References to the "Plains Entities" include us, our subsidiaries and the PAGP Entities.

Definitions

Additional defined terms are used in the following notes 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

DERs Distribution equivalent rights

Earnings before interest, taxes, depreciation and amortization EBITDA

United States Environmental Protection Agency EPA FASB Financial Accounting Standards Board

GAAP Generally accepted accounting principles in the United States

ICE Intercontinental Exchange

International Swaps and Derivatives Association ISDA

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

MLP Master limited partnership

NGL Natural gas liquids, including ethane, propane and butane

NYMEX New York Mercantile Exchange

SEC United States Securities and Exchange Commission

TWh Terawatt hour U.S. United States USD United States dollar WTI West Texas Intermediate

Basis of Consolidation and Presentation

The accompanying financial statements and related notes present and discuss our consolidated financial position as of December 31, 2021 and 2020, and the consolidated results of our operations, cash flows, changes in partners' capital, comprehensive income and changes in accumulated other comprehensive income/(loss) for the years ended December 31, 2021, 2020 and 2019. 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, as discussed further below.

The accompanying 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.

Reclassification of Prior Period Information

During the fourth quarter of 2021, we effected changes in the primary financial information provided to our Chief Operating Decision Maker ("CODM") (our Chief Executive Officer) for assessing performance and allocating resources to present two operating segments, Crude Oil and NGL. Prior to the fourth quarter of 2021, this information was organized into three operating segments: Transportation, Facilities and Supply and Logistics. See Note 20 for further discussion of our operating segments. In connection with this change, we changed the presentation of Revenues on our Consolidated Statements of Operations. "Product sales revenues" include amounts that were previously presented as "Supply and Logistics segment revenues," while "Services revenues" includes amounts previously presented as "Transportation segment revenues" and "Facilities segment revenues."

In October 2021, we and Oryx Midstream Holdings LLC ("Oryx Midstream") completed the merger, in a cashless, debt-free transaction, of our respective Permian Basin assets, operations and commercial activities into a newly formed joint venture, Plains Oryx Permian Basin LLC (the "Permian JV"). See Note 7 for more details regarding this transaction. Due to the increase in intangible assets associated with this transaction, we present "Intangible assets, net" as a separate line item on our Consolidated Balance Sheets. Such amounts were previously reported in "Other long-term assets, net" on our Consolidated Balance Sheets.

COVID-19

Many uncertainties remain with respect to the novel coronavirus ("COVID-19") pandemic, including uncertainty regarding the length of time the pandemic will continue, as well as the timing, pace and extent of an economic recovery in the United States, Canada and elsewhere, and how such uncertainties will impact the energy industry and our business. As a result, these matters may affect our estimates and assumptions on amounts reported in the financial statements and accompanying notes in the near term.

Subsequent Events

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

Use of Estimates

The preparation of financial statements in conformity with GAAP requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, as well as the disclosure of contingent assets and liabilities at the date of the financial statements. Such estimates and assumptions also affect the reported amounts of revenues and expenses during the reporting period. We make significant estimates with respect to (i) estimated fair value of assets and liabilities acquired and identification of associated goodwill and intangible assets, (ii) fair value of derivatives, (iii) accruals and contingent liabilities, (iv) property and equipment, depreciation and amortization expense and asset retirement obligations, (v) impairment assessments of property and equipment, investments in unconsolidated entities and intangible assets and (vi) inventory valuations. Although we believe these estimates are reasonable, actual results could differ from these estimates.

Purchases and Related Costs

Purchases and related costs include (i) the weighted average cost of crude oil and NGL sold to customers, (ii) fees incurred for storage and transportation, whether by pipeline, truck or rail and (iii) performance-related bonus costs. These costs are recognized when incurred except in the case of products sold, which are recognized at the time title transfers to our customers. Inventory exchanges under buy/sell transactions are presented net in "Purchases and related costs" in our Consolidated Statements of Operations.

Field Operating Costs and General and Administrative Expenses

Field operating costs consist of various field operating expenses, including payroll, compensation and benefits costs for operations personnel; fuel and power costs (including the impact of gains and losses from derivative related activities); third-party trucking transportation costs for our U.S. crude oil operations; maintenance and integrity management costs; regulatory compliance; environmental remediation; insurance; costs for usage of third-party owned pipeline, rail and storage assets; vehicle leases; and property taxes. General and administrative expenses consist primarily of payroll, compensation and benefits costs; certain information systems and legal costs; office rent; contract and consultant costs; and audit and tax fees.

Foreign Currency Transactions/Translation

Certain of our subsidiaries use the Canadian dollar as their functional currency. Assets and liabilities of subsidiaries with a Canadian dollar functional currency are translated at period-end rates of exchange, and revenues and expenses are translated at average exchange rates prevailing for each month. The resulting translation adjustments are made directly to a separate component of other comprehensive income, which is reflected in Partners' Capital on our Consolidated Balance Sheets.

Certain of our subsidiaries also enter into transactions and have monetary assets and liabilities that are denominated in a currency other than the entities' respective functional currencies. Cains and losses from the revaluation of foreign currency transactions and monetary assets and liabilities are generally included in the Consolidated Statements of Operations. However, gains and losses arising from intercompany foreign currency transactions that are of a long-term investment nature are reported in the same manner as translation adjustments. For the years ended December 31, 2021, 2020 and 2019, the revaluation of foreign currency transactions and monetary assets and liabilities resulted in the recognitions of net gains of \$7 million, \$16 million and \$1 million, respectively, in our Consolidated Statements of Operations.

Cash and Cash Equivalents and Restricted Cash

Cash and cash equivalents consist of all unrestricted demand deposits and funds invested in highly liquid instruments with original maturities of three months or less and typically exceed federally insured limits. We periodically assess the financial condition of the institutions where these funds are held and believe that our credit risk is minimal.

In accordance with our policy, unless they may be covered by funds on deposit, outstanding checks are classified as trade accounts payable rather than negative cash. As of December 31, 2021 and 2020, trade accounts payable included \$19 million and \$27 million, respectively, of outstanding checks that were reclassified from cash and cash equivalents.

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 Consolidated Balance Sheets that sum to the total of the amounts shown on our Consolidated Statements of Cash Flows (in millions):

	 Decem	ber 31,
	2021	2020
Cash and cash equivalents	\$ 449	\$ 22
Restricted cash	4	38
Total cash and cash equivalents and restricted cash	\$ 453	\$ 60

Noncontrolling Interests

Noncontrolling interest represents the portion of assets and liabilities in a consolidated subsidiary that is owned by a third party. FASB guidance requires all entities to report noncontrolling interests in subsidiaries as a component of equity in the consolidated financial statements. See Note 12 for additional discussion regarding our noncontrolling interests.

Asset Retirement Obligations

FASB guidance establishes accounting requirements for retirement obligations associated with tangible long-lived assets, including estimates related to (i) the time of the liability recognition, (ii) initial measurement of the liability, (iii) allocation of asset retirement cost to expense, (iv) subsequent measurement of the liability and (v) financial statement disclosures. FASB guidance also requires that the cost for asset retirement should be capitalized as part of the cost of the related long-lived asset and subsequently allocated to expense using a systematic and rational method.

Some of our assets, primarily our pipelines, certain processing and fractionation facilities and terminals assets, have contractual or regulatory obligations to perform remediation and, in some instances, dismantlement and removal activities when the assets are abandoned. These obligations include varying levels of activity including disconnecting inactive assets from active assets, cleaning and purging assets, and in some cases, completely removing the assets and returning the land to its original state. These assets have been in existence for many years and with regular maintenance will continue to be in service for many years to come. It is not possible to predict when demand for these transportation, storage or other services will cease, and we do not believe that such demand will cease for the foreseeable future. Accordingly, we believe the date when these assets will be abandoned is indeterminate. With no reasonably determinable abandonment date, we cannot reasonably estimate the fair value of the associated asset retirement obligations. We will record asset retirement obligations for these assets in the period in which sufficient information becomes available for us to reasonably estimate the settlement dates.

A small portion of our contractual or regulatory obligations is related to assets that are inactive or that we plan to take out of service and, although the ultimate timing and costs to settle these obligations are not known with certainty, we have recorded a reasonable estimate of these obligations. The following table presents the change in the liability for asset retirement obligations, substantially all of which is reflected in "Other long-term liabilities and deferred credits" on our Consolidated Balance Sheets as of December 31, 2021, 2020 and 2019 (in millions):

	December 31,						
	2021			2020		2019	
Beginning balance	\$	135	\$	137	\$	109	
Liabilities incurred		2		12		3	
Liabilities settled		(1)		(1)		(3)	
Accretion expense		4		5		5	
Revisions in estimated cash flows		3		(18)		23	
Ending balance	\$	143	\$	135	\$	137	

Fair Value Measurements

Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement requires judgment, which affects the placement of assets and liabilities within the fair value hierarchy levels. The determination of the fair values includes not only the credit standing of the counterparties involved and the impact of credit enhancements (such as cash deposits and letters of credit) but also the impact of our nonperformance risk on our liabilities. The fair value of our commodity derivatives, interest rate derivatives and foreign currency derivatives includes adjustments for credit risk. Our credit adjustment methodology uses market observable inputs and requires judgment. There were no changes to any of our valuation techniques during the period. See Note 13 for further discussion.

Other Significant Accounting Policies

See the respective footnotes for our accounting policies regarding (i) revenues and accounts receivable, (ii) net income/(loss) per common unit, (iii) inventory, linefill and base gas and long-term inventory, (iv) property and equipment, (v) acquisitions, (vi) goodwill, (vii) investments in unconsolidated entities, (viii) intangible assets, (ix) income allocation for partners' capital presentation purposes, (x) derivatives and risk management activities, (xi) leases, (xii) income taxes, (xiii) equity-indexed compensation and (xiv) legal and environmental matters.

Recent Accounting Pronouncements

In October 2021, the FASB issued ASU 2021-08, Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers. This guidance requires that an acquirer recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606, Revenue from Contracts with Customers, as if it had originated the contracts. The guidance is effective prospectively for interimand annual periods beginning after December 15, 2022, with early adoption permitted. We have not adopted this guidance as of December 31, 2021, but do not anticipate that our adoption will have a material impact on our financial position, results of operations or cash flows.

In July 2021, the FASB issued ASU 2021-05, Lessors - Certain Leases with Variable Lease Payments (Topic 842) which modifies the lease classification requirements for lessors in Topic 842, which we adopted on the effective date of January 1, 2019. The amendments require lessors to classify and account for a lease with variable lease payments that do not depend on a reference index or a rate as an operating lease at lease commencement if another classification (i.e., sales-type or direct financing) would result in the recognition of a day-one loss. For entities that have adopted Topic 842, the guidance is effective for fiscal years, and for interimperiods within those fiscal years, beginning after December 15, 2021, with early adoption permitted. We have elected to early adopt the guidance on a prospective basis as of July 1, 2021. Our adoption did not have a material impact on our financial position, results of operations or cash flows.

In August 2020, the FASB issued ASU 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity, which simplifies accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity's own equity, by eliminating two of the three models that require separate accounting for embedded conversion features and the settlement assessment that entities are required to perform to determine whether a contract qualifies for equity classification. This guidance is effective for interimand annual periods beginning after December 15, 2021, with early adoption permitted. We adopted this guidance effective January 1, 2021, and our adoption did not have a material impact on our financial position, results of operations or cash flows*

In March 2020, the FASB issued ASU 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting, which provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions that reference LIBOR or another reference rate expected to be discontinued because of reference rate reform. This guidance is effective prospectively upon issuance through December 31, 2022 and may be applied from the beginning of an interim period that includes the issuance date of this ASU. We will apply applicable expedients and exceptions to contract modifications through December 31, 2022.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes* (*Topic 740*): Simplifying the Accounting for Income Taxes, to simplify the accounting for income taxes based on changes suggested by stakeholders as part of the FASB's simplification initiative. This guidance is effective for interim and annual periods beginning after December 15, 2020, with early adoption permitted. We adopted this guidance effective January 1, 2021, and our adoption did not have a material impact on our financial position, results of operations or cash flows.

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.

Revenues from Contracts with Customers. The following tables present our revenues from contracts with customers disaggregated by segment and type of activity (in millions):

			Year En	ded December 31,			
	2021 2020				2019		
Crude Oil segment revenues from contracts with customers							
Sales	\$	39,635	\$	21,250	\$	30,156	
Transportation		484		570		722	
Terminalling, Storage and Other		431		507		505	
Total Crude Oil segment revenues from contracts with customers	\$	40,550	\$	22,327	\$	31,383	

		Year	Ended December 31,	Year Ended December 31,								
	2021 2020				2019							
NGL segment revenues from contracts with customers												
Sales	\$ 2,292	\$	1,350	\$	2,211							
Transportation	25		29		32							
Terminalling, Storage and Other	82		96		80							
Total NGL segment revenues from contracts with customers	\$ 2,399	\$	1,475	\$	2,323							

Sales Revenues. Revenues from sales of crude oil and NGL are recognized at the time title to the product sold transfers to the purchaser, which occurs upon delivery of the product to the purchaser or its designee. The consideration received under these contracts is variable based on commodity prices. Inventory exchanges under buy/sell transactions are excluded from sales revenues in our Consolidated Statements of Operations.

In addition, we have certain crude oil sales agreements that are entered into in conjunction with storage arrangements and future inventory exchanges. The revenues under these agreements are deferred until all performance obligations associated with the related agreements are completed. The inventory that has been sold under these crude oil sales agreements is reflected in "Other current assets" on our Consolidated Balance Sheet until all of our performance obligations are complete. At that time, the inventory that has been sold is removed from our Consolidated Balance Sheet and recorded as "Purchases and related costs" in our Consolidated Statement of Operations. See "Contract Balances" below for further discussion of contract liabilities associated with these agreements. The following table presents amounts in Other current assets and deferred revenue associated with these agreements (in millions):

	Decem	iber 31,
	2021	2020
Other current assets	<u> </u>	\$ 229
Deferred revenue (1)	\$ —	\$ 361

⁽¹⁾ Included in "Other current liabilities" on our Consolidated Balance Sheet.

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

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

Terminalling, Storage and Other Revenues. Revenues in this category include (i) fees that are generated when we receive liquids from one connecting source and deliver the applicable product to another connecting carrier, (ii) fees from storage capacity agreements, (iii) fees from loading and unloading services at our terminals and (iv) fees from natural gas and condensate processing services and from NGL fractionation and isomerization service. We generate revenue through a combination of month-to-month and multi-year agreements and processing arrangements. Storage fees are typically recognized in revenue ratably over the term of the contract regardless of the actual storage capacity out utilized as our performance obligation is to make available storage capacity for a period of time. Terminal fees (including throughput and loading/unloading fees) are recognized as the liquids enter or exit the terminal and are received from or delivered to the connecting carrier or third-party terminal, as applicable. We recognize loading and unloading fees when the volumes are delivered or received. Natural gas storage related activities fees were recognized in the period the natural gas moved across our header system. Fees from NGL fractionation and isomerization services and gas processing services are recognized in the period when the services are performed.

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 Consolidated Statements of Operations (in millions):

Year Ended December 31, 2021	Crude Oil	NGL		Total
Revenues from contracts with customers	\$ 40,550	\$ 2,399	\$	42,949
Other items in revenues	(80)	(431)	(511)
Total revenues of reportable segments	\$ 40,470	\$ 1,968	\$	42,438
Intersegment revenues elimination	 _			(360)
Total revenues			\$	42,078
Year Ended December 31, 2020	Crude Oil	NGL		Total
Revenues from contracts with customers	\$ 22,327	\$ 1,475	\$	23,802
Other items in revenues	(128)	(115)	(243)
Total revenues of reportable segments	\$ 22,199	\$ 1,360	\$	23,559
Intersegment revenues elimination				(269)
Total revenues			\$	23,290
Year Ended December 31, 2019	Crude Oil	NGL		Total
Revenues from contracts with customers	\$ 31,383	\$ 2,323	\$	33,706
Other items in revenues	 272	116		388
Total revenues of reportable segments	\$ 31,655	\$ 2,439	\$	34,094
Intersegment revenues elimination				(425)
Total revenues			\$	33,669

Minimum Volume Commitments. We have certain agreements that require counterparties to transport or throughput a minimum volume over an agreed upon period. Some of these agreements include make-up rights if the minimum volume is not met. We record a receivable from the counterparty in the period that services are provided or when the transaction occurs, including amounts for deficiency obligations from counterparties associated with minimum volume commitments. If a counterparty has a make-up right associated with a deficiency, we defer the revenue attributable to the counterparty's make-up right as a contract liability and subsequently recognize the revenue at the earlier of when the deficiency volume is delivered or shipped, when the make-up right expires or when it is determined that the counterparty's ability to utilize the make-up right is remote.

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):

	December 31,							
Counterparty Deficiencies	Financial Statement Classification	2021	2020					
Billed and collected	Liability	\$ 63	\$ 73					
Unbilled (1)	N/A	16	4					
Total		\$ 79	\$ 77					

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

	Contract Liabilities
Balance at December 31, 2019	\$ 354
Amounts recognized as revenue (1)	(246)
Additions (2)	393
Balance at December 31, 2020	\$ 501
Amounts recognized as revenue (2)	(393)
Additions	33
Balance at December 31, 2021	\$ 141
	·

(1) Includes approximately \$155 million associated with crude oil sales agreements that were entered into in conjunction with storage arrangements and future inventory exchanges. Such agreements were entered into in 2019 and recognized as revenue in the first quarter of 2020.

(2) Includes approximately \$361 million associated with crude oil sales agreements that were entered into in conjunction with storage arrangements and future inventory exchanges. Such amount was recognized as revenue in the first 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 December 31, 2021 (in millions):

	2022	2023	2024	2025	2026	2027 and Thereafter
Pipeline revenues supported by minimum volume commitments and capacity agreements (1)	\$ 179	\$ 174	\$ 158	\$ 131	\$ 86	\$ 379
Terminalling, storage and other agreement revenues	237	170	130	63	45	197
Total	\$ 416	\$ 344	\$ 288	\$ 194	\$ 131	\$ 576

(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:
- · Buy/sell arrangements with future committed volumes;
- · Short-term contracts and those with variable consideration due to the election of practical expedients, as discussed below;
- · Contracts within the scope of ASC Topic 842, Leases; and
- · Contracts within the scope of ASC Topic 815, Derivatives and Hedging.

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

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

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 merchant activities that can generally be described as high volume and low margin activities, in many cases involving exchanges of crude oil volumes.

To mitigate credit risk related to our accounts receivable, we utilize a rigorous credit review process. We closely monitor market conditions and performedit 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 December 31, 2021 and 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 Consolidated Balance Sheets (in millions):

	 Decem	ber 31,	
	2021		2020
Trade accounts receivable arising from revenues from contracts with customers	\$ 4,031	\$	2,317
Other trade accounts receivables and other receivables (1)	5,126		2,818
Impact due to contractual rights of offset with counterparties	(4,452)		(2,582)
Trade accounts receivable and other receivables, net	\$ 4,705	\$	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

After consideration of distributions to preferred unitholders (whether paid in cash or in-kind), basic and diluted net income/(loss) per common unit is determined pursuant to the two-class method as prescribed in FASB guidance. This method is an earnings allocation formula that is used to determine allocations to our limited partners and participating securities according to distributions pertaining to the current period's net income and participation rights in undistributed earnings or distributions in excess of earnings. Under the two-class method, net income is reduced by distributions pertaining to the period, and all remaining earnings or distributions in excess of earnings are then allocated to our common unitholders and participating securities based on their respective rights to share in distributions, regardless of whether those earnings would actually be distributed during a particular period from an economic or practical perspective. Participating securities include equity-indexed compensation plan awards that have vested DERs, which entitle the grantee to a cash payment equal to the cash distribution paid on our outstanding common units.

We calculate basic and diluted net income/(loss) per common unit by dividing net income/(loss) attributable to PAA (after deducting amounts allocated to the 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. See Note 12 for additional information regarding our Series A preferred units. See Note 18 for a complete discussion of 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 year ended December 31, 2021 and 2020 as the effect was antidilutive for both periods. 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 were deemed to be dilutive during the year ended December 31, 2019 were 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. For the twelve months ended December 31, 2021 and 2020, approximately 0.5 million and 0.3 million equity-indexed compensation plan awards, respectively, on a weighted-average basis, were excluded from the computation of diluted net loss per common unit as the effect did not change the presentation of diluted net income/(loss) per common unit or the effect was antidilutive.

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

		Year Ended December 31,			
	2021		2020		2019
Basic Net Income/(Loss) per Common Unit					
Net income/(loss) attributable to PAA	\$	593	\$ (2,590)	\$	2,171
Distributions to Series A preferred unitholders	(149)	(149)		(149)
Distributions to Series B preferred unitholders		(49)	(49)		(49)
Distributions to participating securities		(2)	(2)		(3)
Other		_			(3)
Net income/(loss) allocated to common unitholders (1)	\$	393	\$ (2,790)	\$	1,967
Basic weighted average common units outstanding		716	728		727
Basic net income/(loss) per common unit	<u>\$</u>	0.55	\$ (3.83)	\$	2.70
Diluted Net Income/(Loss) per Common Unit					
Net income/(loss) attributable to PAA	\$	593	\$ (2,590)	\$	2,171
Distributions to Series A preferred unitholders	(149)	(149)		_
Distributions to Series B preferred unitholders		(49)	(49)		(49)
Distributions to participating securities		(2)	(2)		(3)
Net income/(loss) allocated to common unitholders (1)	<u>\$</u>	393	\$ (2,790)	\$	2,119
Basic weighted average common units outstanding		716	728		727
Effect of dilutive securities:					
Series A preferred units		_	_		71
Equity-indexed compensation plan awards		_	_		2
Diluted weighted average common units outstanding		716	728		800
Diluted net income/(loss) per common unit	\$	0.55	\$ (3.83)	\$	2.65

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, including long-term inventory, primarily consists of crude oil and NGL in pipelines, storage facilities and railcars that are valued at the lower of cost or net realizable value, with cost determined using an average cost method within specific inventory pools. At the end of each reporting period, we assess the carrying value of our inventory and make any adjustments necessary to reduce the carrying value to the applicable net realizable value. Any resulting adjustments are a component of "Purchases and related costs" on our accompanying Consolidated Statements of Operations. During the year ended December 31, 2021, no adjustments were recorded. During the years ended December 31, 2020 and 2019, we recorded charges of \$233 million (of which \$40 million was associated with our long-term inventory) and \$11 million, respectively, related to the write down of our crude oil and NGL inventory due to declines in prices. A portion of these inventory valuation adjustments was offset by the recognition of gains on derivative instruments being utilized to hedge future sales of our crude oil and NGL inventory. Such gains were recorded to "Product sales revenues" in our accompanying Consolidated Statements of Operations. See Note 13 for discussion of our derivative and risk management activities.

Linefill and base gas in assets we own are recorded at historical cost and consist of crude oil, NGL and natural gas. We classify as linefill or base gas (i) our proportionate share of barrels used to fill a pipeline that we own such that when an incremental barrel is pumped into or enters a pipeline it forces product out at another location, (ii) barrels that represent the minimum working requirements in tanks and caverns that we own and (iii) natural gas required to maintain the minimum operating pressure of natural gas storage facilities we own. Following the sale of our Pine Prairie and Southern Pines natural gas storage facilities in August of 2021, we no longer own natural gas storage facilities. See Note 7 for additional information.

Linefill and base gas carrying amounts are reviewed for impairment in accordance with FASB guidance with respect to accounting for the impairment or disposal of long-lived assets. Carrying amounts that are not expected to be recoverable through future cash flows are written down to estimated fair value. See Note 6 for further discussion regarding impairment of long-lived assets. During 2021, 2020 and 2019, we did not recognize any material impairments of linefill and base gas.

Minimum working inventory requirements in third-party assets and other working inventory in our assets that are needed for our commercial operations are included within specific inventory pools in inventory (a current asset) in determining the average cost of operating inventory. At the end of each period, we reclassify the inventory not expected to be liquidated within the succeeding twelve months out of "Inventory," at the average cost of the applicable inventory pools, and into "Long-term inventory," which is reflected as a separate line item under "Other assets" on our Consolidated Balance Sheets.

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):

	December 31, 2021			December 31, 2020						
	Volumes	Unit of Measure		Carrying Value	Price/ Unit (1)	Volumes	Unit of Measure		Carrying Value	Price/ Unit (1)
Inventory										
Crude oil	8,041	barrels	\$	544	\$ 67.65	13,450	barrels	\$	441	\$ 32.79
NGL	6,982	barrels		234	\$ 33.51	12,302	barrels		199	\$ 16.18
Other	N/A			5	N/A	N/A			7	N/A
Inventory subtotal				783					647	
Linefill and base gas										
Crude oil	15,199	barrels		862	\$ 56.71	14,669	barrels		828	\$ 56.45
NGL	1,633	barrels		45	\$ 27.56	1,640	barrels		44	\$ 26.83
Natural gas (2)	_	Mcf		_	\$ _	25,576	Mcf		110	\$ 4.30
Linefill and base gas subtotal				907					982	
Long-term inventory										
Crude oil	2,973	barrels		209	\$ 70.30	2,499	barrels		111	\$ 44.42
NGL	1,135	barrels		44	\$ 38.77	1,185	barrels		19	\$ 16.03
Long-term inventory subtotal				253					130	
Total			\$	1,943				\$	1,759	

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

Note 6—Property and Equipment

In accordance with our capitalization policy, expenditures made to expand the existing operating and/or earnings capacity of our assets are capitalized. We also capitalize certain costs directly related to the construction of such assets, including related internal labor costs, engineering costs and interest costs. For the years ended December 31, 2021, 2020 and 2019, capitalized interest recorded to property and equipment was \$6 million, \$8 million and \$14 million, respectively. In addition, we capitalize interest related to investments in certain unconsolidated entities. See Note 9 for additional information. We also capitalize 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. Repair and maintenance expenditures incurred in order to maintain the day to day operation of our existing assets are expensed as incurred.

Base gas with a carrying value of \$110 million was included in the sale of our natural gas storage facilities, which closed in August 2021. See Note 7 for additional information.

Property and equipment, net is stated at cost and consisted of the following (in millions):

	Estimated Useful	December 31,				
	Lives (Years)		2021		2020	
Pipelines and related facilities (1)(2)	10 - 50	\$	12,765	\$	11,112	
Storage, terminal and rail facilities (2)	10 - 50		5,100		6,042	
Trucking equipment and other	2 - 15		502		524	
Construction in progress	N/A		248		272	
Office property and equipment	2 - 50		312		293	
Land and other	N/A		330		342	
Property and equipment, gross			19,257		18,585	
Accumulated depreciation			(4,354)		(3,974)	
Property and equipment, net		\$	14,903	\$	14,611	

⁽¹⁾ We include rights-of-way, which are intangible assets, in our Pipelines and related facilities amounts within property and equipment.

We calculate our depreciation using the straight-line method, based on estimated useful lives and salvage values of our assets. Depreciation expense for the years ended December 31, 2021, 2020 and 2019 was \$652 million, \$563 million and \$525 million, respectively. During the first quarter of 2021, we modified the useful lives of our Pipelines 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 year ended December 31, 2021, these reductions in useful lives increased depreciation expense by approximately \$72 million, which resulted in a decrease to both basic and diluted net income per common unit of approximately \$0.10 from what these amounts would have been absent the change in useful lives.

As of December 31, 2021, 2020 and 2019, we incurred liabilities for construction in progress that had not been paid of \$48 million, \$51 million and \$120 million, respectively.

Impairment of Long-Lived Assets (Held and Used)

Long-lived assets with recorded values that are not expected to be recovered through future cash flows are written down to estimated fair value in accordance with FASB guidance with respect to the accounting for the impairment or disposal of long-lived assets. Under this guidance, a long-lived asset is tested for impairment when events or circumstances indicate that its carrying value may not be recoverable. The carrying value of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. If the carrying value exceeds the sum of the undiscounted cash flows, an impairment loss equal to the amount by which the carrying value exceeds the fair value of the asset is recognized.

We periodically evaluate property and equipment and other long-lived assets for impairment when events or circumstances indicate that the carrying value of these assets may not be recoverable. The evaluation is highly dependent on the underlying assumptions of related cash flows. The subjective assumptions used to determine the existence of an impairment in carrying value include:

- whether there is an indication of impairment;
- the grouping of assets;
- the intention of "holding," "abandoning" or "selling" an asset;
- the forecast of undiscounted expected future cash flow over the asset's estimated useful life; and
- if an impairment exists, the fair value of the asset or asset group.

⁽²⁾ Useful lives changed to 10 to 50 years in 2021. See below for additional information.

In addition, when we evaluate property and equipment and other long-lived assets for recoverability, it may also be necessary to review related depreciation estimates and methods.

During the year ended December 31, 2021, we recognized approximately \$220 million of non-cash impairment losses related to certain crude oil storage terminal assets included in our Crude Oil segment. This amount is reflected in "(Cains)/losses on asset sales and asset impairments, net" on our Consolidated Statements of Operations. Decreased demand for our services related to changing market conditions resulted in decreases in expected future cash flows for certain of our assets, which was a triggering event that required us to assess the recoverability of our carrying value of such long-lived assets. As a result of our impairment review, we wrote off the portion of the carrying amount of these long-lived assets that exceeded their fair value. Our estimated fair value (which we consider a Level 3 measurement in the fair value hierarchy) was primarily based upon an assumption for the amount for which the relevant assets and land could be sold.

During the year ended December 31, 2020, we recognized approximately \$541 million of non-cash impairment losses, reflected in "(Gains)/losses on asset sales and asset impairments, net" on our Consolidated Statement of Operations.

Of our impairment losses, approximately \$415 million was associated with certain pipeline assets in our Crude Oil segment located in the Mid-Continent region. The macroeconomic and geopolitical conditions that occurred in 2020, 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, resulted in expected decreases in future cash flows for certain of our assets, which was a triggering event that required us to assess the recoverability of our carrying value of such long-lived assets. As a result of our impairment review, we wrote off the portion of the carrying amount of these long-lived assets that exceeded their fair value. Our estimated fair values (which we consider a Level 3 measurement in the fair value hierarchy) were based upon a discounted cash flow approach utilizing various assumptions and the application of a discount rate of approximately 14%, which represents our estimate of the cost of capital of a theoretical market participant. Such assumptions included (but were not limited to) (i) future commodity volumes (consistent with historical information and estimates of future drilling and completion activity), (ii) tariff rates, (iii) future commodity prices (based on relevant indices and applicable quality and location differentials), and (iv) estimated fixed and variable costs.

The remaining impairment losses were associated with idled or underutilized assets, primarily in our Crude Oil segment, including certain pipelines located in the Western region and other long-lived assets, for which it has been determined that it is unlikely that opportunities will exist in the future to recover our investment in these assets. We wrote off substantially all of the carrying value of these assets.

We did not recognize any material impairments during the year ended December 31, 2019.

Note 7—Acquisitions, Divestitures and Other Transactions

Joint Venture Transaction

In October 2021, we and Oryx Midstream completed the merger, in a cashless, debt-free transaction, of our respective Permian Basin assets, operations and commercial activities into a newly formed joint venture, the Permian JV. The Permian JV includes all of Oryx Midstream's Permian Basin assets and, with the exception of our long-haul pipeline systems and certain of our intra-basin terminal assets, the vast majority of our assets located within the Permian Basin. We own 65% of the Permian JV, operate the combined assets and reflect the Permian JV as a consolidated subsidiary in our consolidated financial statements.

The formation of the joint venture was accounted for as a business combination using the acquisition method of accounting. As the majority owner and the controlling entity, we are considered the acquirer and the transfer of our predecessor business to the joint venture was accounted for at historical cost, while the Oryx Midstream predecessor business was recorded based on the fair value of the assets acquired and liabilities assumed. In accordance with applicable accounting guidance, the fair value of Oryx Midstream's ownership interest in the joint venture following the formation of \$3.256 billion is utilized as the consideration transferred for the purchase price allocation.

The combination of the historical cost and fair value, discussed above, resulted in net assets of the joint venture of approximately \$7.575 billion upon formation. Oryx Midstream's 35% interest in the net assets of the Permian JV was recognized as noncontrolling interest in partners' capital. The difference between the noncontrolling interest recognized and the fair value of Oryx Midstream's assets acquired and liabilities assumed was recorded as an increase to our partners' capital excluding noncontrolling interests.

The following table presents the amounts recognized in partners' capital associated with this transaction (in millions):

	Rec	cognized Amount
Noncontrolling interests	\$	2,651
Partners' capital, excluding noncontrolling interests		605
	\$	3,256

The fair value of the \$3.256 billion consideration is a Level 3 measurement in the fair value hierarchy and was determined by valuing both the enterprise value of Oryx Midstream's Permian Basin business and the enterprise value of our Permian Basin assets that were contributed to the joint venture. The enterprise value of Oryx Midstream's Permian Basin business was calculated by weighting the results of (i) a discounted cash flow ("DCF") approach and (ii) a guideline public company method ("GPCM"). The value of our Permian Basin assets that were contributed to the joint venture was based on a GPCM. The DCF approach utilized a discount rate of 11.75%, based on our estimate of the risk that a theoretical market participant would assign to the business. The projection of future crude volumes gathered and transported was also a key assumption in the DCF approach and was based on projected rig activity on the associated acreage. The GPCM applies market multiples to estimated earnings to derive the fair value. The GPCM values for Oryx Midstream's Permian Basin business and for our Permian Basin assets that were contributed to the joint venture assumed market multiples ranging from 9.5 to 11.0, which were derived from assumptions of market multiples for similar businesses.

The determination of the fair value of the assets acquired and liabilities assumed was estimated in accordance with the applicable accounting guidance. The analysis was performed based on estimates that are reflective of market participant assumptions. The determination of these values is preliminary, pending finalization of working capital balances, and we expect to finalize our fair value determination in 2022. The following table reflects our preliminary determination of the fair value of those assets and liabilities (in millions):

Identifiable Assets Acquired and Liabilities Assumed	Estimated Useful Lives (in years)	Re	cognized Amount
Property and equipment	3-30	\$	1,886
Intangible assets	20		1,247
Investment in unconsolidated entities	N/A		103
Linefill	N/A		5
Working capital and other assets and liabilities	N/A		15
		\$	3,256

The fair value of the tangible assets is a Level 3 measurement in the fair value hierarchy and was determined using a cost approach based on costs incurred on similar recent construction projects. The fair value of the intangible assets is also a Level 3 measurement in the fair value hierarchy and was determined by applying a discounted cash flow approach. Such approach utilized a discount rate of approximately 16%, based on our estimate of the risk that a theoretical market participant would assign to the respective intangible assets. The projection of future crude oil volumes gathered and transported was also a key assumption in the valuation of the intangible assets and was based on projected rig activity on the associated acreage.

The fair value of intangible assets is comprised of customer relationships that will be amortized over their useful lives, which have a remaining weighted average life of approximately 20 years. The value assigned to such intangible assets will be amortized to earnings under the declining balance method of amortization. Amortization expense was approximately \$28 million during the year ended December 31, 2021, and the future amortization expense through 2026 is estimated as follows (in millions):

2022	\$ 142
2023	\$ 138
2024	\$ 127
2025	\$ 117
2026	\$ 106

During the year ended December 31, 2021, we incurred approximately \$17 million of transaction-related costs associated with the joint venture formation transaction. Such costs are reflected as a component of "General and administrative expenses" on our Consolidated Statements of Operations.

Quarterly distributions of available cash from the Permian JV to us and Oryx Midstream are subject to a tiered modified sharing arrangement ("MSA") for up to ten years. Pursuant to the terms of the governing documents for the Permian JV, the MSA will terminate in October 2031, or sooner if Oryx Midstream exercises its right to terminate the MSA at any time by delivery of written notice to us. Upon termination of the MSA, quarterly distributions of available cash will be paid 65% to PAA and 35% to Oryx.

Under the MSA, distributions will be allocated as follows (in millions):

	Available Cash	Distributions Percentages		
Tier	Annualized	PAA	Oryx	
1	Up to \$300	50%	50%	
2	\$300 - \$428	100%	%	
3	\$428 - \$815	65%	35%	
4	\$815 and above	70%	30%	

Oryx Midstream is a portfolio company of Stonepeak Infrastructure Partners ("Stonepeak"). Affiliates of Stonepeak own approximately 8.9% of our outstanding Series A preferred units, which equates to less than 1% of our outstanding common units and Series A preferred units (our "common unit equivalents") combined.

Pro Forma and Other Financial Results

Financial results of the Permian JV have been included in the results of operations within the Crude Oil segment since the date of the formation. Disclosure of the revenues and earnings from the Oryx Midstream predecessor business for the period subsequent to the joint venture formation is not practicable as it is not being operated as a standalone subsidiary. The following selected unaudited pro forma results of operations were derived from the historical financial statements of PAA and Oryx Midstream, and gives effect to the joint venture formation as if it had occurred on January 1, 2020. The pro forma results of operations do not include any cost savings or other synergies that may result from the Permian JV or any estimated costs that have been or will be incurred by us to integrate Oryx Midstream's assets. These results are not necessarily indicative of the results that might have actually occurred had the merger taken place on January 1, 2020; furthermore, this financial information is not intended to be a projection of future results (in millions, except per unit amounts):

	Year ended	December 31	•
	2021	2	2020
Total revenues	\$ 42,359	\$	23,536
Net income/(loss) attributable to PAA	\$ 524	\$	(2,898)
Net income/(loss) allocated to common unitholders	\$ 324	\$	(3,098)
Basic and diluted net income/(loss) per common unit	\$ 0.45	\$	(4.26)

Asset Exchange

In June 2021, we closed on an asset exchange agreement (the "Asset Exchange") with Inter Pipeline Ltd., through which we acquired additional interests in two straddle plants included in our NGL segment that we currently operate, in exchange for a pipeline and related storage and truck offload facilities previously included in our Crude Oil segment and cash consideration of \$32 million, including working capital and other adjustments. We recognized a gain of \$106 million on the divestiture of the pipeline and related storage and truck offload facilities, which is included in " (Cains)/losses on asset sales and asset impairments, net" on our Consolidated Statement of Operations, based on the difference between the fair value of the divested assets and their carrying value.

Acquisitions

In February 2020, we acquired Felix Midstream LLC, now known as FM Cathering LLC ("FM Gathering") from Felix Energy Holdings II, LLC for approximately \$300 million, net of working capital and other adjustments. FM Cathering owns and operates a newly constructed crude oil gathering system in the Delaware Basin, with associated crude oil storage and truck offloading capacity, and is supported by a long-term acreage dedication. The assets acquired are included in our Crude Oil segment. This acquisition was accounted for using the acquisition method of accounting and the determination of the fair value of the assets acquired and liabilities assumed was determined in accordance with the applicable accounting guidance. The assets acquired primarily consisted of property and equipment of \$115 million and intangible assets of \$187 million. The fair value of the tangible assets is a Level 3 measurement in the fair value hierarchy and was determined by applying a discounted cash flow approach utilized discount rates varying from 18% to 19%, based on our estimate of the risk that a theoretical market participant would assign to the respective intangible assets.

During the second quarter of 2019, we acquired a crude oil terminal, including tank bottoms and linefill, in Cushing, Oklahoma for cash consideration of \$44 million, which was accounted for as an asset acquisition.

Divestitures

In August 2021, we sold our Pine Prairie and Southern Pines natural gas storage facilities, which were included in our Crude Oil segment for periods prior to the sale, for net proceeds of approximately \$850 million, including working capital adjustments. Prior to the sale, we classified the assets related to this transaction (primarily "Property and equipment"), valued at the lower of the carrying amount or fair value less costs to sell, of approximately \$832 million as assets held for sale with approximately \$18 million of deferred losses on hedges remaining in other comprehensive income until the closing of the sale. Upon classification of the assets to held for sale in the second quarter of 2021, we recognized a non-cash impairment loss of \$475 million which is included in "(Gains)/losses on asset sales and asset impairments, net" on our Consolidated Statement of Operations.

During the year ended December 31, 2020, we received cash proceeds of \$451 million, primarily from the sale of:

- · certain Los Angeles Basin crude oil terminals previously included in our Crude Oil segment for proceeds of approximately \$200 million, subject to certain adjustments;
- certain NGL terminals previously included in our NGL segment for proceeds of approximately \$163 million (including \$22 million related to a multi-year supply agreement related to the sale), subject to certain adjustments; and
- a 10% ownership interest in Saddlehorn Pipeline Company, LLC ("Saddlehorn") for proceeds of approximately \$78 million, including working capital adjustments (see Note 9 for additional information).

We recognized a loss related to these assets sales of \$178 million, including non-cash impairments recognized upon classification to assets held for sale, for the year ended December 31, 2020. Such amount is included in "(Gains)/losses on asset sales and asset impairments, net" on our Consolidated Statement of Operations.

During the year ended December 31, 2019, we sold certain non-core assets for total proceeds of \$77 million that primarily consisted of a storage terminal in North Dakota, which is reflected in our Crude Oil segment for the period prior to the sale. For the year ended December 31, 2019, we recognized a net loss related to these asset sales of \$16 million, which is comprised of gains of \$31 million and losses of \$47 million. Such amounts are included in "(Gains)/losses on asset sales and asset impairments, net" on our Consolidated Statement of Operations.

Note 8-Goodwill

Goodwill represents the future economic benefits arising from assets acquired in a business combination that are not individually identified and separately recognized.

In accordance with FASB guidance, we test goodwill to determine whether an impairment has occurred at least annually (as of June 30) and on an interimbasis if it is more likely than not that a reporting unit's fair value is less than its carrying value. Goodwill is tested for impairment at a level of reporting referred to as a reporting unit. A reporting unit is an operating segment or one level below an operating segment for which discrete financial information is available and regularly reviewed by segment management. Our reporting units are our operating segments. FASB guidance provides for a quantitative approach to testing goodwill for impairment; however, we may first assess certain qualitative factors to determine whether it is necessary to perform the quantitative goodwill impairment test. In the quantitative test, we compare the fair value of the reporting unit with the respective book values, including goodwill, by using an income approach based on a discounted cash flow model. This approach requires us to make long-term forecasts of future revenues, expenses and other expenditures. Those forecasts require the use of various assumptions and estimates, the most significant of which are net revenues (total revenues less purchases and related costs), operating expenses, general and administrative expenses and the weighted average cost of capital. Fair value of the reporting units is determined using significant unobservable inputs, or Level 3 inputs in the fair value hierarchy. When the fair value is greater than book value, then the reporting unit's goodwill is not considered impaired. If the book value is greater than fair value, then goodwill is impaired by the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying value of goodwill.

During the first quarter of 2020, we recorded impairment losses of \$2.515 billion related to goodwill. Our market capitalization declined significantly during the first quarter driven by macroeconomic and geopolitical conditions that occurred in 2020, 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, that resulted in expected decreases in future cash flows for certain of our assets, which we concluded was a triggering event that required us to perform a quantitative impairment test as of March 31, 2020, utilizing a discounted cash flow approach. We applied a discount rate of approximately 14% in the determination of the fair value of each of our reporting units, which represents our estimate of the cost of capital of a theoretical market participant as of March 31, 2020. The fair values of the reporting units are Level 3 measurements in the fair value hierarchy and were based on various inputs, as discussed below. The discounted cash flows for each reporting unit were based on six years of projected cash flows and terminal values that we believe would be applied by a theoretical market participant in similar market transactions. The discounted cash flows for the respective reporting units utilized various other assumptions, including, but not limited to (i) volumes (based on historical information and estimates of future drilling and completion activity, as well as expectations of future demand recovery), (ii) tariff and storage rates, (iii) future commodity prices (based on relevant indices and applicable quality and location differentials), and (iv) estimated fixed and variable costs. We used a range of cash flows for the discounted cash flow calculations based on differing potential market scenarios, but for each of the reporting units, the ultimate outcome of the impairment test was unchanged by the various points within the range of ca

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

	Crude Oil		NGL	Total
Balance at December 31, 2019	\$	2,300	\$ 240	\$ 2,540
Acquisitions		2		2
Goodwill, gross	\$	2,302	\$ 240	\$ 2,542
Impairments		(2,287)	(228)	(2,515)
Foreign currency translation adjustments		(15)	(12)	(27)
Accumulated impairment losses		(2,302)	(240)	(2,542)
Balance at December 31, 2020	\$		\$ —	\$ _

Note 9-Investments in Unconsolidated Entities

Investments in entities over which we have significant influence but not control are accounted for under the equity method. We do not consolidate any part of the assets or liabilities of our equity investees. Our share of net income or loss is reflected as one line item on our Consolidated Statements of Operations entitled "Equity earnings in unconsolidated entities" and will increase or decrease, as applicable, the carrying value of our investments in unconsolidated entities on our Consolidated Balance Sheets. We evaluate our equity investments for impairment in accordance with FASB guidance with respect to the equity method of accounting for investments in common stock. An impairment of an equity investment results when factors indicate that the investment's fair value is less than its carrying value and the reduction in value is other than temporary in nature.

Our investments in unconsolidated entities consisted of the following (in millions, except percentage data):

		Ownership Interest at December 31.	Investmen Decem	nce
Entity (1)	Type of Operation	2021	2021	2020
BridgeTex Pipeline Company, LLC ("BridgeTex")	Crude Oil Pipeline	20%	\$ 406	\$ 421
Cactus II Pipeline LLC ("Cactus II")	Crude Oil Pipeline	65%	737	752
Capline Pipeline Company LLC	Crude Oil Pipeline (2)	54%	531	514
Diamond Pipeline LLC ("Diamond")	Crude Oil Pipeline	50%	464	480
Eagle Ford Pipeline LLC ("Eagle Ford Pipeline")	Crude Oil Pipeline	50%	363	372
Eagle Ford Terminals Corpus Christi LLC ("Eagle Ford Terminals")	Crude Oil Terminal and Dock	50%	120	122
OMOGJVLLC ⁽³⁾	Crude Oil Pipeline	40%	102	_
Saddlehorn	Crude Oil Pipeline	30%	209	208
White Cliffs Pipeline, LLC	Crude Oil Pipeline	36%	171	192
Wink to Webster Pipeline LLC ("W2W Pipeline") (4)	Crude Oil Pipeline (5)	16%	345	330
Other investments			357	373
Total Investments in Unconsolidated Entities			\$ 3,805	\$ 3,764

- (1) The financial results from these entities are reported in our Crude Oil segment.
- (2) The Capline pipeline was out of service during 2020 and a majority of 2021 pending the reversal of the pipeline system. The pipeline reversal project was completed with interim service beginning in mid-December 2021 and full service beginning in January 2022.
- Our ownership in this entity was acquired as part of the assets contributed by Oryx Midstream in the formation of the Permian JV in October 2021. See Note 7 for additional information.
- (4) Although we own less than 20% of W2W Pipeline, we use the equity method to account for the investment because we believe we have significant influence over the financial and operating decisions of the company.
- (5) The pipeline system was in partial service during 2021 and another phase of the pipeline construction project was completed in the first quarter of 2022.

Impairments

During the year ended December 31, 2020, we recognized losses as a result of the write-down of certain of our investments in unconsolidated entities, as discussed further below. Such amounts are reflected in "Gain on/(impairment of) investments in unconsolidated entities, net" on our Consolidated Statement of Operations.

STACK. During the third quarter of 2020, we determined that there was an other-than-temporary impairment of our investment in STACK Pipeline LLC as a result of a continued decline of drilling activity and related volumes of crude oil in its area of operation. We recognized a loss of \$91 million related to the write-down of the portion of the carrying amount of our investment that exceeded its fair value. The estimated fair value (which we consider a Level 3 measurement in the fair value hierarchy) was based on a discounted cash flow approach utilizing various assumptions and the application of a discount rate of approximately 14%, which represents our estimate of the cost of capital of a theoretical market participant. Such assumptions included (but were not limited to) (i) volumes (consistent with historical information and estimates of future drilling and completion activity), (ii) tariff rates, (iii) future commodity prices (based on relevant indices and applicable quality and location differentials), and (iv) estimated fixed and variable costs.

Red Oak. In June 2019, we formed Red Oak Pipeline LLC ("Red Oak"), a joint venture with a subsidiary of Phillips 66 and in which we own a 50% interest, to develop a new crude oil pipeline project. In 2020, the partners of Red Oak determined that the project would not proceed as previously contemplated. We determined that there was an other-than-temporary impairment of our investment in Red Oak, and we recognized a loss of \$69 million related to the write-down of our investment in Red Oak to the estimated residual value of our share of the net assets during the second quarter of 2020.

Other investments. During the first quarter of 2020, we also recognized a loss of \$43 million related to the write-down of certain of our investments included in "Other investments" in the table above due to an other-than-temporary impairment related to a decline in market conditions.

Formations

Capline LLC. During the first quarter of 2019, the owners of the Capline pipeline system contributed their undivided joint interests in the system to a newly formed entity, Capline Pipeline Company LLC ("Capline LLC"), in exchange for equity interests in such entity. After the contribution, Capline LLC owns 100% of the pipeline system. Each owner's undivided joint interest in the Capline pipeline system prior to the transaction is equal to each owner's equity interest in Capline LLC. Although we own a majority of Capline LLC's equity, we do not have a controlling financial interest in Capline LLC because the other members have substantive participating rights. Therefore, we account for our ownership interest in Capline LLC as an equity method investment.

Under applicable accounting rules, the transaction resulted in a "loss of control" of our undivided joint interest, which was derecognized and contributed to Capline LLC. The "loss of control" required us to measure our equity interest in Capline LLC at fair value. At the time of the transaction, our 54% undivided joint interest in the Capline pipeline system had a carrying value of \$175 million, which primarily related to property and equipment included in our Crude Oil segment. We determined the fair value of our investment in Capline LLC to be approximately \$444 million, resulting in the recognition of a gain of \$269 million during the year ended December 31, 2019. Such gain is included in "Gain on/(impairment of) investment in unconsolidated entities, net" on our Consolidated Statement of Operations.

The fair value of our investment in Capline LLC was based on an income approach utilizing a discounted cash flow analysis. The cash flow forecasts require the use of various assumptions and estimates which include those related to the timing and amount of capital expenditures, the expected tariff rates and volumes of crude oil, and the terminal value. We probability-weighted various forecasted cash flow scenarios utilized in the analysis when we considered the possible outcomes. We used a discount rate representing our estimate of the risk adjusted discount rate that would be used by market participants. If shipper interest varies from the levels assumed in our model, the related cash flows, and thus the fair value of our investment, could be materially impacted. The fair value of our investment was determined using significant unobservable inputs, or Level 3 inputs in the fair value hierarchy.

Divestitures

Saddlehorn. In February 2020, we sold a 10% ownership interest in Saddlehom for proceeds of approximately \$78 million and have retained a 30% ownership interest. We recorded a gain of approximately \$21 million related to this sale, which is included in "Gain on/(impairment of) investments in unconsolidated entities, net" on our Consolidated Statement of Operations. We continue to account for our remaining interest under the equity method of accounting.

Distributions

Distributions received from unconsolidated entities are classified based on the nature of the distribution approach, which looks to the activity that generated the distribution. We consider distributions received from unconsolidated entities as a return on investment in those entities to the extent that the distribution was generated through operating results, and therefore classify these distributions as cash flows from operating activities in our Consolidated Statement of Cash Flows. Other distributions received from unconsolidated entities are considered a return of investment and classified as cash flows from investing activities on the Consolidated Statement of Cash Flows.

Contributions

We generally fund our portion of development, construction or capital investment projects of our equity method investees through capital contributions. Our contributions to these entities increase the carrying value of our investments and are reflected in our Consolidated Statements of Cash Flows as cash used in investing activities. During the years ended December 31, 2021, 2020 and 2019, we made cash contributions of \$82 million, \$445 million and \$504 million, respectively, to certain of our equity method investees. In addition, we capitalized interest of \$12 million, \$16 million and \$20 million during the years ended December 31, 2021, 2020 and 2019, respectively, related to contributions to unconsolidated entities for projects under development and construction.

Basis Differences

Our investments in unconsolidated entities exceeded our share of the underlying equity in the net assets of such entities by \$223 million and \$170 million at December 31, 2021 and 2020, respectively. Such basis differences are included in the carrying values of our investments on our Consolidated Balance Sheets. The portion of the basis differences attributable to depreciable or amortizable assets is amortized on a straight-line basis over the estimated useful life of the related assets, which reduces "Equity earnings in unconsolidated entities" on our Consolidated Statements of Operations. The portion of the basis differences attributable to goodwill is not amortized. The majority of the basis difference at both December 31, 2021 and 2020 was attributable to goodwill related to our ownership interest in BridgeTex and Capline LLC with the remaining basis difference primarily related to capitalized interest incurred during construction of the assets of our unconsolidated entities.

Summarized Financial Information of Unconsolidated Entities

Combined summarized financial information for all of our unconsolidated entities is shown in the tables below (in millions). None of our unconsolidated entities have noncontrolling interests.

	Dece		
	2021	20	020
Current assets	\$ 509	\$	580
Noncurrent assets	\$ 8,879	\$	8,769
Current liabilities	\$ 366	5 \$	343
Noncurrent liabilities	\$ 15	\$	10

		Year I	Ended December 31,	
	2021		2020	2019
Revenues	\$ 1,320	\$	1,360	\$ 1,469
Operating income	\$ 505	\$	828	\$ 994
Net income	\$ 506	\$	826	\$ 995

Note 10-Intangible Assets, Net

Intangible assets, net of accumulated amortization, consisted of the following (in millions):

			December 31, 2021					De	ecember 31, 2020									
	Estimated Useful Lives (Years)		Cost		Cost		Cost		Cost		Accumulated Cost Amortization		Net (Accumulated Cost Amortization			Net
Customer contracts and relationships (1)	3-31	\$	2,445	\$	(510)	\$ 1,935	\$	1,291	\$	(519)	\$ 772							
Other agreements	1 - 70		36		(11)	25		63		(30)	33							
Intangible assets (2)		\$	2,481	\$	(521)	\$ 1,960	\$	1,354	\$	(549)	\$ 805							

The increase in intangible assets related to Customer contracts and relationships in 2021 is associated with the assets acquired in the formation of the Permian JV. See Note 7 for additional information.

Intangible assets that have finite lives are tested for impairment when events or circumstances indicate that the carrying value may not be recoverable. We did not recognize any impairments of finite-lived intangible assets during the three years ended December 31, 2021.

Amortization expense for finite-lived intangible assets for the years ended December 31, 2021, 2020 and 2019 was \$122 million, \$90 million and \$76 million, respectively. We estimate that our amortization expense related to finite-lived intangible assets for the next five years will be as follows (in millions):

2022	\$ 240
2023	\$ 232
2024	\$ 220
2025	\$ 207
2026	\$ 187

⁽²⁾ We include rights-of-way, which are intangible assets, in our pipeline and related facilities amounts within property and equipment. See Note 6 for a discussion of property and equipment.

Note 11—Debt

Debt consisted of the following (in millions):

		ember 31, 2021	December 31, 2020
SHORT-TERM DEBT			
Commercial paper notes, bearing a weighted-average interest rate of 0.7% (1)	\$	_	\$ 547
Senior secured hedged inventory facility, bearing a weighted-average interest rate of 1.2% (1)		_	167
Senior notes:			
3.65% senior notes due June 2022 ⁽²⁾		750	_
Other		72	117
Total short-term debt		822	831
LONG-TERM DEBT			
Senior notes:			
3.65% senior notes due June 2022		_	750
2.85% senior notes due January 2023		400	400
3.85% senior notes due October 2023		700	700
3.60% senior notes due November 2024		750	750
4.65% senior notes due October 2025		1,000	1,000
4.50% senior notes due December 2026		750	750
3.55% senior notes due December 2029		1,000	1,000
3.80% senior notes due September 2030		750	750
6.70% senior notes due May 2036		250	250
6.65% senior notes due January 2037		600	600
5.15% senior notes due June 2042 ⁽³⁾		499	499
4.30% senior notes due January 2043 ⁽³⁾		348	348
4.70% senior notes due June 2044 ⁽³⁾		687	687
4.90% senior notes due February 2045 ⁽³⁾		649	649
Unamortized discounts and debt issuance costs		(54)	(62)
Senior notes, net of unamortized discounts and debt issuance costs		8,329	9,071
Other long-term debt:			
GO Zone term loans, net of debt issuance costs of \$1, bearing a weighted-average interest rate of 1.3% (4)		_	199
Other		69	112
Total long-term debt	<u></u>	8,398	9,382
Total debt (5)	\$	9,220	\$ 10,213

⁽¹⁾ We classified these commercial paper notes and 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.

⁽²⁾ In January 2022, we provided notice of our intention to redeem these senior notes on March 1, 2022.

During the year ended December 31, 2020, we repurchased \$17 million of our outstanding senior notes on the open market and recognized a gain of \$3 million on these transactions, which is included in "Other income/(expense), net" on our Consolidated Statement of Operations.

- (4) The GO Zone term loans were initially assumed by one of our subsidiaries in connection with the acquisition of the Southern Pines natural gas storage facility. The loans were repaid in August 2021 in connection with the sale of that facility. See Note 7 for additional information.
- Our fixed-rate senior notes had a face value of approximately \$9.1 billion at both December 31, 2021 and 2020. We estimated the aggregate fair value of these notes to be approximately \$9.9 billion at both December 31, 2021 and 2020. 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.

Commercial Paper Program

We have a commercial paper program under which we may issue (and have outstanding at any time) up to \$2.7 billion in the aggregate of privately placed, unsecured commercial paper notes. Such notes are backstopped by our senior unsecured revolving credit facility and our senior secured hedged inventory facility; as such, any borrowings under our commercial paper program reduce the available capacity under these facilities.

Credit Agreements

Senior secured hedged inventory facility. In August 2021, we entered into an amended credit agreement which replaced our \$1.4 billion senior secured hedged inventory facility scheduled to mature in August 2022 with a \$1.35 billion senior secured hedged inventory facility with an initial maturity date of August 2024. Subject to obtaining additional or increased lender commitments and other terms and conditions, the committed capacity of the facility may be increased to \$1.9 billion. The amended credit agreement provides for the issuance of letters of credit of up to \$400 million. Proceeds from the facility are primarily used to finance purchased or stored hedged inventory, including NYMEX and ICE margin deposits. Such obligations under the committed facility are secured by the financed inventory and the associated accounts receivable and are repaid from the proceeds of the sale of the financed inventory. Borrowings accrue interest based, at our election, on certain floating rate indices as defined in the credit agreement, in each case plus a margin based on our credit rating at the applicable time. The amended credit agreement also provides for one or more one-year extensions, subject to applicable approval and other terms and conditions.

Senior unsecured revolving credit facility. In August 2021, we entered into a new unsecured credit agreement that provides for a senior unsecured revolving credit facility with a committed borrowing capacity of \$1.35 billion, of which \$400 million is available for the issuance of letters of credit. The new credit agreement replaced our previous credit agreement that provided for a \$1.6 billion senior unsecured revolving credit facility and was scheduled to mature in August 2024. Subject to obtaining additional or increased lender commitments and other terms and conditions, the committed capacity may be increased to \$2.1 billion. Borrowings accrue interest based, at our election, on certain floating rate indices as defined in the credit agreement, in each case plus a margin based on our credit rating at the applicable time. The new credit agreement has an initial maturity date of August 2026 and provides for one or more one-year extensions, subject to applicable approval and other terms and conditions.

GO Zone term loans. In August 2018, we entered into an agreement for two \$100 million term loans (the "GO Zone term loans") from the remarketing of our \$100 million Mississippi Business Finance Corporation Gulf Opportunity Zone Industrial Development Revenue Bonds (PAA Natural Gas Storage, L.P. Project), Series 2009 and our \$100 million Mississippi Business Finance Corporation Gulf Opportunity Zone Industrial Development Revenue Bonds (PAA Natural Gas Storage, L.P. Project), Series 2010 (collectively, the "GO Bonds"). The GO Zone term loans accrued interest, based on certain floating rate indices, in accordance with the interest payable on the related GO Bonds as provided in the GO Bonds Indenture pursuant to which such GO Bonds are issued and governed. The GO Zone term loans were repaid in August 2021 in connection with the sale of the Southern Pines natural gas storage facility. See Note 7 for additional information.

Senior Notes

Our senior notes are co-issued, jointly and severally, by Plains All American Pipeline, L.P. and a 100%-owned consolidated finance subsidiary (neither of which have independent assets or operations) and are unsecured senior obligations of such entities and rank equally in right of payment with existing and future senior indebtedness of the issuers. We may, at our option, redeem any series of senior notes at any time in whole or from time to time in part, prior to maturity, at the redemption prices described in the indentures governing the senior notes. Our senior notes are not guaranteed by any of our subsidiaries.

Senior Notes Issuances. The table below summarizes our issuances of senior unsecured notes during the three years ended December 31, 2021 (in millions):

Year	Description	Maturity	Face Value		Face Value		Face Value		Interest Payment Dates
2020	3.80% Senior Notes issued at 99.794% of face value	September 2030	\$	750	March 15 and September 15				
2019	3.55% Senior Notes issued at 99.801% of face value	December 2029	\$	1,000	June 15 and December 15				

Senior Notes Repayments. During the three years ended December 31, 2021, we repaid the following senior unsecured notes in full (in millions):

Year	Description	Repayment Date	_
2020	\$600 million 5.00% Senior Notes due February 2021	November 2020	(1)
2019	\$500 million 2.60% Senior Notes due December 2019	November 2019	(2)
2019	\$500 million 5.75% Senior Notes due January 2020	December 2019	(2)

⁽¹⁾ We repaid these senior notes with proceeds from our 3.80% senior notes issued in June 2020 and cash on hand.

Maturities

The weighted average maturity of our senior notes outstanding at December 31, 2021 was approximately 10 years. The following table presents the aggregate contractually scheduled maturities of such senior notes for the next five years and thereafter. The amounts presented exclude unamortized discounts and debt issuance costs.

Calendar Year	Payment (in millions)
2022	\$ 750
2023	\$ 1,100
2024	\$ 750
2025	\$ 1,000
2026	\$ 750
Thereafter	\$ 4,783

⁽²⁾ We repaid these senior notes with proceeds from our 3.55% senior notes issued in September 2019 and cash on hand.

Covenants and Compliance

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 the indentures governing our senior notes contain cross-default provisions. Our credit agreements prohibit declaration or payments of distributions on, or purchases or redemptions of, units if any default or event of default is continuing. In addition, the agreements contain various covenants limiting our ability to, among other things:

- · grant liens on certain property;
- · incur indebtedness, including finance leases;
- · sell substantially all of our assets or enter into a merger or consolidation;
- · engage in certain transactions with affiliates; and
- · enter into certain burdensome agreements.

The credit agreements for our senior unsecured revolving credit facility and senior secured hedged inventory facility treat a change of control as an event of default and also require us to maintain a debt-to-EBITDA coverage ratio that, on a trailing four-quarter basis, will not be greater than 5.00 to 1.00 (or 5.50 to 1.00 on all outstanding debt during an acquisition period (generally, the period consisting of three fiscal quarters following an acquisition greater than \$150 million)). For covenant compliance purposes, Consolidated EBITDA may include certain adjustments, including those for material projects and certain non-recurring expenses. Additionally, letters of credit and borrowings to fund hedged inventory and margin requirements are excluded when calculating the debt coverage ratio.

A default under our credit agreements or indentures would permit the lenders to accelerate the maturity of the outstanding debt. As long as we are in compliance with the provisions contained in our credit agreements, our ability to make distributions of available cash is not restricted. As of December 31, 2021, we were in compliance with the covenants contained in our credit agreements and indentures.

Borrowings and Repayments

Total borrowings under our credit facilities and commercial paper program for the years ended December 31, 2021, 2020 and 2019 were approximately \$32.5 billion, \$29.3 billion, and \$13.3 billion, respectively. Total repayments under our credit facilities and commercial paper program were approximately \$33.2 billion, \$29.0 billion and \$12.9 billion for the years ended December 31, 2021, 2020 and 2019, 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 merchant activities, we provide certain suppliers with irrevocable standby letters of credit to secure our obligation for the purchase and transportation of crude oil and NGL. These letters of credit are issued under our senior unsecured revolving credit facility and our senior secured hedged inventory facility, and our liabilities with respect to these purchase obligations are recorded in accounts payable on our balance sheet in the month the crude oil or NGL is purchased. Generally, these letters of credit are issued for periods of up to seventy days and are terminated upon completion of each transaction. Additionally, we issue letters of credit to support insurance programs, derivative transactions, including hedging-related margin obligations, and construction activities. At December 31, 2021 and 2020, we had outstanding letters of credit of \$98 million and \$129 million, respectively.

Debt Issuance Costs

Costs incurred in connection with the issuance of senior notes are recorded as a direct deduction from the related debt liability and are amortized using the straight-line method over the term of the related debt. Use of the straight-line method does not differ materially from the "effective interest" method of amortization.

Note 12—Partners' Capital and Distributions

Units Outstanding

At December 31, 2021, partners' capital consisted of outstanding common units and Series A and Series B preferred units, which represent limited partner interests in us, which give the holders thereof the right to participate in distributions and to exercise the other rights or privileges as outlined in our partnership agreement. Our general partner has a non-economic interest in us.

Series A Preferred Units

Our Series A preferred units were issued in a private placement in 2016 at a price of \$26.25 per unit (the "Issue Price"). The Series A preferred units represent limited partner interests in us, rank pari passu with our Series B preferred units, and senior to our common units and to each other class or series of our equity securities with respect to distribution rights and rights upon liquidation. The holders of the Series A preferred units receive cumulative quarterly distributions, subject to customary antidilution adjustments, equal to \$0.525 per unit (\$2.10 per unit annualized).

The holders may convert their Series A preferred units into common units, generally on a one-for-one basis and subject to customary anti-dilution adjustments, at any time, in whole or in part, subject to certain minimum conversion amounts (and not more often than once per quarter). We may convert the Series A preferred units into common units at any time (but not more often than once per quarter), in whole or in part, subject to certain minimum conversion amounts, if the closing price of our common units is greater than 150% of the Issue Price for the preceding 20 trading days. The Series A preferred units vote on an as-converted basis with our common units and have certain other class voting rights with respect to any amendment to our partnership agreement that would adversely affect any rights, preferences or privileges of the Series A preferred units. In addition, upon certain events involving a change of control, the holders of the Series A preferred units may elect, among other potential elections, to convert the Series A preferred units into common units at the then applicable conversion rate.

For a period of 30 days following (a) the fifth anniversary of the January 28, 2016 issuance date (the "Issuance Date") of the Series A preferred units and (b) each subsequent anniversary of the Issuance Date, the holders of the Series A preferred units, acting by majority vote, may make a one-time election to reset the Series A preferred unit distribution rate to equal the then applicable rate of ten-year U.S. Treasury Securities plus 5.85% (the "Preferred Distribution Rate Reset Option"). The Preferred Distribution Rate Reset Option is accounted for as an embedded derivative. See Note 13 for additional information. If the holders of the Series A preferred units have exercised the Preferred Distribution Rate Reset Option, then, at any time following 30 days after the sixth anniversary of the Issuance Date, we may redeem all or any portion of the outstanding Series A preferred units in exchange for cash, common units (valued at 95% of the volume-weighted average price of our common units for a trading day period specified in our partnership agreement) or a combination of cash and common units at a redemption price equal to 110% of the Issue Price, plus any accrued and unpaid distributions.

Series B Preferred Units

Our Series B Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units representing limited partner interests in us (the "Series B preferred units") were issued in 2017 at a price to the public of \$1,000 per unit. Our Series B preferred units represent perpetual equity interests in us, and they have no stated maturity or mandatory redemption date and are not redeemable at the option of the holders under any circumstances. Holders of the Series B preferred units generally have no voting rights, except for limited voting rights with respect to (i) potential amendments to our partnership agreement that would have a material adverse effect on the existing preferences, rights, powers or duties of the Series B preferred units, (ii) the creation or issuance of any parity securities if the cumulative distributions payable on then outstanding Series B preferred units are in arrears, (iii) the creation or issuance of any senior securities and (iv) the payment of distributions to our common units are in arrears, (iii) the creation or a liquidation event, pari passu with our outstanding Series A preferred units and senior to our common units.

The Series B preferred units have a liquidation preference of \$1,000 per unit. Holders of our Series B preferred units are entitled to receive, when, as and if declared by our general partner out of legally available funds for such purpose, cumulative semiannual or quarterly cash distributions, as applicable. Distributions on the Series B preferred units accrue and are cumulative from October 10, 2017, the date of original issue, and are payable semiannually in arrears on the 15th day of May and November through and including November 15, 2022, and after November 15, 2022, quarterly in arrears on the 15th day of February, May, August and November of each year. The initial distribution rate for the Series B preferred units from and including October 10, 2017 to, but not including, November 15, 2022 is 6.125% per year of the liquidation preference per unit (equal to \$61.25 per unit per year). On and after November 15, 2022, distributions on the Series B preferred units will accumulate for each distribution period at a percentage of the liquidation preference equal to the Series B Three-Month LIBOR (as defined in and calculated pursuant to our Seventh Amended and Restated Agreement of Limited Partnership) plus a spread of 4.11%.

Upon the occurrence of certain rating agency events, we may redeem the Series B preferred units, in whole but not in part, at a price of \$1,020 (102% of the liquidation preference) per Series B preferred unit plus an amount equal to all accumulated and unpaid distributions thereon to, but not including, the date of redemption, whether or not declared. In addition, at any time on or after November 15, 2022, we may redeem the Series B preferred units, at our option, in whole or in part, at a redemption price of \$1,000 per Series B preferred unit plus an amount equal to all accumulated and unpaid distributions thereon to, but not including, the date of redemption, whether or not declared.

The following table presents the activity for our preferred and common units:

		Limited Partners	
	Series A Preferred Units	Series B Preferred Units	Common Units
Outstanding at December 31, 2018	71,090,468	800,000	726,361,924
Issuances of common units under equity-indexed compensation plans		_	1,666,652
Outstanding at December 31, 2019	71,090,468	800,000	728,028,576
Repurchase and cancellation of common units under the Common Equity Repurchase Program			(6,222,748)
Issuances of common units under equity-indexed compensation plans	<u> </u>		574,588
Outstanding at December 31, 2020	71,090,468	800,000	722,380,416
Repurchase and cancellation of common units under the Common Equity Repurchase Program		_	(18,061,583)
Issuances of common units under equity-indexed compensation plans			672,707
Outstanding at December 31, 2021	71,090,468	800,000	704,991,540

Common Equity Repurchase Program. In November 2020, the board of directors of PAGP GP approved a \$500 million common equity repurchase program (the "Program") to be utilized as an additional method of returning capital to investors. The Program 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 PAGP Class A shares that are repurchased will be canceled. PAGP Class C shares held by us associated with any publicly held common units that are repurchased will also be canceled. See Note 17 for additional information regarding our ownership of PAGP Class C shares.

We repurchased 18,061,583 and 6,222,748 common units under the Program through open market purchases that settled during the years ended December 31, 2021 and 2020, respectively. The total purchase price of these units was \$178 million and \$50 million, respectively, including commissions and fees. The repurchased common units were canceled immediately upon acquisition, as were the PAGP Class C shares held by us associated with the repurchased common units. At December 31, 2021, the remaining available capacity under the Program was \$272 million.

Income Allocation

We allocate net income for partners' capital presentation purposes by applying the allocation methodology in our partnership agreement. Net income is allocated 100% to our common unitholders, after giving effect to income allocations for cash distributions to our Series A preferred unitholders and guaranteed payments attributable to our Series B preferred unitholders. In accordance with our partnership agreement, our Series A preferred unitholders are not allocated income for paid-in-kind distributions for partners' capital presentation purposes.

For purposes of determining basic and diluted net income per common unit, income is allocated as prescribed in FASB guidance for calculating earnings per unit, including a deduction to income available to common unitholders for distributions attributable to the period (whether paid in cash or in-kind) on our Series A and Series B preferred units. See Note 4 for additional information.

Distributions to 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 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 available cash also includes cash on hand resulting from borrowings made after the end of the quarter.

Preferred Unit Distributions

The following table details distributions paid to our preferred unitholders during the years presented (in millions, except unit data):

		Cash Distributions						
Year	Series A	Preferred Unitholders	Series B Preferred Unitholders					
2021	\$	149	\$	49				
2020	\$	149	\$	49				
2019	\$	149	\$	49				

On February 14, 2022, we paid a cash distribution of \$37 million to our Series A preferred unitholders. At December 31, 2021, such amount was accrued as distributions payable in "Other current liabilities" on our Consolidated Balance Sheet. At December 31, 2021, approximately \$6 million of accrued distributions payable to our Series B preferred unitholders was included in "Other current liabilities" on our Consolidated Balance Sheet.

Common Unit Distributions

The following table details distributions paid to common unitholders during the years presented (in millions, except per unit data):

		Distributions Paid	i		Distributions per	
Year	Public	AAP		Total	common unit	
2021	\$ 341	\$	176 \$	517	\$ 0.77	,
2020	\$ 432	\$	223 \$	655	\$ 0.90)
2019	\$ 632	\$	372 \$	1,004	\$ 1.38	3

On January 10, 2022, we declared a cash distribution of \$0.18 per unit on our outstanding common units. The total distribution of \$127 million was paid on February 14, 2022 to unitholders of record at the close of business on January 31, 2022, for the period from October 1, 2021 through December 31, 2021. Of this amount, approximately \$43 million was paid to AAP.

Noncontrolling Interests in Subsidiaries

As of December 31, 2021, noncontrolling interests in our subsidiaries consisted of (i) a 35% interest in the Permian JV and (ii) a 33% interest in Red River Pipeline Company LLC ("Red River LLC"). The transactions resulting in the recognition of such noncontrolling interests are described below.

In October 2021, we formed a joint venture, the Permian JV, with Oryx Midstream. We own 65% of the Permian JV and consolidate based on control, with Oryx Midstream's 35% interest accounted for as a noncontrolling interest. This transaction resulted in the recognition of partners' capital attributable to noncontrolling interests of approximately \$2.7 billion and an increase to our partners' capital excluding noncontrolling interests of approximately \$605 million. See Note 7 for more details regarding this transaction.

In May 2019, we formed a joint venture, Red River LLC, with Delek Logistics Partners, LP ("Delek") on our Red River pipeline system. We received approximately \$128 million for Delek's 33% interest in Red River LLC. We consolidate Red River LLC based on control, with Delek's 33% interest accounted for as a noncontrolling interest.

Noncontrolling Interest Contributions and Distributions

During the years ended December 31, 2021 and 2020, we received contributions from noncontrolling interests in Red River LLC of \$1 million and \$12 million, respectively, related to the Red River pipeline capacity expansion.

During the years ended December 31, 2021, 2020 and 2019, we paid distributions of \$14 million, \$10 million and \$6 million, respectively, to noncontrolling interests in Red River LLC.

The initial distribution from the Permian JV was paid during the first quarter of 2022, with approximately \$54 million paid to noncontrolling interests. Subsequent distributions will be allocated based on the MSA. See Note 7 for additional information.

Note 13-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) 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 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 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 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 December 31, 2021 and 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 December 31, 2021, net derivative positions related to these activities included:

- · A net long position of 8.4 million barrels associated with our crude oil purchases, which was unwound ratably during January 2022 to match monthly average pricing.
- A net short time spread position of 5.7 million barrels, which hedges a portion of our anticipated crude oil lease gathering purchases through December 2022.
- A net crude oil basis spread position of 7.3 million barrels at multiple locations through December 2022. These derivatives allow us to lock in grade and location basis differentials.
- · A net short position of 19.2 million barrels through December 2023 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 December 31, 2021.

	Notional Volume (Short)/Long	Remaining Tenor
Natural gas purchases	73.4 Bcf	December 2023
Propane sales	(13.7) MMbls	December 2023
Butane sales	(3.3) MMbls	December 2023
Condensate sales	(1.5) MMbls	December 2023
Fuel gas requirements (1)	7.5 Bcf	December 2022
Power supply requirements (1)	0.6 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. The following table summarizes the impact of our commodity derivatives recognized in earnings (in millions):

	Year Ended December 31,							
	202	1	2020	2019				
Product sales revenues	\$	(710)	\$ (302)	\$ 310				
Field operating costs		71	5	14				
Net gain/(loss) from commodity derivative activity	\$	(639)	\$ (297)	\$ 324				

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):

	Decem	iber 31,
	2021	2020
Initial margin	\$ 133	\$ 91
Variation margin posted/(returned)	173	290
Letters of credit	(47)	(63)
Net broker receivable/(payable)	\$ 259	\$ 318

The following table reflects the 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 Consolidated Balance Sheet when the legal right of offset exists. Amounts in the table below are presented in millions.

	_		Decembe	1, 2021		_			Decembe	r 31	1, 2020					
		Commodit	y De			Effect of Collateral	Va	Net Carrying alue Presented in the Balance		Commodity	De i			Effect of Collateral	V	Net Carrying alue Presented in the Balance
D. C. C. Land		Assets	_	Liabilities		Netting	_	Sheet	_	Assets	_	Liabilities		Netting	_	Sheet
Derivative Assets																
Other current assets	\$	90	\$	(210)	\$	259	\$	139	\$	71	\$	(314)	\$	318	\$	75
Other long-term assets, net		3		_		_		3		5		_		_		5
Derivative Liabilities																
Other current liabilities		4		(24)		_		(20)		9		(40)		_		(31)
Other long-term liabilities and deferred credits		3		(9)		_		(6)		_		(32)		_		(32)
Total	\$	100	\$	(243)	\$	259	\$	116	\$	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 December 31, 2021 (notional amounts in millions):

Hedged Transaction	Number and Types of Derivatives Employed	otional mount	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 December 31, 2021, there was a net loss of \$208 million deferred in AOCI. The deferred net loss recorded in AOCI is expected to be reclassified to future earnings contemporaneously with interest expense accruals associated with underlying debt instruments. 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 December 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):

			Year	Ended December 31,		
		2021		2020	2019	
Interest rate derivatives, net	\$	19	\$	(10)	\$ (91)	

At December 31, 2021, the net fair value of our interest rate hedges, which were included in "Other long-term assets, net" on our Consolidated Balance Sheet, totaled \$65 million. At December 31, 2020, the net fair value of these hedges totaled \$46 million and was included in "Other long-term assets, net."

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 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 income/(expense), net" in our Consolidated Statement of Operations. For the years ended December 31, 2021, 2020 and 2019 we recognized net gains of \$14 million, \$20 million and \$2 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 Consolidated Balance Sheets, totaled less than \$1 million and \$14 million at December 31, 2021 and 2020, respectively. See Note 12 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):

		Fa	alue as of D	ember 31, 20		Fair Value as of December 31, 2020										
Recurring Fair Value Measures (1)	I	evel 1]	Level 2		Level 3		Total	I	evel 1]	Level 2	L	evel 3		Total
Commodity derivatives	\$	(17)	\$	(124)	\$	(2)	\$	(143)	\$	(143)	\$	(143)	\$	(15)	\$	(301)
Interest rate derivatives		_		65		_		65		_		46		_		46
Preferred Distribution Rate Reset Option and Other		_		_		_		_		_		2		(14)		(12)
Total net derivative asset/(liability)	\$	(17)	\$	(59)	\$	(2)	\$	(78)	\$	(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 Consolidated Statements of Operations as Product sales 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):

	Year Ended December 31,				
	2	021		2020	
Beginning Balance	\$	(29)	\$	(51)	
Net gains/(losses) for the period included in earnings		15		12	
Settlements		12		10	
Ending Balance	\$	(2)	\$	(29)	
Change in unrealized gains/(losses) included in earnings relating to Level 3 derivatives still held at the end of the period	\$	15	\$	12	

Note 14—Leases

Lessee

We evaluate all agreements entered into or modified that convey to us the use of property or equipment for a term to determine whether the agreement is or contains a lease. Significant judgment is required when determining whether we obtain the right to direct the use of identified property or equipment. We lease certain property and equipment under noncancelable and cancelable operating and finance leases. Our operating leases primarily relate to railcars, office space, land, vehicles, and storage tanks, and our finance leases primarily relate to tractor trailers, land, storage tanks and vehicles. One of our finance leases is for storage tanks owned by an equity method investee, in which we own a 50% interest. For leases with an initial term of 12 months, we recognize a right-of-use asset and lease liability on the balance sheet. Leases with an initial term of 12 months or less are not recorded on the balance sheet. We have elected the non-lease component separation practical expedient for certain classes of assets where we are the lessee. Our lease agreements have remaining lease terms ranging from one year to approximately 59 years. When applicable, this range includes additional terms associated with leases for which we are reasonably certain to exercise the option to renew and such renewal options are recognized as part of our right-of-use assets or lease liabilities as we have determined we are not reasonably certain to exercise the option to renew.

Certain of our leases have variable lease payments, many of which are based on changes in market indices such as the Consumer Price Index. Our lease agreements for our tractor trailers contain residual value guarantees equal to the fair market value of the tractor trailers at the end of the lease term in the event that we elect not to purchase the asset for an amount equal to the fair value. Our lease agreements do not contain any material restrictive covenants.

For determining the present value of lease payments, we use the discount rate implicit in the lease when readily determinable; however, such rate is not readily determinable for most of our leases. For those leases for which the discount rate is not readily determinable, we utilize incremental borrowing rates that reflect collateralized borrowing with payments and terms that mirror our lease portfolio to discount the lease payments based on information available at the lease commencement date.

The following table presents components of lease cost, including both amounts recognized in income and amounts capitalized (in millions):

_	Year Ended December 31,										
Lease Cost	2021	2020	2019								
Operating lease cost	\$ 96	\$ 111	\$ 125								
Short-term lease cost	19	31	35								
Other (1)(2)	14	8	_								
Total lease cost	\$ 129	\$ 150	\$ 160								

(1) Includes finance lease costs, variable lease costs and sublease income.

The following table presents information related to cash flows arising from lease transactions (in millions):

	 Year Ended December 31,							
	2021	2020	2019					
Cash paid for amounts included in the measurement of lease liabilities:	 							
Operating cash flows for operating leases	\$ 91	\$ 108	\$ 116					
Operating cash flows for finance leases	\$ 7	\$ 5	\$ 1					
Financing cash flows for finance leases	\$ 11	\$ 19	\$ 18					
Non-cash change in lease liabilities arising from obtaining new right-of-use assets or modifications:								
Operating leases	\$ 94	\$ 5	\$ 77					
Finance leases (1)	\$ 1	\$ 32	\$ 27					

⁽¹⁾ Includes \$25 million and \$12 million for the years ended December 31, 2020 and 2019, respectively, associated with leased storage tanks owned by an equity method investee, in which we own a 50% interest.

Information related to the weighted-average remaining lease term and discount rate is presented in the table below:

	Decembe	er 31,
	2021	2020
Weighted-average remaining lease term (in years):		
Operating leases	11	12
Finance leases	9	9
Weighted-average discount rate:		
Operating leases	4.2 %	4.5 %
Finance leases	11.6 %	11.1 %

⁽²⁾ Includes approximately \$8 million and \$6 million for the years ended December 31, 2021 and 2020, respectively, associated with leased storage tanks owned by an equity method investee, in which we own a 50% interest.

The following table presents the amount and location of our operating and finance lease right-of-use assets and liabilities on our Consolidated Balance Sheets (in millions):

		December 31,						
Leases	Balance Sheet Location		2021	2020				
Assets								
Operating lease right-of-use assets	Long-term operating lease right-of-use assets, net	\$	393 \$	378				
Finance lease right-of-use assets (1)	Property and equipment	\$	136 \$	141				
	Accumulated depreciation		(37)	(27)				
	Property and equipment, net	\$	99 \$	114				
Total lease right-of-use assets		\$	492 \$	492				
								
Liabilities								
Operating lease liabilities								
Current	Other current liabilities	\$	77 \$	78				
Noncurrent	Long-term operating lease liabilities		339	317				
Total operating lease liabilities		\$	416 \$	395				
Finance lease liabilities (1)								
Current	Short-term debt	\$	12 \$	11				
Noncurrent	Other long-term debt, net		59	70				
Total finance lease liabilities		\$	71 \$	81				
Total lease liabilities		\$	487 \$	476				

⁽¹⁾ Includes right-of-use assets of \$33 million and \$35 million and lease liabilities of \$35 million and \$36 million as of December 31, 2021 and 2020, respectively, associated with leased storage tanks owned by an equity method investee, in which we own a 50% interest.

The following table presents the maturity of undiscounted cash flows for future minimum lease payments under noncancelable leases as of December 31, 2021 reconciled to our lease liabilities on our Consolidated Balance Sheet (amounts in millions):

	Operating	Finance (2)
Future minimum lease payments (1):		
2022	\$ 92	\$ 18
2023	75	15
2024	63	14
2025	50	12
2026	38	7
Thereafter	252	60
Total	570	126
Less: Present value discount	(154)	(55)
Lease liabilities	\$ 416	\$ 71

- (1) Excludes future minimum payments for short-term and other immaterial leases not included on our Consolidated Balance Sheet.
- (2) Includes payments of approximately \$6 million for each of the years ending 2022 through 2026 and approximately \$58 million thereafter associated with leased storage tanks owned by an equity method investee, in which we own a 50% interest.

Lessor

We evaluate all agreements entered into or modified that convey to others the use of property or equipment for a term to determine whether the agreement is or contains a lease. Significant judgment is required when determining whether a customer obtains the right to direct the use of identified property or equipment. The underlying assets associated with these agreements are evaluated for future use beyond the lease term. We have elected the non-lease component separation practical expedient for all classes of assets where we are the lessor.

We enter into agreements to conduct activities associated with (i) providing storage services primarily for crude oil and NGL and (ii) transporting crude oil and NGL. Certain of these agreements convey counterparties the right to direct the operation of physically distinct assets. Such agreements include (i) fixed consideration, which is measured based on an available capacity during the period multiplied by the rate in the agreement, or (ii) a fixed monthly fee and variable consideration based on usage. These agreements often include options to extend or terminate the lease, with advance notice. These agreements are operating leases.

The following table presents our lease revenue for the periods indicated (in millions):

		Year Ended December 31,							
	2	021	2020		20)19			
Operating lease revenue (1)	\$	28	\$	19	\$	17			

These amounts are included in "Services revenues" on our Consolidated Statements of Operations.

The table below presents the maturity of lease payments for operating lease agreements in effect as of December 31, 2021. This presentation includes minimum fixed lease payments and does not include an estimate of variable lease consideration. These agreements have remaining lease terms ranging from one year to 20 years. The following table presents the undiscounted cash flows expected to be received related to these agreements (in millions):

	2022	2023	2024	2025	2026	Thereafter
Future minimum lease revenue	\$ 29	\$ 22	\$ 20	\$ 20	\$ 20	\$ 197

Note 15—Income Taxes

Income tax expense is estimated using the tax rate in effect or to be in effect during the relevant periods in the jurisdictions in which we operate. Deferred income tax assets and liabilities are recognized for temporary differences between the basis of assets and liabilities for financial reporting and tax purposes and are stated at enacted tax rates expected to be in effect when taxes are actually paid or recovered. To the extent we do not consider it more likely than not that a deferred tax asset will be recovered, a valuation allowance is established. Changes in tax legislation are included in the relevant computations in the period in which such changes are effective. We review contingent tax liabilities for estimated exposures on a more likely than not standard related to our current tax positions.

Pursuant to FASB guidance related to accounting for uncertainty in income taxes, we may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based on the technical merits of the tax position and also the past administrative practices and precedents of the taxing authority. As of December 31, 2021 and 2020, we had not recognized any material amounts in connection with uncertainty in income taxes.

U.S. Federal and State Taxes

As an MLP, we are not subject to U.S. federal income taxes; rather the tax effect of our operations is passed through to our unitholders. Although we are subject to state income taxes in some states, the impact to the years ended December 31, 2021, 2020, and 2019 was immaterial.

Canadian Federal and Provincial Taxes

All of our Canadian operations are conducted by entities that are treated as corporations for Canadian tax purposes (flow through for U.S. income tax purposes) and that are subject to Canadian federal and provincial taxes. Additionally, payments of interest and dividends from our Canadian entities to other Plains entities are subject to Canadian withholding tax that is treated as income tax expense.

Tax Components

Components of income tax expense are as follows (in millions):

		Year Ended December 31,						
	·	2021	202	20	2019			
Current income tax expense:								
State income tax	\$	2	\$	- \$	3			
Canadian federal and provincial income tax		48		51	109			
Total current income tax expense	\$	50	\$	51 \$	112			
Deferred income tax expense/(benefit):								
Canadian federal and provincial income tax	\$	23	\$	(70) \$	(46)			
Total deferred income tax expense/(benefit)	\$	23	\$	(70) \$	(46)			
Total income tax expense/(benefit)	\$	73	\$	(19) \$	66			

The difference between income tax expense based on the statutory federal income tax rate and our effective income tax expense is summarized as follows (in millions):

	Year Ended December 31,								
	 2021		2020		2019				
Income/(loss) before tax	\$ 721	\$	(2,599)	\$	2,246				
Partnership (earnings)/loss not subject to current Canadian tax	(370)		2,221		(1,769)				
	\$ 351	\$	(378)	\$	477				
Canadian federal and provincial corporate tax rate	24%		24%		26%				
Income tax expense/(benefit) at statutory rate	\$ 84	\$	(91)	\$	124				
Canadian permanent differences and rate changes	\$ (13)	\$	72	\$	(61)				
State income tax	2		_		3				
Total income tax expense/(benefit)	\$ 73	\$	(19)	\$	66				

The Canadian permanent differences and rate changes for the year ended December 31, 2020 primarily related to an impairment of goodwill that was recognized during the year. A portion of the goodwill that was impaired had no basis for Canadian income tax purposes and thus was not a deductible expense in determining taxable income, resulting in a permanent difference for Canadian tax purposes. See Note 8 for additional information regarding this impairment.

During the second quarter of 2019, the Alberta government enacted legislation that reduces the Alberta provincial corporate income tax rate from 12% to 8% over the period from July 1, 2019 through January 1, 2022. As a result, during the second quarter of 2019, we recognized a reduction of our deferred income tax liability of approximately \$60 million and a corresponding deferred tax benefit. In the fourth quarter of 2020, the Alberta government changed the timing of the rate reduction to decrease the corporate income tax rate to 8% starting July 1, 2020.

Deferred tax assets and liabilities are aggregated by the applicable tax paying entity and jurisdiction and result from the following (in millions):

	Dece	mber 31,
	2021	2020
Deferred tax assets:		
Derivative instruments	\$ 39	\$ 45
Lease liabilities	48	39
Net operating losses	2	2
Other	17	16
Total deferred tax assets	106	102
Deferred tax liabilities:		
Property and equipment in excess of tax values	(531)	(475)
Lease assets	(47)	(38)
Other	(3)	(3)
Total deferred tax liabilities	(581)	(516)
Net deferred tax liabilities	\$ (475)	\$ (414)
Balance sheet classification of deferred tax assets/(liabilities):		
Other long-term assets, net	\$ 2	\$ 2
Other long-term liabilities and deferred credits	(477)	(416)
	\$ (475)) \$ (414)

As of December 31, 2021, we had foreign net operating loss carryforwards of \$9 million, which will expire beginning in 2034.

Generally, tax returns for our Canadian entities are open to audit from 2017 through 2021. Our U.S. and state tax years are generally open to examination from 2018 to 2021.

As of December 31, 2021, in reference to tax years 2008 to 2016, we had received notices of reassessment ("notices") from the Canada Revenue Agency and the Alberta Tax and Revenue Administration (the "Canadian Tax Authorities") related primarily to transfer pricing associated with cross-border intercompany financing transactions. These notices include assessments, including penalties and interest, associated with these transfer pricing matters totaling approximately \$120 million (based on the exchange rate as of December 31, 2021). Payment of a portion of the assessment is required in order to file a notice of objection to dispute the reassessment. Accordingly, we have remitted approximately \$101 million (based on the exchange rate as of December 31, 2021) related to the assessments, which is included in "Other long-term assets, net," on our Consolidated Balance Sheets. We disagree with these notices and have contested the reassessments. We intend to vigorously defend our position, and we plan to pursue all remedies available to us to successfully resolve these matters, including administrative remedies with the Canadian Tax Authorities, and judicial remedies, if necessary. As of December 31, 2021, we believe that our tax position associated with these matters is "more likely than not" to be sustained and have not recognized any amounts for uncertainty in income taxes related to these notices.

Note 16-Major Customers and Concentration of Credit Risk

ExonMobil Corporation and its subsidiaries accounted for 15%, 12% and 12% of our revenues for the years ended December 31, 2021, 2020 and 2019, respectively. Marathon Petroleum Corporation and its subsidiaries accounted for 12%, 13% and 12% of our revenues for the years ended December 31, 2021, 2020 and 2019, respectively. BP p.l.c. and its subsidiaries accounted for 10% of our revenues for the year ended December 31, 2021. Phillips 66 Company and its subsidiaries accounted for 11% of our revenues for the year ended December 31, 2019. No other customers accounted for 10% or more of our revenues during any of the three years ended December 31, 2021. The majority of revenues from these customers pertain to our Crude Oil segment merchant activities, and sales to these customers occur at multiple locations. If we were to lose one or more of these customers, there is risk that we would not be able to identify and access a replacement market at a comparable margin.

Financial instruments that potentially subject us to concentrations of credit risk consist principally of trade receivables. Our accounts receivable are primarily from purchasers and shippers of crude oil and, to a lesser extent, purchasers of NGL. This industry concentration has the potential to impact our overall exposure to credit risk in that the customers may be similarly affected by changes in economic, industry or other conditions. We review credit exposure and financial information of our counterparties and generally require letters of credit for receivables from customers that are not considered creditworthy, unless the credit risk can otherwise be reduced. See Note 3 for additional discussion of our accounts receivable and our review of credit exposure.

Note 17—Related Party Transactions

Ownership of PAGP Class C Shares

As of December 31, 2021 and 2020, we owned 534,596,831 and 547,717,762, respectively, Class C shares of PAGP. Each Class C share represents a non-economic limited partner interest in PAGP. The number of Class C shares that we own is equal to the number of outstanding common units and Series A preferred units that are entitled to vote, pro rata with the holders of PAGP Class A and Class B shares, for the election of eligible PAGP GP directors. The Class C shares function as a "pass-through" voting mechanism through which we vote at the direction of and as proxy for our common unitholders and Series A preferred units are not entitled to vote in the election of directors.

Reimbursement of Our General Partner and its Affiliates

Our general partner provides services necessary to manage and operate our business, properties and assets, including employing or retaining personnel. We do not pay our general partner a management fee, but we do reimburse our general partner for all direct and indirect costs it incurs or payments it makes on our behalf, including the costs of employee, officer and director compensation and benefits allocable to us as well as all other expenses necessary or appropriate to the conduct of our business. We record these costs on the accrual basis in the period in which our general partner incurs them. Our partnership agreement provides that our general partner will determine the expenses that are allocable to us in any reasonable manner determined by our general partner in its sole discretion. Total costs reimbursed by us to our general partner for the years ended December 31, 2021, 2020 and 2019 were \$467 million, \$553 million and \$580 million, respectively.

Omnibus Agreement

The Plains Entities entered into an Omnibus Agreement on November 15, 2016, which provides for the following:

- that we will pay all direct or indirect expenses of any of the PAGP Entities, other than income taxes (including, but not limited to, (i) compensation for the directors of PAGP GP, (ii) director and officer liability insurance, (iii) listing exchange fees, (iv) investor relations expenses and (v) fees related to legal, tax, financial advisory and accounting services). We paid \$5 million and \$4 million during the years ended December 31, 2021, 2020 and 2019, respectively;
- the ability of PAGP to issue additional Class A shares and use the net proceeds therefrom to purchase a like number of AAP units from AAP, and the corresponding ability of AAP to use the net proceeds therefrom to purchase a like number of our common units from us; and

• the ability of PAGP to lend proceeds of any future indebtedness incurred by it to AAP, and AAP's corresponding ability to lend such proceeds to us, in each case on substantially the same terms as incurred by PAGP.

Transactions with Other Related Parties

Our other related parties include (i) principal owners and their affiliated entities and (ii) entities in which we hold investments and account for under the equity method of accounting (see Note 9 for information regarding such entities). We recognize as our principal owners entities that have a designated representative on the board of directors of PAGP GP and/or own greater than 10% of the limited partner interests in AAP. Such limited partner interests in AAP translate into a significantly smaller indirect ownership interest in PAA. We also consider subsidiaries or funds identified as affiliated with principal owners to be related parties. As of December 31, 2021, no entities met the criteria to be recognized as a principal owner.

Through various transactions by an affiliate of The Energy & Minerals Group ("EMG") in May 2019, EMG's limited partner interest in AAP was significantly reduced, which caused EMG to lose its right to designate a representative on the board of directors of PAGP GP. Additionally, as a result of various transactions by Occidental Petroleum Corporation or its subsidiaries ("Oxy") in September 2019, Oxy no longer holds a limited partner interest in AAP and lost its right to designate a representative on the board of directors of PAGP GP. Following these transactions, we no longer recognize EMG or Oxy as a principal owner.

In August 2021, the board of directors of PACP GP approved and adopted an amendment to PAGP GP's limited liability company agreement (the "Amendment") which eliminated all previously negotiated "director designation" rights and requires that all directors be subject to public election, including Kayne Anderson Capital Advisors, L.P.'s ("Kayne Anderson") legacy contractual right to designate an individual to serve on the PAGP GP board without being subject to public election. The Amendment also eliminated all previously negotiated rights, including Kayne Anderson's right, to appoint a PAGP GP board observer under certain circumstances. As a result of these changes, we no longer recognize Kayne Anderson and its affiliates as related parties.

During the three years ended December 31, 2021, 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 Consolidated Statements of Operations from these transactions is included below (in millions):

	Year Ended December 31,								
	202	21		2020		2019			
Revenues from related parties (1)	\$	33	\$	46	\$	692			
Purchases and related costs from related parties (1)	\$	385	\$	451	\$	223			

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

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

		December 31,	
	2021	ı	2020
Trade accounts receivable and other receivables, net from related parties (1)	\$	41 \$	34
Trade accounts payable to related parties (1)(2)	\$	72 \$	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 18-Equity-Indexed Compensation Plans

Our equity-indexed compensation plans primarily include LTIPs. Although other types of awards are contemplated under certain of the LTIPs, currently outstanding awards are limited to "phantomunits," which mature into the right to receive common units of PAA (or cash equivalent) upon vesting, and "tracking units," which, upon vesting, represent the right to receive a cash payment in an amount based upon the market value of a PAA common unit at the time of vesting. Some awards also include DERs, which, subject to applicable vesting criteria, entitle the grantee to a cash payment equal to the cash distribution paid on an outstanding PAA common unit. The DERs terminate with the vesting or forfeiture of the underlying LTIP award.

Plains All American 2021 Long-Term Incentive Plan. In May 2021, PAA unitholders approved the Plains All American 2021 Long-Term Incentive Plan, which amends, restates, and renames the Plains All American 2013 Long-Term Incentive Plan and authorizes an incremental 20 million PAA common units deliverable upon vesting of awards granted under the plan.

Our LTIP awards include both liability-classified and equity-classified awards. In accordance with FASB guidance regarding share-based payments, the fair value of liability-classified LTIP awards is calculated based on the closing market price of the underlying PAA unit at each balance sheet date and adjusted for the present value of any distributions that are estimated to occur on the underlying units over the vesting period that will not be received by the award recipients. The fair value for equity-classified awards is calculated in a similar manner on the respective grant dates. These fair values are recognized as compensation expense over the service period. We have elected to recognize forfeitures of awards when they occur.

Our LTIP awards contain (i) time-based vesting criteria, (ii) performance conditions, (iii) market conditions or (iv) a combination of time-based vesting criteria and performance conditions. For awards with performance conditions, expense is accrued over the service period only if the performance condition is considered probable of occurring. When awards with performance conditions that were previously considered improbable become probable, we incur additional expense in the period that the probability assessment changes. This is necessary to bring the accrued obligation associated with these awards up to the level it would have been if we had been accruing for these awards since the grant date. For awards with market conditions, the probable outcomes are determined on the respective dates that the fair values are calculated, and the resulting expense is accrued over the service period.

The following is a summary of the awards authorized under our LTIPs as of December 31, 2021 (in millions):

LTIP	LTIP Awards Authorized
Plains All American 2021 Long-Term Incentive Plan	28.8
Plains All American PNG Successor Long-Term Incentive Plan	1.3
Plains All American GP LLC 2006 Long-Term Incentive Tracking Unit Plan	13.4
Total ⁽¹⁾	43.5

(1) Of the 43.5 million total awards authorized, 22.7 million awards are currently available. The remaining balance has already vested or is currently outstanding.

As of December 31, 2021, 10.7 million LTIP awards were outstanding. Of the awards outstanding, 7.6 million include associated DERs. At December 31, 2021, certain of the outstanding LTIP awards were considered probable of vesting and such awards are expected to vest at various dates between January 2022 and August 2026. As of December 31, 2021, the outstanding awards that are considered probable of vesting have a remaining unrecognized fair value of approximately \$44 million.

Note 19—Commitments and Contingencies

Commitments

We have commitments, some of which are leases, related to real property, equipment and operating facilities. We also incur costs associated with leased land, rights-of-way, permits and regulatory fees. Future noncancelable commitments related to these items at December 31, 2021 are summarized below (in millions):

	2022		2023	2024		2025		2026	Thereafter		Total
Leases (1)	\$ 110	\$	90	\$	77	\$ 62	\$	45	\$ 312	\$	696
Other commitments (2)	327		307		298	282		211	624		2,049
Total	\$ 437	\$	397	\$	375	\$ 344	\$	256	\$ 936	\$	2,745

Includes both operating and finance leases as defined by FASB guidance. Leases are primarily for (i) railcars, (ii) office space, (iii) land, (iv) vehicles, (v) storage tanks and (vi) tractor trailers. See Note 14 for additional information.

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.

Primarily includes storage, transportation and pipeline throughput agreements, as well as certain rights-of-way easements. Expense associated with our storage, transportation and pipeline throughput agreements was approximately \$270 million, \$265 million and \$236 million for 2021, 2020 and 2019, respectively. A majority of the storage, transportation and pipeline throughput commitments are associated with agreements to store crude oil at facilities and transport crude oil on pipelines owned by equity method investees, in which we own a 50% interest, 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.

Environmental — General

We currently own or lease, and in the past have owned and leased, properties where hazardous liquids, including hydrocarbons, are or have been handled. These properties and the hazardous liquids or associated wastes disposed thereon may be subject to the U.S. federal Comprehensive Environmental Response, Compensation and Liability Act, as amended, and the U.S. federal Resource Conservation and Recovery Act, as amended, as well as state and Canadian federal and provincial laws and regulations. Under such laws and regulations, we could be required to remove or remediate hazardous liquids or associated wastes (including wastes disposed of or released by prior owners or operators) and to clean up contaminated property (including contaminated groundwater). Assets we have acquired or will acquire in the future may have environmental remediation liabilities for which we are not indemnified.

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. We also may discover environmental impacts from past releases that were previously unidentified. 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 December 31, 2021, our estimated undiscounted reserve for environmental liabilities (excluding liabilities related to the Line 901 incident, as discussed further below) totaled \$57 million, of which \$11 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 (excluding liabilities related to the Line 901 incident) totaled \$55 million, of which \$8 million was classified as short-term and \$47 million was classified as long-term liabilities are reflected in "Other long-term liabilities" and long-term liabilities are reflected in "Other long-term liabilities and deferred credits" on our Consolidated Balance Sheets. At December 31, 2021 and 2020, we had recorded receivables (excluding receivables related to the Line 901 incident) totaling \$11 million and \$6 million, respectively, for amounts probable of recovery under insurance and from third parties under indemnification agreements, \$1 million of which for each period is reflected in "Other long-term assets, net" and the remainder is reflected in "Trade accounts receivable and other receivables, net" on our 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 prenegotiated 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 in

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. In September 2021, the Superior Court concluded a series of hearings on the issue of whether there were any "direct victims" of the spill that are entitled to restitution under applicable criminal law. Through a series of final orders issued at the trial court level and without affecting any rights of the claimants under civil law, the Court dismissed the vast majority of the claims and ruled that the claimants were not entitled to restitution under applicable criminal laws. The Court did award an aggregate amount of less than \$150,000 to a handful of claimants and we settled with approximately 40 claimants before the hearings for aggregate consideration that is not material. The prosecution has appealed the Court's rulings.

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. This case is set for trial to begin in June of 2022. 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 continue to vigorously defend against 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 December 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 \$495 million, which 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 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 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 possible or remote, we have made assumptions regarding the strength of our legal position based on our assessment of the relevant facts and applicable law and precedent; if our assumptions regarding such matters turn out to be inaccurate (i.e., we are found to be liable under circumstances where we regard the likelihood of loss as being only reasonably possible or remote), we could be responsible for significant costs and expens

As of December 31, 2021, we had a remaining undiscounted gross liability of \$103 million related to this event, which is reflected in "Trade accounts payable" and "Other current liabilities" on our 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 December 31, 2021, we had collected, subject to customary reservations, \$250 million out of the approximate \$355 million of release costs that we believe are probable of recovery from insurance carriers, net of deductibles. Therefore, as of December 31, 2021, we have recognized a receivable of approximately \$105 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 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.

Insurance

Pipelines, terminals, trucks or other facilities or equipment may experience damage as a result of an accident, natural disaster, terrorist attack, cyber event or other event. These hazards can cause personal injury and loss of life, severe damage to and destruction of property and equipment, pollution or environmental damage and suspension of operations. Consistent with insurance coverage generally available in the industry, in certain circumstances our insurance policies provide limited coverage for losses or liabilities relating to gradual pollution, with broader coverage for sudden and accidental occurrences. We maintain various types and varying levels of insurance coverage to cover our operations and properties, and we self-insure certain risks, including gradual pollution, cybersecurity and named windstoms. However, such insurance does not cover every potential risk that might occur, associated with operating pipelines, terminals and other facilities and equipment, including the potential loss of significant revenues and cash flows.

The occurrence of a significant event not fully insured, indemnified or reserved against, or the failure of a party to meet its indemnification obligations, could materially and adversely affect our operations and financial condition. We believe that we maintain adequate insurance coverage, although insurance will not cover many types of interruptions that might occur, will not cover amounts up to applicable deductibles and will not cover all risks associated with certain of our assets and operations. With respect to our insurance coverage, our policies are subject to deductibles and retention levels that we consider reasonable and not excessive. Additionally, no assurance can be given that we will be able to maintain adequate insurance in the future at rates we consider reasonable. As a result, we may elect to self-insure or utilize higher deductibles in certain other insurance programs. In addition, although we believe that we have established adequate reserves and liquidity to the extent such risks are not insured, costs incurred in excess of these reserves may be higher or we may not receive insurance proceeds in a timely manner, which may potentially have a material adverse effect on our financial conditions, results of operations or cash flows.

Note 20—Segment Information

During the fourth quarter of 2021, we effected changes in the primary financial information provided to our CODM (our Chief Executive Officer) for assessing performance and allocating resources to present two operating segments, Crude Oil and NGL. Prior to the fourth quarter of 2021, this information was organized into three operating segments: Transportation, Facilities and Supply and Logistics. The change in our segments is reflective of a change in how our CODM views our business and stems primarily from (i) a multi-year transition in the midstream energy industry driven by increased competition that has reduced the stand alone earnings opportunities of our supply and logistics activities such that those activities now primarily support our effort to increase the utilization of our Crude Oil and NGL assets and (ii) internal changes regarding the oversight and reporting of our assets and related results of operations. All segment data and related disclosures for earlier periods presented herein have been recast to reflect the new segment reporting structure.

Our operating segments, which are also our reportable segments, are organized by product as our Crude Oil and NGL businesses are generally impacted by different market fundamentals and require the use of different assets and business strategies. The Crude Oil segment includes our crude oil pipelines, crude oil storage and marine terminals and related crude oil marketing activities. The NGL segment includes our NGL pipelines, NGL storage, natural gas processing and NGL fractionation facilities and related NGL marketing activities. In our historical segment reporting, our marketing activities were presented separately from our other operating activities. Our crude oil and NGL marketing activities are now included in the respective reporting segments as their primary purpose is to support the utilization of our assets by entering into transactions that facilitate increased volumes handled by our assets, resulting in additional earnings for each of our segments.

Our CODM evaluates segment performance based on measures including Segment Adjusted EBITDA (as defined below) and maintenance capital. The measure of Segment Adjusted EBITDA forms the basis of our internal financial reporting and is the primary performance measure used by our CODM in assessing performance and allocating resources among our operating segments. 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 (d) our proportionate share of the depreciation and amortization expense of unconsolidated entities, further adjusted (e) 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 and (f) to exclude the portion of all preceding items that is attributable to noncontrolling interests").

During the fourth quarter of 2021, we modified our definition of Segment Adjusted EBITDA to exclude amounts attributable to noncontrolling interests. In connection with the Permian JV formation in October 2021, our CODM determined this modification resulted in amounts that were more meaningful to evaluate segment performance. Amounts attributable to noncontrolling interests for periods prior have been recast to reflect this modification.

Segment Adjusted EBITDA excludes depreciation and amortization. As an MLP, we make quarterly distributions of our "available cash" (as defined in our partnership agreement) to our unitholders. We look at each period's earnings before non-cash depreciation and amortization as an important measure of segment performance. The exclusion of depreciation and amortization expense could be viewed as limiting the usefulness of Segment Adjusted EBITDA as a performance measure because it does not account in current periods for the implied reduction in value of our capital assets, such as pipelines and facilities, caused by age-related decline and wear and tear. We compensate for this limitation by recognizing that depreciation and amortization are largely offset by repair and maintenance investments, which act to partially offset the aging and wear and tear in the value of our principal fixed assets. These maintenance investments are a component of field operating costs included in Segment Adjusted EBITDA or in maintenance capital, depending on the nature of the cost. 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, which is deducted in determining "available cash." Repair and maintenance expenditures incurred in order to maintain the day to day operation of our existing assets are charged to expense as incurred. Assets are not reviewed by our CODM on a segmented basis; therefore, such information is not presented.

As of December 31, 2019

Investments in unconsolidated entities

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

		Crude Oil	NGL	Intersegment Revenues Elimination	Total
Year Ended December 31, 2021		Crude OII	NGL	Filmination	lotai
Revenues (1):					
Product sales	\$	39,395	, ,	\$ (341)	
Services		1,075	139	(19)	1,1
Total revenues	\$	40,470	\$ 1,968	\$ (360)	\$ 42,0
Equity earnings in unconsolidated entities	\$	274	<u> </u>		\$ 2
Segment Adjusted EBITDA	\$	1,909	\$ 285		\$ 2,1
Investment and acquisition capital expenditures (2)(3)	\$	212	\$ 57		\$ 2
Maintenance capital expenditures (3)	\$	100	\$ 68		\$ 1
As of December 31, 2021					
Investments in unconsolidated entities	<u>\$</u>	3,805	<u> </u>		\$ 3,8
		Crude Oil	NGL	Intersegment Revenues Elimination	Total
Year Ended December 31, 2020	_				
Revenues (1):					
Product sales	\$	21,089			\$ 22,0
Services		1,110	142	(20)	1,2
Total revenues	\$	22,199	\$ 1,360	\$ (269)	\$ 23,2
Equity earnings in unconsolidated entities	<u>\$</u>	355	<u> </u>		\$ 3
Segment Adjusted EBITDA	\$	2,216	\$ 327		\$ 2,5
Investment and acquisition capital expenditures (2)(3)	\$	1,182	\$ 49		\$ 1,2
Maintenance capital expenditures (3)	\$	171	\$ 45		\$ 2
As of December 31, 2020					
Investments in unconsolidated entities	<u>\$</u>	3,764	<u> </u>		\$ 3,7
				Intersegment Revenues	
		Crude Oil	NGL	E imination	Total
Year Ended December 31, 2019 Revenues (1):					
Product sales	\$	30,375	\$ 2,302	\$ (405)	\$ 32,2
Services	Ψ	1,280	137	(20)	1,3
Total revenues	\$	31,655		\$ (425)	\$ 33,6
Equity earnings in unconsolidated entities	\$	388	\$ <u></u>		\$ 3
Segment Adjusted EBITDA	\$	2,753	\$ 467		\$ 3,2
Investment and acquisition capital expenditures (2)(3)	\$	1,332	\$ 58		\$ 1,3
Maintenance capital expenditures (3)	\$	248	\$ 39		\$ 2
maniconance capital expenditures V	Ψ	210	<u> </u>		

3,683 \$

3,683

Segment Adjusted EBITDA Reconciliation

The following table reconciles Segment Adjusted EBITDA to Net income/(loss) attributable to PAA (in millions):

	Year Ended December 31,			
		2021	2020	2019
Segment Adjusted EBITDA	\$	2,194	\$ 2,543	\$ 3,220
Adjustments (1):				
Depreciation and amortization of unconsolidated entities (2)		(123)	(73)	(62)
Cains/(losses) from derivative activities and inventory valuation adjustments (3)		271	(480)	(160)
Long-term inventory costing adjustments (4)		94	(44)	20
Deficiencies under minimum volume commitments, net ⁽⁵⁾		7	(74)	18
Equity-indexed compensation expense (6)		(19)	(19)	(17)
Net gain/(loss) on foreign currency revaluation (7)		4	3	(14)
Line 901 incident ⁽⁸⁾		(15)	_	(10)
Significant transaction-related expenses (9)		(16)	(3)	_
Adjusted EBITDA attributable to noncontrolling interests (10)		94	14	10
Depreciation and amortization		(774)	(653)	(601)
Gains/(losses) on asset sales and asset impairments, net		(592)	(719)	(28)
Goodwill impairment losses		_	(2,515)	_
Gain on/(impairment of) investments in unconsolidated entities, net		2	(182)	271
Interest expense, net		(425)	(436)	(425)
Other income, net		19	39	24
Income/(loss) before tax		721	(2,599)	2,246
Income tax (expense)/benefit		(73)	19	(66)
Net income/(loss)		648	(2,580)	2,180
Net income attributable to noncontrolling interests		(55)	(10)	(9)
Net income/(loss) attributable to PAA	\$	593	\$ (2,590)	\$ 2,171

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

⁽¹⁾ Segment revenues include intersegment amounts that are eliminated in Purchases and related costs. 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.

⁽²⁾ Investment and acquisition capital expenditures, including investments in unconsolidated entities.

⁽³⁾ These amounts combined represent total capital expenditures.

⁽²⁾ Includes our proportionate share of the depreciation and amortization expense (including write-downs related to cancelled projects) of unconsolidated entities.

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

- 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 also exclude the impact of corresponding inventory valuation adjustments, as applicable.
- 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 units are included 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 for information 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.
- (8) Includes costs recognized during the period related to the Line 901 incident that occurred in May 2015, net of amounts we believe are probable of recovery from insurance. See Note 19 for additional information regarding the Line 901 incident.
- (9) Includes expenses associated with the Permian JV transaction in 2021 and the Felix Midstream LLC acquisition in 2020. See Note 7 for additional discussion. An adjustment for these non-recurring expenses is included in the calculation of Segment Adjusted EBITDA for the years ended December 31, 2021 and 2020 as our CODM does not view such expenses as integral to understanding our core segment operating performance.
- (10) Reflects amounts attributable to noncontrolling interests in the Permian JV (beginning October 2021) and Red River LLC.

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Geographic Data

We have operations in the United States and Canada. Set forth below are revenues and long-lived assets attributable to these geographic areas (in millions):

		Year Ended December 31,				
Revenues (1)	202	1		2020		2019
United States	\$	34,458	\$	17,942	\$	27,162
Canada		7,620		5,348		6,507
	\$	42,078	\$	23,290	\$	33,669

(1) Revenues are primarily attributed to each region based on where the services are provided or the product is shipped.

Long-Lived Assets (1)	2021	
11 % 10%		 2020
United States \$	18,273	\$ 16,887
Canada	4,094	3,892
\$	22,367	\$ 20,779

⁽¹⁾ Excludes long-term derivative assets, long-term deferred tax assets and goodwill.

FOURTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT

OF

PAA GP HOLDINGS LLC

effective as of August 19, 2021

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FOURTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT OF PAA GP HOLDINGS LLC

THIS FOURTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT (this "Agreement") of PAA GP Holdings LLC, a Delaware limited liability company (the "Company"), is made and entered into this 25th day of February, 2022 to be effective for all purposes as of August 19, 2021 by the Company and is binding on those Persons that are currently, or that may hereafter become, members of the Company (such Persons referred to collectively as the "Members" or, individually, as a "Member").

WHEREAS, the Company was formed on July 17, 2013 as a limited liability company under the Act (as defined below) by the filing of a certificate of formation of the Company with the Delaware Secretary of State; and

WHEREAS, the Board adopted the Third Amended and Restated Limited Liability Company Agreement of PAA GP Holdings LLC on February 16, 2017 (the "Third A&R LLC Agreement"); and

WHEREAS, the Board adopted amendments to the Third A&R LLC Agreement on October 1, 2018, December 10, 2018, November 21, 2019 (effective January 1, 2020), February 25, 2021 and August 19, 2021 (collectively, the "Amendments"); and

WHEREAS, the Board has authorized the Company to amend and restate the Third A&R LLC Agreement in its entirety to reflect and consolidate the Amendments and has approved this Agreement.

NOW, THEREFORE, in consideration of the premises and the mutual agreements contained herein, the parties agree as follows:

ARTICLE I DEFINITIONS

As used herein, the following terms shall have the following meanings, unless the context otherwise requires:

- "AAP" means Plains AAP, L.P., a Delaware limited partnership.
- "AAP Class A Units" means the Class A Units of AAP, having the rights and obligations specified in the AAP Partnership Agreement.
- "AAP Class B Units" means the Class B Units of AAP, having the rights and obligations specified in the AAP Partnership Agreement.
- "AAP Partnership Agreement" means the Eighth Amended and Restated Limited Partnership Agreement, dated as of November 15, 2016, as such may be further amended, modified, supplemented or restated from time to time in accordance with the terms thereof.

"AAP Redemption" means a redemption in accordance with Section 7.11 of the AAP Partnership Agreement.

"Act" means the Delaware Limited Liability Company Act, 6 Del. C. Section 18-101, et seq., as amended from time to time.

"Affiliate" means, with respect to any specified Person, any other Person that directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with, such specified Person. As used herein, the term "control" means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through ownership of voting securities, by contract or otherwise; provided that the determination as to whether a Person, directly or indirectly through one or more intermediaries, controls, is controlled by or under common control with another Person shall be made taking into account, at the time of such determination, the context and circumstances surrounding such determination, including any known agreements or understandings that may impact such Person's possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such other Person. For purposes of the foregoing:

- (a) any individual who is an officer or director of the Company or any Group Member (excluding the Chief Executive Officer and Chairman of the Board) shall not be considered to be an Affiliate of the Company or any Group Member by virtue of such Person's status as an officer or director and the possession of the powers that are within the scope of the designated or delegated authority of such officer or director;
- (b) any Person that, alone or together with any Affiliate Group of which such Person is a part, owns less than 50% of the total number of outstanding Company Units shall not be considered to be an Affiliate of the Company or any Group Member by virtue of the ownership by such Person (and Affiliate Group, if applicable) of such Company Units; and
- (c) any Person that, alone or together with any Affiliate Group of which such Person is a part, owns less than 50% of the total "Partnership Interests" (as such term is defined in the AAP Partnership Agreement) held by all partners of AAP, shall not be considered to be an Affiliate of the Company or any Group Member by virtue of the ownership by such Person (and Affiliate Group, if applicable) of such interests.

For the avoidance of doubt, for purposes of this Agreement, as of the date hereof (but subject to redetermination upon changed circumstances) (i) each of KAFU Holdings, L.P., KAFU Holdings (QP), L.P., Kayne Anderson MLP Investment Company, Kayne Anderson Energy Development Company, Kayne Anderson Midstream/Energy Fund, Inc. and KAFU Holdings II, L.P. is an Affiliate of each other, and (ii) each of EMG Investment, LLC and Lynx Holdings I, LLC is an Affiliate of the other.

"Affiliate Group" means a Person that with or through any of its Affiliates has any agreement, arrangement, understanding or relationship for the purpose of acquiring, holding, voting (except voting pursuant to a revocable proxy or consent given to such Person in response to a proxy or consent solicitation made to 10 or more Persons), exercising investment power or disposing of any Company Units or "Partnership Interests" (as that term is defined in the AAP

Partnership Agreement) with any other Person that beneficially owns, or whose Affiliates beneficially own, directly or indirectly, Company Units.

- "Agreement" has the meaning set forth in the preamble hereof, as such may be amended, supplemented or restated from time to time.
 - "Amendments" has the meaning set forth in the recitals hereof.
 - "Audit Committee" has the meaning set forth in Section 6.6(c).
 - "Authorized Representative" has the meaning set forth in Section 5.3.
 - "Board" means the Board of Directors of the Company.
- "Business Day" means Monday through Friday of each week, except that a legal holiday recognized as such by the government of the United States of America or the States of New York or Texas shall not be regarded as a Business Day.
- "Cause" means (i) with respect to any Director, gross misconduct or neglect, false or fraudulent misrepresentation regarding such director's qualifications or credentials, unauthorized disclosure of material confidential information concerning the Company and its Subsidiaries, conversion of corporate funds, acts involving moral turpitude, material violation of any code of conduct adopted by the Company or PAGP or similar acts detrimental to the Company or (ii) with respect to any Independent Director, the occurrence of an event or a change in circumstances that causes such Independent Director to fail to satisfy the applicable "bright-line" independence requirements (i.e., those resulting in automatic disqualification) of the Commission and any National Securities Exchange on which the PAGP Class A Shares or MLP Common Units are listed or admitted for trading, provided that such failure results in the Company ceasing to have the minimum number of Independent Directors required under applicable rules, laws or restrictions of the Commission and any National Securities Exchange on which the PAGP Class A Shares or MLP Common Units are listed or admitted for trading.
- "Certificate" means the Certificate of Formation of the Company filed with the Secretary of State of Delaware, as amended or restated from time to time.
 - "Class" has the meaning set forth in Section 6.2(a).
 - "Code" means the United States Internal Revenue Code of 1986, as amended.
 - "Commission" means the United States Securities and Exchange Commission.
 - "Company" has the meaning set forth in the preamble hereof.
- "Company Group" means the Company and its Subsidiaries treated as a single consolidated entity, but excluding the MLP and its Subsidiaries.
- "Company Unit" means a fractional part of the Membership Interest having the rights and preferences specified with respect to the Membership Interest.

- "Competitor" has the meaning set forth in Section 6.1(b).
- "Conflicts Committee" has the meaning set forth in Section 6.6(b).
- "Designation Right Termination Event" has the meaning set forth in Section 6.1(d).
- "Directors" has the meaning set forth in Section 6.1(a).
- "Eligible Directors" means any Director who is not a Series A Designated Director.
- "EMG" shall have the meaning set forth in Section 11.1.
- "Employees" has the meaning set forth in Section 11.2.
- "Encumbrance" means any security interest, pledge, mortgage, lien (including, without limitation, environmental and tax liens), charge, encumbrance, adverse claim, any defect or imperfection in title, preferential arrangement or restriction, right to purchase, right of first refusal or other burden or encumbrance of any kind, other than those imposed by this Agreement.
- "Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.
- "Existing Owners" means the Original Members listed on Schedule 1 attached hereto, excluding PAGP.
 - "Group Member" means a member of the Company Group.
- "Indemnitee" means (a) any Existing Owner, (b) any Person who is or was an Affiliate of the Company or any Existing Owner, (c) any Person who is or was a managing member, manager, general partner, shareholder, director, officer, fiduciary, agent or trustee of the Company, any Existing Owner or any Affiliate of the Company or any Existing Owner, (d) any Person who is or was serving at the request of the Company, any Existing Owner or any Affiliate of the Company or any Existing Owner as a member, manager, partner, director, officer, fiduciary, agent or trustee of another Person in furtherance of the business or affairs of any Group Member; provided, that a Person shall not be an Indemnitee by reason of providing, on a fee-for-services basis, trustee, fiduciary or custodial services, and (e) any Person the Board designates as an "Indemnitee" for purposes of this Agreement.
- "Independent Director" means a Director who meets the independence requirements of the National Securities Exchange on which PAGP Class A Shares or MLP Common Units are listed or admitted for trading.
- "Initial Offering" means the initial offering and sale of the PAGP Class A Shares to the public, as described in the Registration Statement.
 - "Institutional Investments" has the meaning set forth in Section 11.1.
 - "Kayne Anderson" has the meaning set forth in Section 11.1.

- "Lead Director" has the meaning set forth in Section 6.1(a).
- "Majority in Interest" means, with respect to the Members, Members owning more than fifty percent (50%) of the outstanding Company Units.
 - "Member" or "Members" has the meaning set forth in the preamble hereof.
- "Membership Interest" means a Member's limited liability company interest in the Company which refers to all of a Member's rights and interests in the Company in such Member's capacity as a Member, all as provided in this Agreement and the Act.
 - "Membership Transfer" has the meaning set forth in Section 8.1(a).
 - "MLP" means Plains All American Pipeline, L.P., a Delaware limited partnership.
- "MLP Common Units" has the meaning given to "Common Units" in the MLP Partnership Agreement.
- "MLP Partnership Agreement" means the Seventh Amended and Restated Agreement of Limited Partnership of Plains All American Pipeline, L.P., dated as of October 10, 2017, as such may be further amended, modified, supplemented or restated from time to time in accordance with the terms thereof.
- "MLP Redemption Units" means MLP Common Units received by a Member upon an AAP Redemption.
- "National Securities Exchange" means an exchange registered with the Commission under Section 6(a) of the Securities Exchange Act or any successor to such statute.
- "Non-Management Directors" means the Independent Directors and any Director who is not currently serving as an Officer of the Company or of Plains All American GP LLC.
- "Notice" means a writing, containing the information required by this Agreement to be communicated to a party, and shall be deemed to have been received (a) when personally delivered or sent by facsimile, (b) one day following delivery by overnight delivery courier, with all delivery charges pre-paid, or (c) on the third Business Day following the date on which it was sent by United States mail, postage prepaid, to such party at the address or fax number, as the case may be, of such party as shown on the records of the Company.
 - "Officers" has the meaning set forth in Section 6.9.
- "Original Agreement" means the Amended and Restated Limited Liability Company Agreement of the Company, dated as of October 21, 2013.
- "Original Members" means each of the owners of limited liability company interests in the Company as of the date of the Original Agreement as set forth in Schedule 1 attached hereto.

- "PAA GP LLC Agreement" means the Seventh Amended and Restated Limited Liability Company Agreement of Plains All American GP LLC, dated as of November 15, 2016, as such may be further amended, modified, supplemented or restated from time to time in accordance with the terms thereof.
 - "PAGP" means Plains GP Holdings, L.P., a Delaware limited partnership.
- "PAGP Class A Shares" means the Class A shares in PAGP, having the rights and obligations specified in the PAGP Partnership Agreement.
- "PAGP Class B Shares" means the Class B shares in PAGP, having the rights and obligations specified in the PAGP Partnership Agreement.
- "PAGP Class C Shares" means the Class C shares in PAGP, having the rights and obligations specified in the PAGP Partnership Agreement.
- "PAGP Limited Partners" means the Limited Partners of PAGP as such term is given meaning in the PAGP Partnership Agreement.
- "PAGP Partnership Agreement" means the Second Amended and Restated Agreement of Limited Partnership of PAGP, dated as of November 15, 2016, as such may be further amended, modified, supplemented or restated from time to time in accordance with the terms thereof.
- "PAGP Reverse Stock Split" has the meaning set forth in that certain Simplification Agreement, dated as of July 11, 2016, by and among the Company, PAGP, AAP, the MLP, PAA GP LLC and Plains All American GP LLC.
 - "Permitted Transfer" has the meaning set forth in Section 8.1(a).
- "Permitted Transferee" means any Person who shall have acquired and who shall hold a Company Unit pursuant to a Permitted Transfer.
- "Person" means any individual, partnership, corporation, limited liability company, trust, incorporated or unincorporated organization or other legal entity of any kind.
- "Property" means all assets, real or intangible, that the Company may own or otherwise have an interest in from time to time.
- "Registration Statement" means the Registration Statement on Form S-1 (Registration No. 333-190227) as it has been or as it may be amended or supplemented from time to time, filed by PAGP with the Commission under the Securities Act to register the offering and sale of the PAGP Class A Shares in the Initial Offering.
 - "Representatives" has the meaning set forth in Section 10.4.
 - "Second A&R LLC Agreement" has the meaning set forth in the preamble hereof.

"Securities Act" means the Securities Act of 1933, as amended, supplemented or restated from time to time and any successor to such statute.

"Series A Designated Director" has the meaning set forth in Section 6.1(b).

"Subsidiary" means, with respect to any Person, (a) a corporation of which more than 50% of the voting power of shares entitled (without regard to the occurrence of any contingency) to vote in the election of directors or other governing body of such corporation is owned, directly or indirectly, at the date of determination, by such Person, by one or more Subsidiaries of such Person or a combination thereof, (b) a partnership (whether general or limited) in which such Person or a Subsidiary of such Person is, at the date of determination, a general partner of such partnership, but only if such Person, directly or by one or more Subsidiaries of such Person, or a combination thereof, controls such partnership on the date of determination or (c) any other Person in which such Person, one or more Subsidiaries of such Person, or a combination thereof, directly or indirectly, at the date of determination, has (i) at least a majority ownership interest or (ii) the power to elect or direct the election of a majority of the directors or other governing body of such Person.

"Third A&R LLC Agreement" has the meaning set forth in the recitals hereof.

"Transfer" or "Transferred" means to give, sell, exchange, assign, transfer, pledge, hypothecate, bequeath, devise or otherwise dispose of or encumber, voluntarily or involuntarily, by operation of law or otherwise. When referring to a Company Unit, "Transfer" shall mean the Transfer of such Company Unit whether of record, beneficially, by participation or otherwise.

ARTICLE II GENERAL

- **2.1** Formation. The name of the Company is PAA GP Holdings LLC. The rights and liabilities of the Members shall be as provided in the Act for Members except as provided herein. To the extent that the rights or obligations of any Member are different by reason of any provision of this Agreement than they would be under applicable law in the absence of such provision, to the extent permitted by the Act, this Agreement shall control.
- **2.2** Principal Office. The principal office of the Company shall be located at 333 Clay Street, Suite 1600, Houston, Texas 77002 or at such other place(s) as the Board may determine from time to time.
- **2.3** Registered Office and Registered Agent. The location of the registered office and the name of the registered agent of the Company in the State of Delaware shall be as stated in the Certificate or as determined from time to time by the Board.
- **2.4** Purpose of the Company. The Company's purposes, and the nature of the business to be conducted and promoted by the Company, are (a) to act as the general partner of PAGP in accordance with the terms of the PAGP Partnership Agreement and (b) to engage in any and all activities necessary, advisable, convenient or incidental to the foregoing.

- **2.5** <u>Date of Dissolution</u>. The Company shall have perpetual existence unless the Company is dissolved pursuant to <u>Article 9</u> hereof. The existence of the Company as a separate legal entity shall continue until cancellation of the Certificate in the manner required by the Act.
- **2.6 Qualification**. The President, Chief Executive Officer, any Vice President, the Secretary and any Assistant Secretary of the Company is hereby authorized to qualify the Company to do business as a foreign limited liability company in any jurisdiction in which the Company may wish to conduct business and each is hereby designated as an authorized person, within the meaning of the Act (or as a "manager" for such limited purposes only, if signature of a manager is required under relevant state regulations) to execute, deliver and file any amendments or restatements of the Certificate and any other certificates and any amendments or restatements thereof necessary for the Company to so qualify to do business in any such state or territory.

2.7 Members.

- (a) <u>Powers of Members</u>. Except to the extent waived or limited in a separate written agreement executed by a Member, the Members shall have the power to exercise any and all rights or powers granted to the Members pursuant to the express terms of this Agreement. Except as expressly provided herein, the Members shall have no power to bind the Company and no authority to act on behalf of the Company.
- (b) Resignation. Except upon a Transfer of all of its Company Units in accordance with this Agreement, a Member may not resign from the Company prior to the dissolution and winding up of the Company. A Member ceases to be a Member only upon such Member holding no Company Units following: (i) a Permitted Transfer of all of such Member's Company Units (other than a "Permitted Transfer" pursuant to clause (a) of the definition of such term in the AAP Partnership Agreement) and the transferee's admission as a substitute Member, all in accordance with the terms of this Agreement or (ii) completion of dissolution and winding up of the Company pursuant to Article IX.
- (c) <u>Ownership</u>. Each Company Unit shall correspond to a "limited liability company interest" as is provided in the Act. The Company shall be the owner of the Property. No Member shall have any ownership interest or right in any Property, including any Property conveyed by a Member to the Company, except indirectly by virtue of a Member's ownership of a Company Unit.
- **2.8** Reliance by Third Parties. Persons dealing with the Company shall be entitled to rely conclusively upon the power and authority of an Officer.

ARTICLE III CAPITALIZATION OF THE COMPANY

- **3.1** <u>Capital Contributions</u>. No capital was contributed to the Company in connection with its formation.
- **3.2** Additional Capital Contributions. No Member shall be required to make any capital contribution to the Company.

3.3 Splits. Any distribution, subdivision or combination of the Company Units shall be accompanied by a simultaneous and proportionate distribution, subdivision or combination of the AAP Class A Units and AAP Class B Units pursuant to the AAP Partnership Agreement and the PAGP Class A Shares, PAGP Class B Shares and PAGP Class C Shares pursuant to the PAGP LP Agreement, and vice versa. This provision shall not be amended unless corresponding changes are made to the AAP Partnership Agreement and the PAGP LP Agreement.

ARTICLE IV DISTRIBUTIONS

- **4.1** <u>Distributions</u>. The Board shall have sole discretion to determine the timing, amount and manner of any distribution of cash or property of the Company. Any distribution declared by the Board shall be paid to the Members in proportion to their Company Units.
- **4.2** Persons Entitled to Distributions. Any distributions to Members pursuant to Section 4.1 shall be made to the Members shown on the records of the Company to be entitled thereto as of the record date for any such distributions established by the Board. Notwithstanding any provision of this Agreement to the contrary, no distribution hereunder shall be permitted if such distribution would violate Section 18-607 of the Act or other applicable law.

ARTICLE V MEMBERS' MEETINGS

- 5.1 Meetings of Members. Meetings of the Members may be held on an annual basis or as otherwise determined by a Majority in Interest. Special meetings of the Members may be held for any purpose or purposes, unless otherwise prohibited by law, and may be called by the Board or by a Majority in Interest. All meetings of the Members shall be held within or outside the State of Delaware as designated from time to time by the Board or by a Majority in Interest and stated in the Notice of the meeting or in a duly executed waiver of the Notice thereof. Members and Authorized Representatives may participate in a meeting of the Members by means of conference telephone or other similar communication equipment whereby all Members or Authorized Representatives participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting, except when a Member or Authorized Representative participates for the express purpose of objecting to the transaction of any business on the ground that the meeting was not lawfully called or convened.
- **5.2 Quorum; Voting Requirement**. The presence, in person or by proxy, of a Majority in Interest of the Members shall constitute a quorum for the transaction of business by the Members. The affirmative vote of a Majority in Interest shall constitute a valid decision of the Members, except where a different vote is required by the Act or this Agreement.
- **5.3 Proxies.** Any Member entitled to vote but expecting to be absent from a meeting shall be entitled to designate in writing (or orally; *provided*, that such oral designation is later confirmed in writing) a proxy (an "*Authorized Representative*") to act on behalf of such Member with respect to such meeting (to the same extent and with the same force and effect as the Member who has designated such Authorized Representative). Such Authorized Representative shall have

full power and authority to act and take actions or refrain from taking actions as the Member by whom such Authorized Representative has been designated.

- 5.4 Action Without Meeting. Any action required or permitted to be taken at any meeting of Members of the Company may be taken without a meeting, without prior Notice and without a vote if a consent in writing setting forth the action so taken is signed by a Majority in Interest, except where a different vote is required by the Act or this Agreement, in which case such consent must be signed by the Members as would be necessary to authorize or take such action at a meeting of the Members. Prompt Notice of the taking of any action taken pursuant to this Section 5.4 by less than the unanimous written consent of the Members shall be given to those Members who have not consented in writing. A consent transmitted by electronic transmission by a Member shall be deemed to be written and signed.
- 5.5 Notice. Notice stating the place, day and hour of the meeting of Members and the purpose for which the meeting is called shall be delivered personally or sent by mail or by facsimile or email not less than one Business Day nor more than 60 days before the date of the meeting by or at the direction of the Board or a representative of a Majority in Interest calling the meeting, to each Member entitled to vote at such meeting.
- 5.6 <u>Waiver of Notice</u>. When any Notice is required to be given to any Member hereunder, a waiver thereof in writing signed by the Member or its Authorized Representative, whether before, at or after the time stated therein, shall be equivalent to the giving of such Notice. Attendance at a meeting will be deemed a waiver of Notice, except when a Member or Authorized Representative participates for the express purpose of objecting to the transaction of any business on the ground that the meeting was not lawfully called or convened.

ARTICLE VI MANAGEMENT AND CONTROL

6.1 Board of Directors.

Except as otherwise provided hereunder, the business and affairs of the Company shall be managed by or under the direction of the Board, which shall, subject to this Section 6.1(a) and Section 6.2(b), consist of up to thirteen (plus up to one additional Director which may be appointed by the Series A Preferred Unitholders pursuant to Section 6.1(b)) individuals designated as directors of the Company (the "Directors"). One member of the Board shall be designated to serve as Chairman of the Board and will have the duties described in Section 6.1(f) below. In the event that the roles of Chief Executive Officer of the Company and Chairman of the Board are held by the same person, the Non-Management Directors will also designate an Independent Director to serve as Lead Director (the "Lead Director"), who will have the duties described in Section 6.1(g) below, as applicable. Except as otherwise expressly provided herein, the power and authority granted to the Board hereunder shall include all those necessary or convenient for the furtherance of the purposes of the Company and shall include the power to make or delegate to Officers all decisions with regard to the management, operations, assets, financing and capitalization of the Company. The Board will be composed in accordance with the following provisions subject, where applicable, to Section 6.2:

- Subject to Section 6.2, the Chief Executive Officer of the Company (i) shall be a Director. Unless otherwise required pursuant to the Exchange Act and the rules and regulations of the Commission thereunder and by the principal National Securities Exchange on which the PAGP Class A Shares or MLP Common Units are listed, the Board shall include at least a majority of Independent Directors; provided, however, that if at any time there shall be fewer than the required number of Independent Directors, the Board shall take such actions as may be necessary to cause the Board to re-establish the required number of Independent Directors; provided, further, that if at any time there shall be fewer than two Independent Directors qualified to serve on the Conflicts Committee of Plains All American GP LLC, the Board may take such actions as may be necessary to cause the Board to have at least two Independent Directors qualified to serve on such Conflicts Committee of Plains All American GP LLC. In connection therewith, the Board may exercise its Director removal and appointment rights hereunder and may, to the extent required, increase the size of the Board and appoint one or more new Independent Directors to fill the resulting vacancies. Each Director shall hold office until his or her successor is elected pursuant to this Article VI or until his or her earlier death, resignation or removal.
- In the event of the death, resignation or removal of a Director or any vacancy relating to a Director, including a vacancy that arises by virtue of the expiration of the term of a Director, a majority of the remaining Directors may designate a replacement Director. In the event a Director serving as an Officer of the Company no longer holds such office for any reason, such individual shall be automatically removed as a Director and (i) in the case of the Chief Executive Officer, the successor to such individual as Chief Executive Officer of the Company shall, by virtue of such appointment, be designated to replace such individual as a Director, and (ii) in the case of any other Officer, the Board shall fill the vacancy by a majority vote of the remaining Directors (it being understood that such former Officer shall be eligible for re-appointment to the Board by such majority vote). In the event of the death, resignation or removal of a Director serving as Chairman of the Board or Lead Director (or the expiration of such Director's term without reappointment), the Board shall designate a new Chairman and the Non-Management Directors shall designate a new Lead Director, who may or may not be the same individual designated to fill the Board vacancy resulting from such death, resignation or removal.
- (b) If a Series A Trigger Event (as such term is defined in the MLP Partnership Agreement) occurs, then the Series A Preferred Unitholders (as such term is defined in the MLP Partnership Agreement) shall have the right, upon written notice, to appoint one representative to the Board, as set forth in the MLP Partnership Agreement, but such right shall be subject to the terms set forth in this Agreement. The Board representative identified in the notice delivered by the Series A Preferred Unitholders shall be referred to herein as the "Series A Designated Director." The Series A Designated Director must, in the reasonable judgment of the Board, (i) have the requisite skill and experience to serve as a director of a public company in the energy sector, (ii) not be prohibited from serving as a director pursuant to any rule or regulation of the Commission or the National Securities

Exchange on which the PAGP Class A Shares or MLP Common Units are listed or admitted to trading, and (iii) not be an employee or a director of any Competitor (as defined below); provided, that an individual employed by a financial institution, fund or investment vehicle, who serves as a director of a portfolio company of such institution, which portfolio company is a Competitor, shall not be excluded from serving as a Series A Designated Director solely by virtue of such role as a director of such portfolio company. For purposes of the immediately preceding sentence the term "Competitor" shall mean any entity that (a) is an operating company (and not a financial institution) and (b) competes with the MLP in the transportation, storage, terminaling or marketing of crude oil or natural gas liquids in the United States or Canada. If the Series A Preferred Unitholders exercise their right to appoint a Series A Designated Director, such Series A Designated Director shall be a member of the Board until such Series A Designated Director is removed pursuant to Section 6.1(c) or Section 6.1(d). Any Series A Designated Director shall have all the rights and duties of a Director otherwise serving hereunder.

- Prior to a Designation Right Termination Event (as defined below), the Series A Designated Director may be removed or replaced by the Series A Purchasers (as defined in the MLP Partnership Agreement) at any time for any reason or by majority vote of the other Directors for "cause" (as defined below); and any vacancy occurring by reason of the death, disability, resignation, removal or other cessation of a person serving as a Series A Designated Director shall be filled by a vote of the Series A Preferred Unitholders holding a majority of the then outstanding Series A Preferred Units and the subsequent delivery of written notice to the Company. As used herein, "cause" means that the Series A Designated Director (i) is prohibited from serving as a director under any rule or regulation of the Commission or the National Securities Exchange on which the PAGP Class A Shares or MLP Common Units are listed; (ii) while serving as the Series A Designated Director, is convicted by a court of competent jurisdiction of a felony; (iii) a court of competent jurisdiction has entered a final, non-appealable judgment finding the Series A Designated Director liable for actual fraud or willful misconduct against PAGP or the MLP (including, but not limited to, intentionally or willfully failing to observe any obligations of confidentiality to PAGP or the MLP); (iv) is determined to have acted intentionally or in bad faith in a manner that results in a material detriment to the assets, business or prospects of PAGP or the MLP; or (v) is terminated, removed or resigns for any reason from his or her position, if any, with any such Series A Preferred Unitholder at which the Series A Designated Director was employed at the time of his or her appointment as the Series A Designated Director. Any action by the Series A Preferred Unitholders to designate, remove or replace a Series A Designated Director shall be evidenced in writing furnished to the Company, shall include a statement that the action has been approved by a vote of the Series A Preferred Unitholders holding a majority of the then outstanding Series A Preferred Units and shall be executed by or on behalf of the Series A Unitholders.
- (d) Upon payment by the MLP to the Series A Preferred Unitholders of all accrued but unpaid distributions on the Series A Preferred Units then outstanding following a Series A Trigger Event (a "Designation Right Termination Event"), the right of the Series A Preferred Unitholders to designate a Series A Designated Director shall automatically terminate (unless and until another Series A Trigger Event shall have occurred) and the Series A Designated Director then serving as a member of the Board

shall, promptly upon (and in any event within two (2) Business Days following) receipt of a written request from the Board, resign as a member of the Board. If the Series A Designated Director does not resign upon such request, then a majority of the other Directors then serving on the Board may remove the Series A Designated Director as a member of the Board.

- (e) Notwithstanding anything herein to the contrary, while a Conflicts Committee of Plains All American GP LLC is empaneled, each Independent Director serving on such conflicts committee shall abstain from all decision-making activities of the Board with respect to matters being considered by, or that have been assigned to, such conflicts committee.
- (f) The Chairman of the Board will provide leadership to the Board and coordinate the activities of the Board. Specific responsibilities of the Chairman of the Board will vary as follows depending on whether the roles of CEO and Chairman of the Board are held by the same person:
 - (i) If and for so long as the roles of CEO and Chairman of the Board are held by the same person, the responsibilities of the Chairman of the Board will include the following:
 - (A) presiding at regular and special meetings of the Board, and at annual and special meetings of equity holders;
 - (B) working with the Governance Committee to ensure the perpetuation of a strong Board and effective governance structure;
 - in consultation with the Lead Director, developing and communicating Board meeting schedules and agendas;
 - (D) working with the Lead Director to establish parameters for the quality, amount and timeliness of the information flow between management and the Board (it being understood that management is responsible for the preparations of materials for the Board consistent with these parameters);
 - (E) conferring with the Lead Director regarding the development, implementation and monitoring of near- and long-term strategic plans and major activities of the Company and confirming with the Lead Director that Board decisions and policies have been implemented; and
 - (F) working cooperatively and collaboratively with the Lead Director as necessary to support and facilitate the discharge by the Lead Director of his or her duties as outlined in Section 6.1(g) below; and

- (ii) If and for so long as the roles of CEO and Chairman of the Board are not held by the same person, the responsibilities of the Chairman of the Board will include the following:
 - (A) presiding at regular and special meetings of the Board, meetings of the Non-Management Directors, and at annual and special meetings of equity holders;
 - (B) working with the Governance Committee to ensure the perpetuation of a strong Board and effective governance structure;
 - (C) in consultation with the CEO, developing and communicating Board meeting schedules and agendas;
 - (D) acting as a liaison between management and the Board;
 - (E) providing advice and counsel to the CEO on various corporate issues;
 - (F) establishing parameters for the quality, amount and timeliness of the information flow between management and the Board (it being understood that management is responsible for the preparations of materials for the Board consistent with these parameters);
 - (G) conferring with the CEO regarding the development, implementation and monitoring of near- and long-term strategic plans and major activities of the Company and confirming with the CEO that Board decisions and policies have been implemented;
 - (H) assuring that the Board provides resources to both the CEO and management to achieve the Company's stated goals;
 - (I) guiding the Board in discharging its responsibilities (including with respect to the retention of outside advisors where needed) and directing the Board toward Board matters and away from management matters that are clearly the responsibility of the CEO; and
 - (J) supporting and promoting business relationships as appropriately requested by management.
- (g) If and for so long as a Lead Director is serving, his or her specific responsibilities will include the following:
 - (i) presiding at regular and special meetings of the Board when the Chairman of the Board is not present or able to do so, and calling and/or presiding at meetings of the Non-Management Directors (and briefing the Chairman of the Board on discussions);

- (ii) developing and communicating the agenda for executive sessions of the Board and meetings of the Non-Management Directors;
- (iii) collaborating with the Chairman of the Board on Board meeting schedules and agendas;
- (iv) working with the Chairman of the Board to establish parameters for the quality, amount and timeliness of the information flow between management and the Board (it being understood that management is responsible for the preparations of materials for the Board consistent with these parameters)
- (v) ensuring that the Non-Management Directors have proper input into meeting agendas and materials sent to the Board;
- (vi) acting as a liaison between the Non-Management Directors and the Chairman of the Board;
- (vii) providing advice and counsel to the CEO on various corporate issues;
- (viii) conferring with the Chairman of the Board regarding the development, implementation and monitoring of near- and long-term strategic plans and major activities of the Company and confirming with the Chairman of the Board that Board decisions and policies have been implemented;
- (ix) together with the chairman of the Governance Committee (if separate), guiding the annual board self-assessment process;
- (x) guiding the CEO succession planning process and the Board's consideration of CEO compensation; and
- (xi) performing any other function as the Board may direct or request, to the extent consistent with the foregoing.

6.2 Classification of the Board.

- (a) The Eligible Directors shall be divided into three classes denominated as Class I, Class II and Class III (each being referred to herein as a "Class"). If the size of the Board is increased or decreased in accordance with the terms of this Agreement, or if a Director becomes an Eligible Director and is not otherwise assigned to a Class by virtue of the immediately preceding sentence, the Board shall adjust the makeup of the Classes such that Directors are as evenly distributed among Classes as possible.
- (b) Any Series A Designated Director shall continue to be a Director until his or her removal or replacement in accordance with Section 6.1(c) or Section 6.1(d). Each Eligible Director shall serve for a term of three years following the most recent annual meeting at which such Eligible Director was elected, subject to earlier death, resignation or removal as provided herein. At each annual meeting of PAGP Limited Partners,

successors to the class of Directors whose term expires at that annual meeting shall be elected or designated for a three-year term.

- (c) An Eligible Director may be removed with or without Cause upon a vote of a majority of the remaining Directors then in office.
- (d) Individuals shall be nominated for election as Eligible Directors, and the election of Eligible Directors shall be conducted, in accordance with the provisions of the PAGP Partnership Agreement.
- 6.3 Meetings of the Board. The Board may hold meetings, both regular and special, within or outside the State of Delaware. Regular meetings of the Board may be called by the Chairman of the Board, the Lead Director (as appropriate), the Chief Executive Officer or two or more of the Directors upon delivery of written Notice to the remainder of the Board at least five days prior to the date of such meeting. Special meetings of the Board may be called at the request of the Chairman of the Board, the Lead Director (as appropriate), the Chief Executive Officer or any two or more of the Directors upon delivery of written Notice sent to each other Director by the means most likely to reach such Director as may be determined by the Secretary in his or her best judgment so as to be received at least 24 hours prior to the time of such meeting. Notwithstanding anything contained herein to the contrary, such Notice may be telephonic if no other reasonable means are available. Such Notices shall be accompanied by a proposed agenda or general statement of purpose. Advance notice of a meeting may be waived and attendance or participation in a meeting shall be deemed to constitute waiver of any advance notice requirement for such meeting, unless the reason for such participation or attendance is for the express purpose of objecting to the transaction of any business on the basis that the meeting was not lawfully called or convened.
- **6.4 Quorum and Acts of the Board**. A majority of the Directors shall constitute a quorum for the transaction of business at all meetings of the Board, and, except as otherwise provided in this Agreement, the act of a majority of the Directors present at any meeting at which there is a quorum shall be the act of the Board. If a quorum shall not be present at any meeting of the Board, the Directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present. Any action required or permitted to be taken at any meeting of the Board or of any committee thereof may be taken without a meeting, if all members of the Board or committee, as the case may be, consent thereto in writing (including by electronic transmission), and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.
- 6.5 <u>Communications</u>. Members of the Board, or any committee designated by the Board, may participate in a meeting of the Board or any committee thereof by means of conference telephone or similar communications equipment through which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting, except when a Director participates for the express purpose of objecting to the transaction of any business on the ground that the meeting was not lawfully called or convened.

6.6 Committees of Directors.

- (a) The Board, by unanimous resolution of all Directors present and voting at a duly constituted meeting of the Board or by unanimous written consent, may designate one or more committees, each committee to consist of one (1) or more of the Directors. In the event of the disqualification, resignation or removal of a committee member, the Board may appoint another member of the Board to fill such vacancy. Any such committee, to the extent provided in the Board's resolution, shall have and may exercise all the powers and authority of the Board in the management of the Company's business and affairs subject to any limitations contained herein or in the Act. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the Board. Each committee shall keep (or include as a part of the Board's minutes) regular minutes of its meetings and report the same to the Board when required.
- (b) In addition to any other committees established by the Board pursuant to Section 6.6(a), the Board may, as necessary, convene a "Conflicts Committee," which shall be composed of at least two Directors, each of whom shall meet the requirements set forth in the PAGP Partnership Agreement. The Conflicts Committee shall be responsible for (A) approving or disapproving, as the case may be, any matters regarding the business and affairs of the Company, PAGP or AAP submitted to such Conflicts Committee by the Board and (B) performing such other functions as the Board may assign from time to time or as may be specified in a specific delegation to the Conflicts Committee.
- (c) In addition to any other committees established by the Board pursuant to Section 6.6(a), the Board shall maintain an "Audit Committee," which shall be composed of at least three Independent Directors at all times, subject to Section 6.1(a)(i). The Audit Committee shall be responsible for such matters as the Board may assign from time to time or as may be specified in a written charter for the Audit Committee adopted by the Board.
- **6.7** Compensation of Directors. Each Director shall be entitled to reimbursement from the Company for all reasonable direct out-of-pocket expenses incurred by such Director in connection with attending Board meetings and such other compensation as may be approved by the Board.
- **6.8** <u>Directors as Agents</u>. The Board, acting as a body pursuant to this Agreement, shall constitute a "manager" for purposes of the Act. No Director, in such capacity, acting singly or with any other Director, shall have any authority or right to act on behalf of or bind the Company other than by exercising the Director's voting power as a member of the Board, unless specifically authorized by the Board in each instance.
- 6.9 Officers; Agents. The Board shall have the power to appoint any Person or Persons as the Company's officers (the "Officers") to act for the Company and to delegate to such Officers such of the powers as are granted to the Board hereunder. Any decision or act of an Officer within the scope of the Officer's designated or delegated authority shall control and shall bind the Company (and any business entity for which the Company exercises direct or indirect executory authority). The Officers may have such titles as the Board shall deem appropriate, which may include (but need not be limited to) President, Chief Executive Officer, Chief Commercial Officer,

Executive Vice President, Vice President, Chief Operating Officer, Chief Financial Officer, Treasurer, Controller or Secretary. A Director may be an Officer. Unless the authority of an Officer is limited by the Board, any Officer so appointed shall have the same authority to act for the Company as a corresponding officer of a Delaware corporation would have to act for a Delaware corporation in the absence of a specific delegation of authority. The Officers shall hold office until their respective successors are chosen and qualify or until their earlier death, resignation or removal. Any Officer elected or appointed by the Board may be removed at any time by the affirmative vote of a majority of the Board. Any vacancy occurring in any office of the Company shall be filled by the affirmative vote of a majority of the Board.

ARTICLE VII LIABILITY AND INDEMNIFICATION

7.1 Limitation on Liability of Members, Directors and Officers.

Subject to, and as limited by, the provisions of this Agreement, the (a) Members and Directors, in the performance of their duties as such, shall not, to the maximum extent permitted by the Act or other applicable law, owe any duties (including fiduciary duties) as a Member or Director of the Company, notwithstanding anything to the contrary in existing law, in equity or otherwise; provided, however, that for the avoidance of doubt nothing set forth herein shall be deemed to limit the obligations of the "General Partner" under the PAGP Partnership Agreement. Notwithstanding anything to the contrary set forth in this Agreement, no Indemnitee shall be liable for monetary damages to the Company, the Members or any other Persons who have acquired Membership Interests, for losses sustained or liabilities incurred as a result of any act or omission of an Indemnitee in connection with the conduct of the business or affairs of the Company unless there has been a final and non-appealable judgment entered by a court of competent jurisdiction determining that, in respect of the matter in question, the Indemnitee acted in bad faith or engaged in fraud, willful misconduct or, in the case of a criminal matter, acted with knowledge that the Indemnitee's conduct was criminal. Except as required by the Act, the Company's debts, obligations, and liabilities, whether arising in contract, tort or otherwise, shall be solely the debts, obligations and liabilities of the Company, and no Indemnitee shall be personally responsible for any such debt, obligation or liability of the Company solely by reason of being an Indemnitee. No Member shall be responsible for any debts, obligations or liabilities, whether arising in contract, tort or otherwise, of any other Member. The provisions of this Agreement, to the extent that they restrict, eliminate or otherwise modify the duties and liabilities, including fiduciary duties, of any Indemnitee otherwise existing at law or in equity, are agreed by the Members to replace such duties and liabilities of such Indemnitee. To the fullest extent permitted by law, in connection with any action or inaction of, or determination made by, any Indemnitee with respect to any matter relating to the Company, it shall be presumed that the Indemnitee acted in a manner that satisfied the contractual standards set forth in this Agreement, and in any proceeding brought by any Member or by or on behalf of such Member or any other Member or the Company challenging any such action or inaction of, or determination made by, any Indemnitee, the Person bringing or prosecuting such proceeding shall have the burden of overcoming such presumption.

- (b) Any Indemnitee may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, bond, debenture or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties.
- (c) No amendment, modification or repeal of this <u>Section 7.1</u> or any provision hereof shall in any manner terminate, reduce or impair the waiver or limitation on liability with respect to any past, present or future Indemnitee under and in accordance with the provisions of this <u>Section 7.1</u> as in effect immediately prior to such amendment, modification or repeal with respect to claims arising from or relating to matters occurring, in whole or in part, prior to such amendment, modification or repeal, regardless of when such claims may arise or be asserted.

7.2 Indemnification.

- (a) Notwithstanding anything to the contrary set forth in this Agreement and except as required by the Act, to the fullest extent permitted by law but subject to the limitations expressly provided in this Agreement, the Company shall indemnify and hold harmless the Indemnitees (when not acting in violation of this Agreement or applicable law) from and against any and all losses, claims, demands, costs, damages, liabilities, expenses of any nature (including reasonable attorneys' fees and disbursements), judgments, fines, settlements and other amounts arising from any and all claims, demands, actions, suits or proceedings, civil, criminal, administrative or investigative, in which an Indemnitee may be involved, or threatened to be involved, as a party or otherwise, by reason of his, her or its status as an Indemnitee, if such Indemnitee acted in good faith and in a manner he or she subjectively believed to be in, or not opposed to, the interests of the Company and with respect to any criminal proceeding, had no reason to believe his, her or its conduct was unlawful.
- (b) Expenses incurred by an Indemnitee in defending any claim, demand, action, suit or proceeding subject to Section 7.2(a) shall, from time to time, be advanced by the Company prior to the final disposition of such claim, demand, action, suit or proceeding upon receipt by the Company of an undertaking by or on behalf of the Indemnitee to repay such amounts if it is ultimately determined that the Indemnitee is not entitled to be indemnified as authorized in this Section 7.2.
- (c) The indemnification provided by this <u>Section 7.2</u> shall be in addition to any other rights to which an Indemnitee may be entitled pursuant to any approval of the Board, as a matter of law or equity, or otherwise, and shall continue as to an Indemnitee who has ceased to hold the status with respect to which it was an Indemnitee and shall inure to the benefit of the heirs, successors, assigns, and administrators of such Indemnitee. The Company shall not be required to indemnify any Member in connection with any losses, claims, demands, actions, disputes, suits or proceedings, of any Member against any other Member.

- (d) The Company may purchase and maintain directors and officers insurance or similar coverage for its Directors and Officers in such amounts and with such deductibles or self-insured retentions as determined by the Board.
- (e) Any indemnification hereunder shall be satisfied only out of the assets of the Company, and the Members shall not be subject to personal liability by reason of the indemnification provisions under this <u>Section 7.2</u>.
- (f) An Indemnitee shall not be denied indemnification in whole or in part under this Section 7.2 because the Indemnitee had an interest in the transaction with respect to which the indemnification applies if the transaction was otherwise permitted by the terms of this Agreement and all material facts relating to such Indemnitee's interest were adequately disclosed to the Board at the time the transaction was consummated.
- (g) Subject to Section 7.2(c), the provisions of this Section 7.2 are for the benefit of the Indemnitees and the heirs, successors, assigns and administrators of the Indemnitees and shall not be deemed to create any rights for the benefit of any other Persons.
- (h) No amendment, modification or repeal of this <u>Section 7.2</u> or any provision hereof shall in any manner terminate, reduce or impair the right of any past, present or future Indemnitee to be indemnified by the Company or any Affiliate of the Company, nor the obligations of the Company or such Affiliate to indemnify any such Indemnitee under and in accordance with the provisions of this <u>Section 7.2</u> as in effect immediately prior to such amendment, modification or repeal with respect to claims arising from or relating to matters occurring, in whole or in part, prior to such amendment, modification or repeal, regardless of when such claims may arise or be asserted.

ARTICLE VIII TRANSFERS OF UNITS

8.1 General Restrictions.

(a) Except for Transfers that are necessary in order to give effect to (i) an exchange of such Member's AAP Class A Units and PAGP Class B Shares for PAGP Class A Shares in accordance with Section 7.9 of the AAP Partnership Agreement; or (ii) a redemption of such Member's AAP Class A Units for MLP Redemption Units in accordance with Section 7.11 of the AAP Partnership Agreement, a Member shall be prohibited from Transferring any of its Company Units (a "Membership Transfer") unless such Member simultaneously Transfers to the transferee of such Company Units a corresponding number of AAP Class A Units and PAGP Class B Shares in accordance with the applicable terms of the AAP Partnership Agreement, including in compliance with any transfer restriction or right of first refusal provisions contained therein. A transfer in compliance with such terms is referred to herein as a "Permitted Transfer." If for any reason the transfer of such AAP Class A Units or PAGP Class B Shares does not occur simultaneously and proportionately with the Membership Transfer, then the Membership Transfer shall be null and void and of no force and effect.

(b) Notwithstanding any other provision of this Agreement, no Member may pledge, mortgage or otherwise subject its Company Units to any Encumbrance.

8.2 Substitute Members.

- (a) Unless and until admitted as a substitute Member pursuant to this Section 8.2, a transferee of a Member's Company Units shall be an assignee with respect to such Transferred Company Units and shall not be entitled to participate in the management of the business and affairs of the Company or to become, or to exercise the rights of, a Member, including the right to appoint Directors, the right to vote, the right to require any information or accounting of the Company's business, or the right to inspect the Company's books and records. Such transferee shall only be entitled to receive, to the extent of the Company Units Transferred to such transferee, the share of distributions and profits, if any, to which the transferor would otherwise be entitled with respect to the Transferred Company Units. The transferor shall have the right to vote such Transferred Company Units until the transferee is admitted to the Company as a substitute Member with respect to the Transferred Company Units.
- (b) No transferee of all or any of a Member's Company Units shall become a substitute Member in place of the transferor unless and until:
 - (i) Such Transfer is in compliance with the terms of Section 8.1;
 - (ii) the transferee has executed an instrument in form and substance reasonably satisfactory to the Board accepting and adopting, and agreeing to be bound by, the terms and provisions of the Certificate and this Agreement; and
 - (iii) the transferee has caused to be paid all reasonable expenses of the Company in connection with the admission of the transferee as a substitute Member.

Upon satisfaction of all the foregoing conditions with respect to a particular transferee, the books and records of the Company shall be adjusted to reflect the admission of the transferee as a substitute Member to the extent of the Transferred Company Units held by such transferee.

- 8.3 Effect of Admission as a Substitute Member. Unless otherwise provided hereunder, a transferee who has become a substitute Member has, to the extent of the Transferred Company Units, all the rights, powers and benefits of, and is subject to the obligations, restrictions and liabilities of a Member under, the Certificate, this Agreement and the Act. Upon admission of a transferee as a substitute Member, the transferor of the Company Units so held by the substitute Member shall cease to be a Member of the Company to the extent of such Transferred Company Units.
- **8.4** Consent. Each Member hereby agrees that upon satisfaction of the terms and conditions of this Article VIII with respect to any proposed Transfer, the transferee may be admitted as a Member without any further action by a Member hereunder.

- 8.5 No Dissolution. If a Member Transfers all of its Company Units pursuant to this Article VIII and the transferee of such Company Units is admitted as a Member pursuant to Section 8.2, such Person shall be admitted to the Company as a Member effective on the effective date of the Transfer and the Company shall not dissolve pursuant to Section 9.1.
- **8.6** Additional Members. Any Person acceptable to the Board may become an additional Member of the Company on terms and conditions as the Board shall determine, *provided* that such additional Member complies with all the requirements of a transferee under Section 8.2(b)(ii) and (b)(iii).

ARTICLE IX DISSOLUTION AND TERMINATION

9.1 Events Causing Dissolution.

- (a) The Company shall be dissolved and its affairs wound up upon the first to occur of the following events:
 - (i) the consent of at least two-thirds of the members of the Board;
 - (ii) at any time there are no Members, unless the Company is continued in accordance with the Act or this Agreement; or
 - (iii) the entry of a decree of judicial dissolution pursuant to Section 18-802 of the Act.
- (b) The withdrawal, death, retirement, resignation, expulsion, bankruptcy or dissolution of any Member or the occurrence of any other event that terminates the continued membership of any Member in the Company shall not, in and of itself, cause the Company's dissolution.
- **9.2** <u>Final Accounting</u>. Upon dissolution and winding up of the Company, an accounting will be made of the accounts of the Company and each Member and of the Company's assets, liabilities and operations from the date of the last previous accounting to the date of such dissolution.
- **9.3 Distributions Following Dissolution and Termination**. Upon dissolution and liquidation of the Company, the assets of the Company shall be applied and distributed in the following order of priority:
 - (a) to the payment of debts and liabilities of the Company (including to the Members to the extent otherwise permitted by law) and the expenses of liquidation;
 - (b) next, to the setting up of such reserves as the Person required or authorized by law to wind up the Company's affairs may reasonably deem necessary or appropriate for any disputed, contingent or unforeseen liabilities or obligations of the Company, provided that any such reserves shall be paid over by such Person to an escrow agent appointed by the Board, to be held by such agent or its successor for such period as such

Person shall deem advisable for the purpose of applying such reserves to the payment of such liabilities or obligations and, at the expiration of such period, the balance of such reserves, if any, shall be distributed as hereinafter provided; and

(c) the remainder to the Members in proportion to their relative ownership of Company Units.

The provisions of this Agreement, including, without limitation, this Section 9.3, are intended solely to benefit the Members and, to the fullest extent permitted by law, shall not be construed as conferring any benefit upon any creditor of the Company, and no such creditor of the Company shall be a third-party beneficiary of this Agreement, and no Member or Director shall have any duty or obligation to any creditor of the Company to issue any call for capital pursuant to this Agreement.

- **9.4** Termination of the Company. The Company shall terminate when all assets of the Company, after payment or due provision for all debts, liabilities and obligations of the Company, shall have been distributed to the Members in the manner provided for in this Article IX, and the Certificate of Formation of the Company shall have been canceled in the manner required by the Act.
- 9.5 No Action for Dissolution. The Members acknowledge that irreparable damage would be done to the goodwill and reputation of the Company if any Member should bring an action in court to dissolve the Company under circumstances where dissolution is not required by Section 9.1. Accordingly, except where the Board has failed to cause the liquidation of the Company as required by Section 9.1 and except as specifically provided in Section 18-802 of the Act, each Member hereby to the fullest extent permitted by law waives and renounces his right to initiate legal action to seek dissolution of the Company or to seek the appointment of a receiver or trustee to wind up the affairs of the Company, except in the cases of fraud, violation of law, bad faith, willful misconduct or willful violation of this Agreement.

ARTICLE X ACCOUNTING; BOOKS AND RECORDS

- **10.1** Fiscal Year and Accounting Method. The fiscal year and taxable year of the Company shall be the calendar year. The Company shall use an accrual method of accounting.
- **10.2 Books and Records**. The Company shall maintain at its principal office, or such other office as may be determined by the Board, all the following:
 - (a) a current list of the full name and last known business or residence address of each Member, and of each member of the Board;
 - (b) a copy of the Certificate and this Agreement, including any and all amendments to either thereof, together with executed copies of any powers of attorney pursuant to which the Certificate, this Agreement, or any amendments have been executed; and
 - (c) the Company's books and records.

- 10.3 <u>Delivery to Members; Inspection</u>. Upon the request of any Member, for any purpose reasonably related to such Member's interest as a member of the Company, the Board shall cause to be made available to the requesting Member the information required to be maintained by clauses (a) through (c) of <u>Section 10.2</u> and such other information regarding the business and affairs and financial condition of the Company as any Member may reasonably request.
- Non-Disclosure. Each Member (other than PAGP) agrees that, except as otherwise consented to by the Company in writing, all non-public and confidential information furnished to it pursuant to this Agreement will be kept confidential and will not be disclosed by such Member, or by any of its agents, representatives, or employees, in any manner whatsoever (other than to the Company, another Member or any Person designated by the Company), in whole or in part, except that (a) each Member shall be permitted to disclose such information to those of its agents, representatives, and employees who need to be familiar with such information in connection with such Member's investment in the Company (collectively, "Representatives") and are apprised of the confidential nature of such information, (b) each Member shall be permitted to disclose information to the extent required by law, legal process or regulatory requirements, so long as such Member shall have used its reasonable efforts to first afford the Company with a reasonable opportunity to contest the necessity of disclosing such information, (c) each Member shall be permitted to disclose such information to possible purchasers of all or a portion of the Member's Company Units, provided that such prospective purchaser shall execute a suitable confidentiality agreement in a form approved by the Company containing terms not less restrictive than the terms set forth herein, (d) each Member shall be permitted to disclose information to the extent necessary for the enforcement of any right of such Member arising under this Agreement and (e) each Member shall be permitted to report to its shareholders, limited partners, members or other owners, as applicable, regarding the general status of its investment in the Company (without disclosing specific Confidential Information); provided, however, that information shall not be deemed to be confidential information for purposes of this Section 10.4 or Section 11.1, where such information (i) is already known to such Member (or its Representatives), having been disclosed to such Member (or its Representatives) by a third Person without such third Person having an obligation of confidentiality to the Company (ii) is or becomes publicly known through no wrongful act of such Member (or its Representatives) or (iii) is independently developed by such Member (or its Representatives) without reference to any confidential information disclosed to such Member under this Agreement. Each Member shall be responsible for any breach of this Section 10.4 by its Representatives.

ARTICLE XI NON-COMPETITION AND NON-SOLICITATION

11.1 Non-Competition. Each of the Members (other than PAGP) hereby acknowledges that the Company and its Subsidiaries operate in a competitive business and compete with other Persons operating in the midstream segment of the oil and gas industry for acquisition opportunities. Each of the Members agrees that during the period that it is a Member, it shall not, directly or indirectly, use any of the confidential information it receives as a Member to compete with, or engage in or become interested financially in as a principal, employee, partner, shareholder, agent, manager, owner, advisor, lender, guarantor of any Person that competes in North America with, the business conducted by the Company and its Subsidiaries; provided,

however, that when a Member engages in such activities, there shall be no presumption of misuse of such confidential information solely because a Representative of such Member may retain a mental impression of any such confidential information. The Company and the Members acknowledge that a Member may have in conception or development technology or business opportunities which may be very similar or even identical to the Company's confidential information and, so long as such Member abides by Section 10.4, such Member shall have no other restriction on such technology or business opportunities and the Company and the other Members shall have no rights in such technology or business opportunities. The Company and each of the Members also acknowledge and agree that (i) Kayne Anderson Capital Advisors L.P. and its Affiliates ("Kayne Anderson") and EMG Investment, LLC and its Affiliates ("EMG") manage investments in the energy industry in the ordinary course of business (such investments referred to as "Institutional Investments") and that Kayne Anderson and EMG may make Institutional Investments, even if such Institutional Investments are competitive with the Partnership's and its Subsidiaries' business; and (ii) Kayne Anderson and EMG and their respective Affiliates (A) shall not be prohibited, by virtue of its status as a Member, from pursuing or engaging in such Institutional Investments described in clause (i) above or activities or interests described in clause (ii) above, as applicable; (B) shall not be obligated, or have a duty, to inform or present to the Company or any of its Subsidiaries, of any opportunity, relationship or investment (and no other Member will acquire or be entitled to any interest or participation in any such opportunity, relationship or investment) and shall not be bound by the doctrine of corporate opportunity (or any analogous doctrine); and (C) shall not be deemed to have a conflict of interest with, or to have breached this Section 11.1 or any duty (if any), whether express or implied by law, to, the Company or its Affiliates or any other Member by reason of such Member's (or any of its Representative's or equity holder's) involvement in such activities or interests; provided, that in all cases, such Institutional Investments are not in violation of the provisions of Section 10.4 or the second sentence of this Section 11.1. Each of the Members confirms that the restrictions in this Section 11.1 are reasonable and valid and all defenses to the strict enforcement thereof are hereby waived by each of the Members.

- 11.2 Non-Solicitation. Each of the Members (other than PAGP) undertakes toward the Company and is obligated (absent the prior written consent of the Company), during the period that it is a Member and for a period of one year thereafter, not to solicit or hire, directly or indirectly, in any manner whatsoever (except in response to a general solicitation or a non-directed executive search), in the capacity of employee, consultant or in any other capacity whatsoever, one or more of the employees, directors or officers or other Persons (hereinafter collectively referred to as "Employees") who at the time of solicitation or hire, or in the 90-day period prior thereto, are working full-time or part-time for the Company or any of its Subsidiaries and not to endeavor, directly or indirectly, in any manner whatsoever, to encourage any of said Employees to leave his or her job with the Company or any of its Subsidiaries and not to endeavor, directly or indirectly, and in any manner whatsoever, to incite or induce any client of the Company or any of its Subsidiaries to terminate, in whole or in part, its business relations with the Company or any of its Subsidiaries.
- 11.3 <u>Damages</u>. Each of the Members acknowledges that damages may not be an adequate compensation for the losses which may be suffered by the Company as a result of the breach by such Member of the covenants contained in this <u>Article XI</u> and that the Company shall

be entitled to seek injunctive relief with respect to any such breach in lieu of or in addition to any recourse in damages without the posting of a bond or other security.

11.4 <u>Limitations</u>. In the event that a court of competent jurisdiction decides that the limitations set forth in <u>Section 11.1</u> hereof are too broad, such limitations shall be reduced to those limitations that such court deems reasonable.

ARTICLE XII MISCELLANEOUS

12.1 Waiver of Default. No consent or waiver, express or implied, by the Company or a Member with respect to any breach or default by the Company or a Member hereunder shall be deemed or construed to be a consent or waiver with respect to any other breach or default by any party of the same provision or any other provision of this Agreement. Failure on the part of the Company or a Member to complain of any act or failure to act of the Company or a Member or to declare such party in default shall not be deemed or constitute a waiver by the Company or the Member of any rights hereunder.

12.2 Amendment.

- (a) Except as otherwise expressly provided elsewhere in this Agreement, this Agreement shall not be altered, modified or changed except by an amendment approved by the Board; *provided, however*, that
 - (i) no amendment of the terms of this Agreement that (A) increases or extends any financial obligation or liability of a Member or (B) otherwise adversely affects the obligations or rights of a Member (as a Member under this Agreement) in a manner different than a Majority in Interest shall be effective without the prior written consent of such Member;
 - (ii) no amendment of <u>Sections 6.1</u>, <u>6.2</u>, <u>6.3</u>, <u>6.4</u>, <u>11.1</u> or this <u>Section 12.2</u> that adversely affects the obligations or rights of a Member shall be effective as to any Member without the prior written consent of that Member;
 - (iii) no amendment of <u>Article VI</u> that would adversely affect the director election rights of holders of PAGP Class A Shares in any material respect shall be effective without the approval of a majority of the Company's Independent Directors; and
 - (iv) no amendment to Section 6.1(b), Section 6.1(c), Section 6.1(d) or this Section 12.2(a)(iv) shall be effective without the consent of the Series A Preferred Unitholders holding a majority of the then outstanding Series A Preferred Units.
- (b) In addition to any amendments otherwise authorized herein, the Board may make any amendments to any of the Schedules to this Agreement from time to time to reflect transfers of Company Units and issuances of additional Company Units. Copies of such amendments shall be delivered to the Members promptly following execution thereof.

- (c) The Board shall cause to be prepared and filed any amendment to the Certificate that may be required to be filed under the Act as a consequence of any amendment to this Agreement.
- (d) Any modification or amendment to this Agreement or the Certificate made in accordance with this Section 12.2 shall be binding on all Members and the Board.
- 12.3 No Third Party Rights. Except for the rights provided to the Series A Preferred Unitholders in Sections 6.1(b), 6.1(c) and 6.1(d), and as provided in Article VII, none of the provisions contained in this Agreement shall be for the benefit of or enforceable by any third parties, including creditors of the Company.
- 12.4 <u>Severability</u>. In the event any provision of this Agreement is held to be illegal, invalid or unenforceable to any extent, the legality, validity and enforceability of the remainder of this Agreement shall not be affected thereby and shall remain in full force and effect and shall be enforced to the greatest extent permitted by law.
- **12.5** <u>Nature of Interest in the Company</u>. A Member's Company Units shall be personal property for all purposes.
- 12.6 <u>Binding Agreement</u>. Subject to the restrictions on the disposition of Company Units herein contained, the provisions of this Agreement shall be binding upon, and inure to the benefit of, the parties hereto and their respective heirs, personal representatives, successors and permitted assigns.
- **12.7 Headings**. The headings of the sections of this Agreement are for convenience only and shall not be considered in construing or interpreting any of the terms or provisions hereof.
- 12.8 <u>Word Meanings</u>. The words "herein," "hereinafter," "hereof", and "hereunder" refer to this Agreement as a whole and not merely to a subdivision in which such words appear unless the context otherwise requires. The singular shall include the plural, and vice versa, unless the context otherwise requires. Whenever the words "include," "includes" or "including" are used in this Agreement, they shall be deemed to be followed by the words "without limitation." When verbs are used as nouns, the nouns correspond to such verbs and vice versa.
- 12.9 <u>Counterparts</u>. This Agreement may be executed in several counterparts, all of which together shall constitute one agreement binding on all parties hereto, notwithstanding that all the parties have not signed the same counterpart.
- **12.10** Entire Agreement. This Agreement contains the entire agreement between the parties hereto and thereto and supersedes all prior writings or agreements with respect to the subject matter hereof.
- **12.11** Partition. The Members agree that the Property is not and will not be suitable for partition. Accordingly, each of the Members hereby irrevocably waives any and all right such Member may have to maintain any action for partition of any of the Property. No Member shall have any right to any specific assets of the Company upon the liquidation of, or any distribution from, the Company.

12.12 Governing Law; Consent to Jurisdiction and Venue. This Agreement shall be construed according to and governed by the laws of the State of Delaware without regard to principles of conflict of laws. The parties hereby submit to the exclusive jurisdiction and venue of the state courts of Harris County, Texas or to the Court of Chancery of the State of Delaware and the United States District Court for the Southern District of Texas and of the United States District Court for the District of Delaware, as the case may be, and agree that the Company or Members may, at their option, enforce their rights hereunder in such courts.

[Signature page follows]

IN WITNESS WHEREOF, the Company has caused this Agreement to be duly executed on February 25, 2022 and made effective for all purposes as of August 19, 2021.

PAA GP HOLDINGS LLC

By: /s/ Richard McGee Name: Richard McGee

Title: Executive Vice President, General

Counsel and Secretary

SCHEDULE 1

Original Members

Plains GP Holdings L.P.

Oxy Holding Company (Pipeline), Inc.

EMG Investment, LLC.

KAFU Holdings, L.P.

KA First Reserve XII, LLC

KAFU Holdings II, L.P.

Kayne Anderson MLP Investment Company

Kayne Anderson Energy Development Company

Kayne Anderson Midstream/Energy Fund, Inc.

PAA Management, L.P.

Mark E. Strome Living Trust

Strome PAA, L.P.

Windy, L.L.C.

Lynx Holdings I, LLC

Jay M. Chernosky

Kipp PAA Trust

Paul N. Riddle

Russell T. Clingman

David E. Humphreys

Philip J. Trinder

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

As of December 31, 2021, Plains All American Pipeline L.P. has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): its common units representing limited partner interests, which are described in this Exhibit. The following definitions are used in this Exhibit:

- "Partnership," "Plains," "PAA," "we," "us," "our," "ours" and similar terms refer to Plains All American Pipeline, L.P. and its subsidiaries; and
- "General partner," refers to, as the context requires, any or all of PAA GP Holdings LLC ("PAGP GP"), Plains GP Holdings, L.P. ("PAGP"), Plains AAP, L.P. ("AAP") and Plains All American GP LLC ("GP LLC").

DESCRIPTION OF OUR COMMON UNITS

Generally, our common units represent limited partner interests that entitle the holders to participate in our cash distributions and to exercise the rights and privileges available to limited partners under our partnership agreement. For a description of the relative rights and preferences of holders of common units in and to cash distributions, see "Our Cash Distribution Policy."

Our outstanding common units are listed on the Nasdaq Global Select Market under the symbol "PAA." Any additional common units we issue will also be listed on Nasdaq.

Voting

Each holder of common units is entitled to one vote for each common unit on all matters submitted to a vote of the common unitholders. However, our unitholders are limited partners and do not directly or indirectly participate in our management or operation. Unlike holders of common stock in a corporation, our unitholders have only limited voting rights on matters affecting our business or governance, including the director voting rights described below.

Our general partner manages our day-to-day operations and activities; however, PAGP effectively controls our business and affairs through the exercise of its rights as the sole and managing member of GP LLC. The business and affairs of GP LLC are managed by or under the direction of the board of directors of PAGP GP, which we refer to as our "board of directors" or "board."

Subject to limited exceptions, PAGP GP's Fourth Amended and Restated Limited Liability Company Agreement (as amended, the "PAGP GP LLC Agreement") provides that the Board will consist of up to 13 members, including the CEO and, based on current ownership levels, up to two designated directors. In addition, if PAA fails to make three distributions on its Series A preferred units (whether or not consecutive), the holders of Series A preferred units will have the right to appoint a new member of the Board to serve until such time as all accrued and unpaid distributions on the Series A preferred units have been paid in full.

The Board is divided into three staggered classes. At each annual meeting, only the directors of the class whose term is expiring will be up for election and, upon election, the elected directors in that class will serve for a term of three years, subject to a director's earlier resignation, death or removal. If a director is elected to the board to fill a vacancy, that director will have the same remaining term as his or her predecessor.

PAGP holds annual shareholder meetings for the purpose of electing directors. PAA, which holds all of PAGP's issued and outstanding Class C shares, will hold annual meetings of its limited partners entitled to vote immediately in advance of PAGP's annual meetings. The purpose of our annual meetings is to allow our limited partners, other than AAP and holders of our Series B preferred units, to cast a "pass-through" vote instructing us how to vote the Class C shares that we own in the election of directors at PAGP's annual meeting. We will vote (or refrain from voting) our Class C shares for the election of directors at the direction and on behalf of our eligible common and Series A preferred unitholders in the same proportion as the votes received from or withheld by our limited partners. Common units held by AAP will not be voted in the election of directors and will not be counted for purposes of determining whether a quorum exists.

Status as Limited Partner or Assignee

Except as described under "Description of Our Partnership Agreement—Limited Liability," the common units will be fully paid, and common unitholders will not be required to make additional capital contributions to us.

Each purchaser of common units must execute a transfer application whereby the purchaser requests admission as a substituted limited partner and makes representations and agrees to provisions stated in the transfer application. If this action is not taken, a purchaser will not be registered as a record holder of common units on the books of our transfer agent or issued a common unit certificate. Purchasers may hold common units in nominee accounts.

An assignee, pending its admission as a substituted limited partner, is entitled to an interest in us equivalent to that of a limited partner with respect to the right to share in allocations and distributions, including liquidating distributions. Our general partner will vote and exercise other powers attributable to common units owned by an assignee who has not become a substituted limited partner at the written direction of the assignee. A nominee or broker who has executed a transfer application with respect to common units held in street name or nominee accounts will receive distributions and reports pertaining to its common units.

Redemption Right

Each holder of AAP's Class A units (other than PAGP and GP LLC) has the right (a "Redemption Right") to cause AAP to redeem any or all of such holder's AAP Class A units in exchange for the distribution of an equivalent number of our common units held by AAP. In connection with any such redemption, the redeeming holder will transfer the AAP Class A units to AAP and a corresponding number of PAGP Class B shares and general partner units (if any), in each case, to PAGP. The AAP Class A units transferred to AAP will be canceled, the PAGP Class B shares transferred to PAGP will be canceled and the general partner units transferred to PAGP will remain outstanding and increase PAGP's ownership percentage in PAGP GP.

As long as PAGP's Class A shares are publicly traded, a holder of Class B units of AAP (the "AAP management units") will be entitled to convert his or her vested AAP management units into AAP Class A units and a like number of PAGP Class B shares based on a conversion ratio of approximately 0.941 AAP Class A units and PAGP Class B shares for each AAP management unit. Following any such conversion, the holder will have the Redemption Right as a holder of AAP's Class A units. Holders of vested AAP management units who convert such units into AAP Class A units and PAGP Class B shares will not receive general partner units and thus will not need to include any general partner units in a transfer or the exercise of their Redemption Right.

The above mechanisms are subject to customary conversion rate adjustments for equity splits, equity dividends and reclassifications.

OUR CASH DISTRIBUTION POLICY

Distributions of Available Cash

General. We will distribute to our unitholders, on a quarterly basis, all of our available cash in the manner described below.

Definition of Available Cash. Available cash generally means, for any quarter ending prior to liquidation, all cash and cash equivalents on hand at the end of that quarter less reserves established in the reasonable discretion of the general partner for future requirements to:

- · provide for the proper conduct of our business and the business of our operating partnerships (including reserves for future capital expenditures and for our anticipated future credit needs);
- · comply with applicable law or any loan agreement, security agreement, mortgage, debt instrument or other agreement or obligation; or
- provide funds for distributions to our Series A and Series B preferred unitholders or distributions to our common unitholders for of any one or more of the next four quarters.

Our available cash also includes cash on hand resulting from borrowings made after the end of the quarter.

Operating Surplus and Capital Surplus

General. Cash distributions to our common unitholders will be characterized as either operating surplus or capital surplus. We distribute available cash from operating surplus differently than available cash from capital surplus. See "—Quarterly Distributions of Available Cash."

 ${\it Definition\ of\ Operating\ Surplus.}\ Operating\ surplus\ refers\ generally\ to:$

- · our cash balances on the closing date of our initial public offering; plus
- \$25 million; plus
- · all of our cash receipts from operations, excluding cash that is capital surplus; less
- all of our operating expenses, debt service payments (but not including payments required with the sale of assets or any refinancing with the proceeds of new indebtedness or an equity offering), maintenance capital expenditures and reserves established for future operations.

Definition of Capital Surplus. Capital surplus will generally be generated only by:

- · borrowings other than working capital borrowings;
- · sales of debt and equity securities; and
- · sales or other dispositions of assets for cash, other than inventory, accounts receivable and other assets in the ordinary course of business.

We will treat all available cash distributed as coming from operating surplus until the sum of all available cash distributed after the closing date of our initial public offering equals the operating surplus as of the end of the quarter prior to the distribution. Any available cash in excess of operating surplus, regardless of its source, will be treated as capital surplus.

If we distribute available cash from capital surplus for each common unit in an aggregate amount per common unit equal to the initial public offering price of the common units, there will not be a distinction between operating surplus and capital surplus, and all distributions of available cash will be treated as operating surplus. We do not anticipate that we will make distributions from capital surplus.

Effect of Issuance of Additional Units

We can issue additional common units or other equity securities for consideration and under terms and conditions approved by our general partner in its sole discretion and without the approval of our unitholders, other than current holders of our Series A preferred units and Series B preferred units in certain circumstances. We may fund acquisitions through the issuance of additional common units or other equity securities.

Holders of any additional common units that we issue will be entitled to share equally with our then-existing common unitholders in distributions of available cash. In addition, the issuance of additional interests may dilute the value of the interests of the then-existing unitholders.

Quarterly Distributions of Available Cash

After making distributions to holders of our outstanding preferred units, we will distribute the remainder of our available cash for each quarter prior to our liquidation to our common unitholders. We expect to make distributions of all available cash within 45 days after the end of each quarter to holders of record on the applicable record date.

Distributions from Operating Surplus

We will make distributions of available cash from operating surplus to all common unitholders, pro rata until we distribute an aggregate amount of available cash equal to the aggregate operating surplus generated by the Partnership from the time of our initial public offering through the end of the quarter in respect of such distribution.

Distributions from Capital Surplus

We will make distributions of available cash from capital surplus to all common unitholders pro rata. We may not make distributions of capital surplus without the approval of (i) holders of at least 75% of the outstanding Series A preferred units and (ii) holders of at least $66^2/3\%$ of the outstanding Series B preferred units.

Distribution of Cash upon Liquidation

If we dissolve and liquidate, we will sell or otherwise dispose of our assets and adjust the partners' capital account balances to reflect any resulting gain or loss. We will apply the proceeds of liquidation (i) first to the payment of our creditors in the order of priority provided in our partnership agreement and by law, (ii) second to the holders of outstanding preferred units in accordance with their adjusted capital account balances and (iii) thereafter, to the common unitholders in accordance with their adjusted capital account balances.

DESCRIPTION OF OUR PARTNERSHIP AGREEMENT

The following is a summary of certain material provisions of our partnership agreement.

Purpose

Our purpose under our partnership agreement is to serve as a partner of our operating partnerships and to engage in any business activities that may be engaged in by our operating partnerships or that are approved by our general partner. The partnership agreements of our operating partnerships provide that they may engage in any activity that was engaged in by our predecessors at the time of our initial public offering or reasonably related thereto and any other activity approved by our general partner.

Applicable Law; Forum, Venue and Juris diction

Our partnership agreement is governed by Delaware law. Our partnership agreement requires that any claims, suits, actions or proceedings:

- arising out of or relating in any way to the partnership agreement (including any claims, suits or actions to interpret, apply or enforce the provisions of the partnership agreement or the duties, obligations or liabilities among unitholders or of unitholders to us, or the rights or powers of, or restrictions on, the unitholders or us);
- brought in a derivative manner on our behalf;
- asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of us or our general partner, or owed by our general partner to us or the unitholders;
- · asserting a claim arising pursuant to any provision of the Delaware Revised Uniform Limited Partnership Act (the "Delaware Act"); or

· asserting a claim governed by the internal affairs doctrine,

shall be exclusively brought in the Court of Chancery of the State of Delaware (or, if such court does not have subject matter jurisdiction thereof, any other court located in the State of Delaware with subject matter jurisdiction), regardless of whether such claims, suits, actions or proceedings sound in contract, tort, fraud or otherwise, are based on common law, statutory, equitable, legal or other grounds, or are derivative or direct claims. By purchasing a common unit, a unitholder is irrevocably consenting to these limitations and provisions regarding claims, suits, actions or proceedings and submitting to the exclusive jurisdiction of the Court of Chancery of the State of Delaware (or such other Delaware courts) in connection with any such claims, suits, actions or proceedings. The exclusive forum provision would not apply to suits brought to enforce any liability or duty created by the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. To the extent any such claims may be based upon federal law claims, Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder.

Power of Attorney

Each limited partner, and each person who acquires a unit from a unitholder and executes and delivers a transfer application, grants to our general partner and, if appointed, a liquidator, a power of attorney to, among other things, execute and file documents required for our qualification, continuance or dissolution. The power of attorney also grants the authority for the amendment of, and to make consents and waivers under, our partnership agreement.

Issuance of Additional Securities

Our partnership agreement authorizes us to issue an unlimited number of additional limited partner interests and other equity securities that are equal in rank with or junior to our common units on terms and conditions established by our general partner in its sole discretion without the approval of any limited partners.

It is likely that we will fund acquisitions through the issuance of additional common units or other equity securities. Holders of any additional common units we issue will be entitled to share equally with the then-existing holders of common units in our cash distributions. In addition, the issuance of additional partnership interests may dilute the value of the interests of the then-existing holders of common units in our net assets.

In accordance with Delaware law and the provisions of our partnership agreement, we may also issue additional partnership interests that, in the sole discretion of our general partner, may have special voting rights to which common units are not entitled.

Our general partner has the right, which it may from time to time assign in whole or in part to any of its affiliates, to purchase common units or other equity securities whenever, and on the same terms that, we issue those securities to persons other than our general partner and its affiliates, to the extent necessary to maintain their percentage interests in us that existed immediately prior to the issuance. The holders of common units will not have preemptive rights to acquire additional common units or other partnership interests in us.

Amendments to Our Partnership Agreement

Amendments to our partnership agreement may be proposed only by our general partner. Any amendment that materially and adversely affects the rights or preferences of any type or class of limited partner interests in relation to other types or classes of limited partner interests or our general partner interests will require the approval of at least a majority of the type or class of limited partner interests or general partner interests so affected. However, in some circumstances, more particularly described in our partnership agreement, our general partner may make amendments to our partnership agreement without the approval of our limited partners or assignees.

Withdrawal or Removal of Our General Partner

Our general partner may withdraw as general partner without obtaining approval of any unitholder by giving 90 days' written notice, and that withdrawal will not constitute a violation of our partnership agreement. In addition, our general partner may withdraw without unitholder approval upon 90 days' notice to our limited partners if at least 50% of our outstanding units are held or controlled by one person and its affiliates other than our general partner and its affiliates.

Upon the voluntary withdrawal of our general partner, the holders of a majority of our outstanding common units and Series A preferred units, excluding any common units and Series A preferred units held by the withdrawing general partner and its affiliates, may elect a successor to the withdrawing general partner. If a successor is not elected, or is elected but an opinion of counsel regarding limited liability and tax matters cannot be obtained, we will be dissolved, wound up and liquidated, unless within 90 days after that withdrawal, the holders of a majority of our outstanding common units and Series A preferred units, excluding the common units and Series A preferred units held by the withdrawing general partner and its affiliates, agree to continue our business and to appoint a successor general partner.

Our general partner may not be removed unless that removal is approved by the vote of the holders of not less than two-thirds of our outstanding units, including units held by our general partner and its affiliates, and we receive an opinion of counsel regarding limited liability and tax matters. Any removal of this kind is also subject to the approval of a successor general partner by the vote of the holders of a majority of our outstanding common units and Series A preferred units, including those held by our general partner and its affiliates.

While our partnership agreement limits the ability of our general partner to withdraw, it allows the general partner interest to be transferred to an affiliate or to a third party in conjunction with a merger or sale of all or substantially all of the assets of our general partner.

In addition, our partnership agreement expressly permits the sale, in whole or in part, of the ownership of our general partner. Our general partner may also transfer, in whole or in part, the common units it owns

Merger, Sale or Other Disposition of Assets

A merger or consolidation of us requires the prior consent of our general partner. However, our partnership agreement generally prohibits our general partner, without the prior approval of a majority of our outstanding units, from causing us to, among other things, sell, exchange or otherwise dispose of all or substantially all of our assets in a single transaction or a series of related transactions. Our general partner may, however, mortgage, pledge, hypothecate or grant a security interest in all or substantially all of our assets without that approval. Our general partner may also sell all or substantially all of our assets under a foreclosure or other realization upon those encumbrances without that approval.

If conditions specified in our partnership agreement are satisfied, our general partner may merge us or any of our subsidiaries into, or convey some or all of our assets to, a newly formed entity if the sole purpose of that merger or conveyance is to effect a mere change in our legal form into another limited liability entity. Our unitholders are not entitled to dissenters' rights or appraisal rights (and, therefore, will not be entitled to demand payment of a fair price for their units) under our partnership agreement or applicable Delaware law in the event of a merger or consolidation, a sale of substantially all of our assets or any other transaction or event.

Liquidation and Distribution of Proceeds

Upon our dissolution, unless we are reconstituted and continued as a new limited partnership, the person authorized to wind up our affairs (the liquidator) will, acting with all the powers of our general partner that the liquidator deems necessary or desirable in its good faith judgment, liquidate our assets. The proceeds of the liquidation will be applied as follows:

· first, towards the payment of all of our creditors and the creation of a reserve for contingent liabilities;

- next, to all holders of preferred units an aggregate amount equal to the positive balance in their capital accounts distributed in a manner that provides the holders of preferred units with the same percentage of their respective liquidation preferences; and
- finally, to all partners in accordance with the positive balance in their respective capital accounts.

Under some circumstances and subject to some limitations, the liquidator may defer liquidation or distribution of our assets for a reasonable period of time. If the liquidator determines that a sale would be impractical or would cause a loss to our partners, our general partner may distribute assets in kind to our partners.

Change of Management Provisions

Our partnership agreement contains the following specific provisions that are intended to discourage a person or group from attempting to remove our general partner or otherwise change management:

- generally, if a person acquires 20% or more of any class of units then outstanding other than from our general partner or its affiliates, the units owned by such person cannot be voted on any matter; and
- provisions limiting the ability of unitholders to call meetings or to acquire information about our operations, as well as other provisions limiting the unitholders' ability to influence the manner or direction of management.

Limited Call Right

If at any time our general partner and its affiliates (other than, with respect to the Series A preferred units, such affiliates that originally purchased Series A preferred units) own 80% or more of the issued and outstanding limited partner interests of any class, our general partner will have the right to purchase all, but not less than all, of the outstanding limited partner interests of that class that are held by non-affiliated persons. The record date for determining ownership of the limited partner interests would be selected by our general partner on at least 10 but not more than 60 days' notice. The purchase price in the event of a purchase under these provisions would be the greater of (1) the current market price (as defined in our partnership agreement) of the limited partner interests of the class as of the date that notice is mailed to the limited partners as provided in our partnership agreement and (2) the highest cash price paid by our general partner or any of its affiliates for any limited partner interest of the class purchased within the 90 days preceding the date our general partner mails notice of its election to purchase the units.

We are authorized to purchase insurance against liabilities asserted against and expenses incurred by persons for our activities, regardless of whether we would have the power to indemnify the person against liabilities under our partnership agreement.

Registration Rights

Under our partnership agreement, we have agreed to register for resale under the Securities Act and applicable state securities laws any common units, or other partnership securities proposed to be sold by our general partner or any of its affiliates or their assignees if an exemption from the registration requirements is not otherwise available. We are obligated to pay all expenses incidental to the registration, excluding underwriting discounts and commissions.

Limited Liability

Assuming that a limited partner does not participate in the control of our business within the meaning of the Delaware Act and that he otherwise acts in conformity with the provisions of our partnership agreement, his liability under the Delaware Act will be limited, subject to some possible exceptions, generally to the amount of capital he is obligated to contribute to us in respect of his units plus his share of any undistributed profits and assets.

Under the Delaware Act, a limited partnership may not make a distribution to a partner to the extent that at the time of the distribution, after giving effect to the distribution, all liabilities of the partnership, other than liabilities to partners on account of their partnership interests and liabilities for which the recourse of creditors is limited to specific property of the partnership, exceed the fair value of the assets of the limited partnership. For the purposes of determining the fair value of the assets of a limited partnership, the Delaware Act provides that the fair value of the property subject to liability of which recourse of creditors is limited shall be included in the assets of the limited partnership only to the extent that the fair value of that property exceeds the nonrecourse liability. The Delaware Act provides that a limited partner who receives a distribution and knew at the time of the distribution that the distribution of the Delaware Act is liable to the limited partnership for the amount of the distribution for three years from the date of the distribution.

In addition, our partnership agreement limits any fiduciary duties our general partner might owe to our unitholders. As our general partner, our general partner is liable for all of our debts (to the extent not paid from our assets), except for indebtedness or other obligations that are made specifically non-recourse to it. Our general partner has the sole discretion to incur indebtedness or other obligations on our behalf on a non-recourse basis to the general partner. Our general partner has in the past exercised such discretion, in most instances involving payment liability.

FIRST AMENDMENT TO THIRD AMENDED AND RESTATED EMPLOYMENT AGREEMENT

This First Amendment dated effective December 31, 2021 ("Amendment No. 1") to the Third Amended and Restated Employment Agreement (the "Agreement"), effective January 1, 2020, is by and between Plains All American GP LLC (the "Company") and Greg L. Armstrong ("Armstrong" or the "Employee"). Capitalized terms that are used but not defined in this Amendment No. 1 shall have the meanings ascribed to them in the Agreement.

WITNESSETH

WHEREAS, Armstrong and the Company are parties to the Agreement, which was entered into effective as of January 1, 2020;

WHEREAS, the Agreement provides that the term of Mr. Armstrong's employment shall terminate on December 31, 2021, unless sooner terminated pursuant to the terms of the Agreement;

WHEREAS, Mr. Armstrong was elected at the 2021 Annual Meeting to serve as a director of PAA GP Holdings LLC for a three-year term ending on the date of the 2024 Annual Meeting;

WHEREAS, the Board has approved an extension of the term of Mr. Armstrong's employment until the date of the 2024 Annual Meeting; and

WHEREAS, the Company and Armstrong desire to amend the Agreement by entering into this Amendment No. 1, which sets forth their mutual agreement and understanding related to the continued employment of Armstrong and certain related matters as set forth herein.

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

1. <u>Section 1.</u> As amended, Section 2 of the Agreement shall read in full as follows:

"Term. The term of Armstrong's employment with the Company as provided hereunder (the "Term") shall commence on the Effective Date (as defined in the Agreement) and terminate on the date of the 2024 Annual Meeting; provided, however, that (a) Armstrong may terminate his employment with the Company as of any date prior to the date of the 2024 Annual Meeting by giving written notice to the Company at least two weeks prior to the effective date of such termination, (b) at the direction of the Board, the Company may terminate Armstrong's employment with the Company as of any date prior to the date of the 2024 Annual Meeting by giving written notice to Armstrong at least two weeks prior to the effective date of such termination, and (c) Armstrong's employment relationship with the Company shall automatically terminate in the event of his death. The date as of which the

- employment relationship terminates shall constitute the "Termination Date" for purposes hereof."
- Section 2. Except as hereby amended, the Agreement shall remain in full force and effect.

IN WITNESS	WHEREOF,	the Parties	have executed	this Amendmen	t No. 1	effective as
of December 31, 2021						

/s/ Greg L. Armstrong
Greg L. Armstrong

PLAINS ALL AMERICAN GP LLC

By: /s/ Richard McGee Richard McGee

Executive Vice President

SUBSIDIARIES OF PLAINS ALL AMERICAN PIPELINE, L.P. (As of 12/31/2021)

Bakersfield Crude Terminal LLC Cactus II Pipeline LLC Capline Pipeline Company LLC Eagle Ford Crude Terminal LLC Delaware FM Midstream Holdings LLC Delaware Niobrara Crude Terminal LLC Delaware Niobrara Crude Terminal LLC Delaware Onyx Windolfings LLC Delaware Oryx Delaware Oil Transport LLC Delaware Oryx Midstream Holdings LLC Delaware Oryx Wink Oil Pipeline LLC Delaware Oryx Wink Oil Pipeline LLC Delaware PAA Finance Corp. PAA Luxembourg S.a.r.l. Luxembourg PAA Midstream LLC Delaware	Subsidiary	Jurisdiction of Organization
Cactus II Pipeline LLCDelawareCapline Pipeline Company LLCDelawareEagle Ford Crude Terminal LLCDelawareFM Midstream Holdings LLCDelawareFM Gathering LLCDelawareNiobrara Crude Terminal LLCDelawareOMOG JV Holdings LLCDelawareOmyx Delaware Oil Transport LLCDelawareOryx Delaware Oil Transport LLCDelawareOryx Midstream Holdings LLCDelawareOryx Wink Oil Pipeline LLCDelawareOryx Wink Oil Pipeline LLCDelawarePAA Finance Corp.DelawarePAA Luxembourg S.a.r.l.LuxembourgPAA Midstream LLCDelaware	F F	Canada
Capline Pipeline Company LLC Eagle Ford Crude Terminal LLC FM Midstream Holdings LLC FM Gathering LLC FM Gathering LLC Delaware Niobrara Crude Terminal LLC Delaware Niobrara Crude Terminal LLC Delaware OMOG JV Holdings LLC Delaware Oryx Delaware Oil Transport LLC Delaware Oryx Midstream Holdings LLC Delaware Oryx Midstream Holdings LLC Delaware Oryx Mink Oil Pipeline LLC Delaware Oryx Mink Oil Pipeline LLC Delaware PAA Finance Corp. Delaware PAA Luxembourg S.a.r.l. Luxembourg PAA Midstream LLC Delaware	Bakers field Crude Terminal LLC	Delaware
Eagle Ford Crude Terminal LLC FM Midstream Holdings LLC FM Gathering LLC Niobrara Crude Terminal LLC Niobrara Crude Terminal LLC OMOGJV Holdings LLC Delaware OMOGJV Holdings LLC Oryx Delaware Oil Transport LLC Oryx Midstream Holdings LLC Delaware Oryx Midstream Holdings LLC Delaware Oryx Mink Oil Pipeline LLC Delaware Oryx Mink Oil Pipeline LLC Delaware PAA Finance Corp. Delaware PAA Luxembourg S.a.r.l. Luxembourg PAA Midstream LLC Delaware	Cactus II Pipeline LLC	Delaware
FM Midstream Holdings LLC FM Gathering LLC Niobrara Crude Terminal LLC Niobrara Crude Terminal LLC OMOG JV Holdings LLC Oryx Delaware Oryx Delaware Oil Transport LLC Oryx Midstream Holdings LLC Oryx Mids Coll Pipeline LLC Oryx Wink Oil Pipeline LLC PAA Finance Corp. PAA Luxembourg S.a.r.l. Luxembourg PAA Midstream LLC Delaware		Delaware
FM Gathering LLC Delaware Niobrara Crude Terminal LLC Delaware OMOG JV Holdings LLC Delaware Oryx Delaware Oil Transport LLC Delaware Oryx Midstream Holdings LLC Delaware Oryx Wink Oil Pipeline LLC Delaware PAA Finance Corp. Delaware PAA Luxembourg S.a.r.l. Luxembourg PAA Midstream LLC Delaware	Eagle Ford Crude Terminal LLC	Delaware
Niobrara Crude Terminal LLC OMOGJV Holdings LLC Oryx Delaware Oryx Delaware Oil Transport LLC Oryx Midstream Holdings LLC Oryx Mich Oil Pipeline LLC Delaware Oryx Wink Oil Pipeline LLC Delaware PAA Finance Corp. PAA Luxembourg S.a.r.l. Luxembourg PAA Midstream LLC Delaware Delaware Delaware Delaware Delaware Delaware	FM Midstream Holdings LLC	Delaware
OMOGJV Holdings LLC Oryx Delaware Oryx Midstream Holdings LLC Oryx Midstream Holdings LLC Oryx Wink Oil Pipeline LLC PAA Finance Corp. PAA Luxembourg S.a.r.l. PAA Midstream LLC Delaware PAA Midstream LC Delaware Delaware Delaware Delaware Delaware Delaware Delaware	FM Cathering LLC	Delaware
Oryx Delaware Oil Transport LLC Oryx Midstream Holdings LLC Oryx Wink Oil Pipeline LLC PAA Finance Corp. PAA Luxembourg S.a.r.l. PAA Midstream LLC Delaware Luxembourg PAA Midstream LLC Delaware Delaware	Niobrara Crude Terminal LLC	Delaware
Oryx Midstream Holdings LLCDelawareOryx Wink Oil Pipeline LLCDelawarePAA Finance Corp.DelawarePAA Luxembourg S.a.r.l.LuxembourgPAA Midstream LLCDelaware	OMOGJV Holdings LLC	Delaware
Oryx Wink Oil Pipeline LLCDelawarePAA Finance Corp.DelawarePAA Luxembourg S.a.r.l.LuxembourgPAA Midstream LLCDelaware	Oryx Delaware Oil Transport LLC	Delaware
PAA Finance Corp. PAA Luxembourg S.a.r.l. PAA MidstreamLLC Delaware Delaware	Oryx Midstream Holdings LLC	Delaware
PAA Luxembourg S.a.r.l. PAA MidstreamLLC Luxembourg Delaware	Oryx Wink Oil Pipeline LLC	Delaware
PAA Midstream LLC Delaware	PAA Finance Corp.	Delaware
	PAA Luxembourg S.a.r.l.	Luxembourg
PA A Natural Cas Storage I P	PAA Midstream LLC	Delaware
1711 Patural Cus Storage, E.1.	PAA Natural Gas Storage, L.P.	Delaware
PAA Service Corp. Texas	PAA Service Corp.	Texas
PAA/Vulcan Cas Storage, LLC Delaware	PAA/Vulcan Gas Storage, LLC	Delaware
Pacific Pipeline System LLC Delaware		Delaware
Plains All American Emergency Relief Fund, Inc. Texas	Plains All American Emergency Relief Fund, Inc.	Texas
Plains Capline LLC Delaware	Plains Capline LLC	Delaware
Plains Gas Solutions, LLC Texas	Plains Gas Solutions, LLC	Texas
Plains GP LLC Texas	Plains GP LLC	Texas
Plains LPG Services GP LLC Delaware	Plains LPG Services GP LLC	Delaware
Plains LPG Services, L.P. Texas	Plains LPG Services, L.P.	Texas
Plains Marketing Bondholder, LLC Delaware	Plains Marketing Bondholder, LLC	Delaware
Plains Marketing Canada LLC Delaware	Plains Marketing Canada LLC	Delaware
Plains Marketing, L.P. Texas	Plains Marketing, L.P.	Texas
Plains Midstream Canada ULC British Columbia	Plains Midstream Canada ULC	British Columbia
Plains Midstream Holdings Canada ULC British Columbia	Plains Midstream Holdings Canada ULC	British Columbia
Plains Midstream Luxembourg S.a.r.l. Luxembourg	Plains Midstream Luxembourg S.a.r.l.	Luxembourg
Plains Midstream Superior LLC Texas	Plains Midstream Superior LLC	Texas
Plains Oryx Permian Basin LLC Delaware	Plains Oryx Permian Basin LLC	Delaware
Plains Oryx Permian Basin Marketing LLC Delaware	Plains Oryx Permian Basin Marketing LLC	Delaware
Plains Oryx Permian Basin Pipeline LLC Delaware	Plains Oryx Permian Basin Pipeline LLC	Delaware
Plains Pipeline, L.P. Texas	Plains Pipeline, L.P.	Texas
Plains Pipeline Montana LLC Delaware	Plains Pipeline Montana LLC	Delaware
Plains Products Terminals LLC Delaware	Plains Products Terminals LLC	Delaware
Plains Rail Holdings LLC Delaware	Plains Rail Holdings LLC	Delaware
Plains South Texas Gathering LLC Texas	Plains South Texas Gathering LLC	Texas
PMC (Nova Scotia) Company Nova Scotia	PMC (Nova Scotia) Company	Nova Scotia
PNGS GP LLC Delaware	PNCS CPLIC	Delaware

Subsidiary	Jurisdiction of Organization
Rancho LPGHoldings LLC	Delaware
Red River Pipeline Company LLC	Delaware
Rocky Mountain Pipeline Montana LLC	Delaware
St. James Rail Terminal LLC	Delaware
Sunrise Pipeline LLC	Delaware
Van Hook Crude Terminal LLC	Delaware
Western Corridor Pipeline LLC	Delaware

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-138888, 333-155673, 333-162477, 333-214778, 333-221845, 333-259387 and 333-259390) and on Form S-8 (No. 333-91141, 333-74920, 333-122806, 333-141185, 333-193140 and 333-256507) of Plains All American Pipeline, L.P. of our report dated February 28, 2022 relating to the financial statements and the effective LLP.

/s/ PricewaterhouseCoopers LLP

Houston, Texas February 28, 2022

CERTIFICATION

I, Willie Chiang, certify that:

- 1. I have reviewed this annual report on Form 10-K 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: February 28, 2022

/s/ Willie Chiang Willie Chiang

Chief Executive Officer

CERTIFICATION

I, Al Swanson, certify that:

- 1. I have reviewed this annual report on Form 10-K 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, 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: February 28, 2022

/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-K for the period ended December 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
 - 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: February 28, 2022

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-K for the period ended December 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: February 28, 2022