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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2019

or

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

For the transition period from to

Commission file number **1-4300**

APACHE CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**41-0747868**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

One Post Oak Central, 2000 Post Oak Boulevard, Suite 100, Houston, Texas 77056-4400
(Address of principal executive offices) (Zip Code)
Registrant's telephone number, including area code **(713) 296-6000**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.625 par value	**APA**	**New York Stock Exchange**
Common Stock, $0.625 par value	**APA**	**Chicago Stock Exchange**
Common Stock, $0.625 par value	**APA**	**Nasdaq Global Select Market**
7.75% Notes Due 2029	**APA/29**	**New York Stock Exchange**

Securities registered pursuant to section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

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

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

Aggregate market value of the voting and non-voting common equity held by non-affiliates of registrant as of June 28, 2019	$	10,891,448,883
Number of shares of registrant's common stock outstanding as of January 31, 2020		377,316,159

Documents Incorporated By Reference

Portions of registrant's proxy statement relating to registrant's 2020 annual meeting of stockholders have been incorporated by reference in Part II and Part III of this Annual Report on Form 10-K.

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DESCRIPTION

FORWARD-LOOKING STATEMENTS AND RISK

This Annual Report on Form 10-K includes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements other than statements of historical facts included or incorporated by reference in this report, including, without limitation, statements regarding our future financial position, business strategy, budgets, projected revenues, projected costs and plans, and objectives of management for future operations, are forward-looking statements. Such forward-looking statements are based on our examination of historical operating trends, the information that was used to prepare our estimate of proved reserves as of December 31, 2019, and other data in our possession or available from third parties. In addition, forward-looking statements generally can be identified by the use of forward-looking terminology such as "may," "will," "could," "expect," "intend," "project," "estimate," "anticipate," "plan," "believe," or "continue" or similar terminology. Although we believe that the expectations reflected in such forward-looking statements are reasonable, we can give no assurance that such expectations will prove to have been correct. Important factors that could cause actual results to differ materially from our expectations include, but are not limited to, our assumptions about:

- the market prices of oil, natural gas, natural gas liquids (NGLs), and other products or services;
- our commodity hedging arrangements;
- the supply and demand for oil, natural gas, NGLs, and other products or services;
- production and reserve levels;
- drilling risks;
- economic and competitive conditions;
- the availability of capital resources;
- capital expenditure and other contractual obligations;
- currency exchange rates;
- weather conditions;
- inflation rates;
- the availability of goods and services;
- legislative, regulatory, or policy changes, including initiatives addressing the impact of global climate change or further regulating hydraulic fracturing, methane emissions, flaring, or water disposal;
- our performance on environmental, social, and governance measures;
- terrorism or cyberattacks;
- occurrence of property acquisitions or divestitures;
- the integration of acquisitions;
- the securities or capital markets and related risks such as general credit, liquidity, market, and interest-rate risks; and
- other factors disclosed under Items 1 and 2—Business and Properties—Estimated Proved Reserves and Future Net Cash Flows, Item 1A—Risk Factors, Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations, Item 7A—Quantitative and Qualitative Disclosures About Market Risk and elsewhere in this Form 10-K.

All subsequent written and oral forward-looking statements attributable to the Company, or persons acting on its behalf, are expressly qualified in their entirety by the cautionary statements. Except as required by law, we assume no duty to update or revise our forward-looking statements based on changes in internal estimates or expectations or otherwise.

DEFINITIONS

All defined terms under Rule 4-10(a) of Regulation S-X shall have their statutorily prescribed meanings when used in this report. As used in this document:

"3-D" means three-dimensional.

"4-D" means four-dimensional.

"b/d" means barrels of oil or natural gas liquids per day.

"bbl" or "bbls" means barrel or barrels of oil or natural gas liquids.

"bcf" means billion cubic feet of natural gas.

"bcf/d" means one bcf per day.

"boe" means barrel of oil equivalent, determined by using the ratio of one barrel of oil or NGLs to six Mcf of gas.

"boe/d" means boe per day.

"Btu" means a British thermal unit, a measure of heating value.

"Liquids" means oil and natural gas liquids.

"LNG" means liquefied natural gas.

"Mb/d" means Mbbls per day.

"Mbbls" means thousand barrels of oil or natural gas liquids.

"Mboe" means thousand boe.

"Mboe/d" means Mboe per day.

"Mcf" means thousand cubic feet of natural gas.

"Mcf/d" means Mcf per day.

"MMbbls" means million barrels of oil or natural gas liquids.

"MMboe" means million boe.

"MMBtu" means million Btu.

"MMBtu/d" means MMBtu per day.

"MMcf" means million cubic feet of natural gas.

"MMcf/d" means MMcf per day.

"NGL" or "NGLs" means natural gas liquids, which are expressed in barrels.

"NYMEX" means New York Mercantile Exchange.

"oil" includes crude oil and condensate.

"PUD" means proved undeveloped.

"SEC" means United States Securities and Exchange Commission.

"Tcf" means trillion cubic feet of natural gas.

"U.K." means United Kingdom.

"U.S." means United States.

References to "Apache," the "Company," "we," "us," and "our" include Apache Corporation and its consolidated subsidiaries unless otherwise specifically stated.

With respect to information relating to our working interest in wells or acreage, "net" oil and gas wells or acreage is determined by multiplying gross wells or acreage by our working interest therein. Unless otherwise specified, all references to wells and acres are gross.

PART I

ITEMS 1 and 2. *BUSINESS AND PROPERTIES*

GENERAL

Apache Corporation, a Delaware corporation formed in 1954, is an independent energy company that explores for, develops, and produces natural gas, crude oil, and natural gas liquids. Apache currently has exploration and production operations in three geographic areas: the U.S., Egypt, and offshore the U.K. in the North Sea (North Sea). Apache also has exploration interests in Suriname and other international locations that may, over time, result in reportable discoveries and development opportunities. Apache's midstream business is operated by Altus Midstream Company (ALTM) through its subsidiary Altus Midstream LP (collectively, Altus). Altus owns, develops, and operates a midstream energy asset network in the Permian Basin of West Texas, anchored by midstream service contracts to Apache's production from its Alpine High resource play. Additionally, Altus owns equity interests in a total of four Permian Basin pipelines that will access various points along the Texas Gulf Coast, providing it with fully integrated, wellhead-to-water connectivity.

Our common stock, par value $0.625 per share, has been listed on the New York Stock Exchange (NYSE) since 1969, on the Chicago Stock Exchange (CHX) since 1960, and on the Nasdaq Global Select Market (Nasdaq) since 2004. Through our website, www.apachecorp.com, you can access, free of charge, electronic copies of the charters of the committees of our Board of Directors, other documents related to our corporate governance (including our Code of Business Conduct and Ethics and Apache's Corporate Governance Principles), and documents we file with the SEC, including our annual reports on Form 10-K, quarterly reports on Form 10-Q, and current reports on Form 8-K, as well as any amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934. Included in our annual and quarterly reports are the certifications of our principal executive officer and our principal financial officer that are required by applicable laws and regulations. Access to these electronic filings is available as soon as reasonably practicable after we file such material with, or furnish it to, the SEC. You may also request printed copies of our corporate charter, bylaws, committee charters, or other governance documents free of charge by writing to our corporate secretary at the address on the cover of this report. Our reports filed with the SEC are made available on its website at www.sec.gov. From time to time, we also post announcements, updates, and investor information on our website in addition to copies of all recent press releases. Information on our website or any other website is not incorporated by reference into, and does not constitute a part of, this Annual Report on Form 10-K.

Properties to which we refer in this document may be held by subsidiaries of Apache Corporation.

BUSINESS STRATEGY

Our VISION is to be the premier exploration and production company, contributing to global progress by helping meet the world's energy needs.

Our MISSION is to grow in an innovative, safe, environmentally responsible, and profitable manner for the long-term benefit of our stakeholders.

Our STRATEGY is to take a differentiated approach to the exploration and production of cost-advantaged hydrocarbons through innovation, technology, optimization, continuous improvement, and relentless focus on costs to deliver top-tier, long-term returns.

Rigorous management of the Company's asset portfolio plays a key role in optimizing shareholder value over the long term. Over the past several years, Apache has entered into a series of transactions that have upgraded its portfolio of assets, enhanced its capital allocation process to further optimize investment returns, and increased focus on internally generated exploration with full-cycle, returns-focused growth. These efforts included the monetization of certain non-strategic assets, including gas-weighted properties in the Midcontinent/Gulf Coast region and selling other non-core leasehold positions. The Company made strategic decisions to allocate the proceeds of these divestitures to more impactful development opportunities across its portfolio and exploration efforts in Suriname. In addition, in November 2018 the Company completed a transaction with Altus Midstream Company and its then wholly owned subsidiary Altus Midstream LP to create a publicly traded, pure-play, Permian Basin to Gulf Coast midstream C-corporation anchored by gathering, processing, and transmission assets at Alpine High. This transaction facilitated funding the capital requirements for midstream infrastructure and led to the acquisition of equity interests in four Permian Basin long-haul pipeline entities.

Apache's U.S. upstream oil and gas assets are complemented by its international assets in Egypt and the North Sea, each of which adds to the Company's inventory of exploration and development opportunities and generates cash flows in excess of current capital investments, providing the Company greater ability to develop its onshore Permian Basin properties while maintaining financial flexibility in a volatile commodity price environment. Apache's diverse regional portfolio and asset inventory includes, at scale, both conventional and unconventional resources covering oil, rich gas with NGLs, and lean gas. This range of assets provides optionality to fund a capital program capable of delivering a sustainable combination of long-term returns with a moderate pace of growth.

For a more in-depth discussion of the Company's 2019 results, divestitures, strategy, and its capital resources and liquidity, please see Part II, Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations of this Form 10-K.

BUSINESS OVERVIEW

The following business overview further describes the operations and activities for the Company's upstream exploration and production properties, by geographic region, and Altus midstream. Apache has historically employed a decentralized, geographic region-focused approach to operations. In recent years, the Company has centralized certain operational activities in an effort to capture greater efficiencies through shared services. In light of the continued streamlining of the Company's asset portfolio through divestitures and strategic transactions, in late 2019 management initiated a comprehensive redesign of Apache's organizational structure and operations that it believes will better position the Company to be competitive for the long-term and further reduce recurring costs. The reorganization is ongoing and is expected to be substantially completed for the technical functions by the end of the first quarter of 2020. Changes for the corporate support functions will be ongoing through most of 2020.

UPSTREAM EXPLORATION AND PRODUCTION PROPERTIES

Operating Areas

Apache has exploration and production operations in three geographic areas: the U.S., Egypt, and the North Sea. Apache also has exploration interests in Suriname and other international locations that may, over time, result in reportable discoveries and development opportunities.

The following table sets out a brief comparative summary of certain key 2019 data for each of Apache's operating areas. Additional data and discussion are provided in Part II, Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations of this Form 10-K.

	Production	Percentage of Total Production	Production Revenue	Year-End Estimated Proved Reserves	Percentage of Total Estimated Proved Reserves	Gross Wells Drilled	Gross Productive Wells Drilled
	(In MMboe)		(In millions)	(In MMboe)			
United States	102.2	59%	$ 2,763	684	68%	240	240
Egypt[(1)]	48.6	28	2,276	192	19	64	48
North Sea[(2)]	22.1	13	1,276	135	13	11	11
Total	172.9	100%	$ 6,315	1,011	100%	315	299

(1) Apache's operations in Egypt, excluding the impacts of a one-third noncontrolling interest, contributed 21 percent of 2019 production and accounted for 13 percent of year-end estimated proved reserves.
(2) Sales volumes from the North Sea for 2019 were 21.8 MMboe. Sales volumes may vary from production volumes as a result of the timing of liftings in the Beryl field.

United States

In 2019, Apache's U.S. upstream oil and gas operations contributed approximately 59 percent of production and 68 percent of estimated year-end proved reserves. Apache has access to significant liquid hydrocarbons across its 5.2 million gross acres in the U.S., 78 percent of which are undeveloped.

Permian Region The Permian region located in West Texas and New Mexico includes the Permian sub-basins: Midland Basin, Central Basin Platform/Northwest Shelf, and Delaware Basin. Examples of shale plays within this region include the Woodford, Barnett, Pennsylvanian, Cline, Wolfcamp, Bone Spring, and Spraberry. The Permian region is one of Apache's core growth areas. Highlights of the Company's operations in the region include:

- Over 2.9 million gross acres (1.8 million net acres) with exposure to numerous plays focused primarily in the Midland Basin, the Central Basin Platform/Northwest Shelf, and the Delaware Basin.

- Estimated proved reserves of 665.8 MMboe at year-end 2019, representing 66 percent of the Company's worldwide proved reserves.

- In 2019, the Permian region averaged 11 rigs and drilled or participated in 232 wells, 206 of which were horizontal, with a 100 percent success rate.

- Annual production of 254.3 Mboe/d increased 21 percent from 2018. Fourth-quarter 2019 production increased 13 percent from the prior sequential quarter and 22 percent from the fourth quarter of 2018, a reflection of the success of the Company's Midland Basin oil-focused drilling program and production from its Alpine High field.

In late 2016, Apache announced the discovery of a new resource play, "Alpine High." Apache's Alpine High acreage lies in the southern portion of the Delaware Basin, primarily in Reeves County, Texas, and contains multiple geologic formations and target zones spanning the full hydrocarbon phase window from dry gas to wet gas to oil. Over the past two years, the Company focused on geological testing and transitioned to initial tests of full-field development of the Alpine High play, drilling 100 wells and 82 wells in 2018 and 2019, respectively. Given the prevailing gas and NGL price environment and disappointing performance of recent multi-well development pads in the second half of 2019, Apache materially reduced planned investment and currently has no future drilling plans at Alpine High.

Permian region drilling activity outside of Alpine High primarily focused in the Southern Midland Basin, with an average of 3.5 rigs running throughout the year targeting oil plays in the Wolfcamp, Spraberry, and lower Cline formations. The region also ran an average of 1.5 rigs during 2019 on the Company's Delaware Basin acreage in New Mexico focused on oil plays in the Bone Spring formation. For 2019, the region drilled or participated in 150 wells excluding Alpine High activity, with a 100 percent success rate. Since 2017, the region has operated its unconventional oil-focused program at a relatively steady and deliberate pace. This has generated competitive well results, solid returns, and an attractive oil production growth rate. For 2020, the Company plans to reduce its operated rig count in the Permian region but deliver on a low-to-mid-single digit oil growth rate.

Midcontinent/Gulf Coast Region The Midcontinent/Gulf Coast region has historically included developed and undeveloped acreage in western Oklahoma, the Texas Panhandle and the Eagle Ford shale in east Texas. In the second quarter of 2019, Apache completed the sale of non-core, gas-weighted assets in the Woodford-SCOOP and STACK plays for aggregate cash proceeds of approximately $223 million. In the third quarter of 2019, Apache completed the sale of non-core, gas-weighted assets in the western Anadarko Basin of Oklahoma and Texas for aggregate cash proceeds of approximately $322 million and the assumption of asset retirement obligations of $49 million. The asset sales reflect the divestiture of a significant portion of the Company's Midcontinent/Gulf Coast onshore region and further streamlines Apache's portfolio. The region retained acreage of approximately 664,000 gross acres (263,000 net acres) and nearly 240 gross wells (150 net), primarily located in Eagle Ford shale and Austin Chalk areas of Southeast Texas.

Gulf of Mexico Region The Gulf of Mexico region comprises assets in the offshore waters of the Gulf of Mexico and onshore Louisiana. In addition to its interest in several deepwater exploration and development offshore leases, when the Company sold in 2013 substantially all of its offshore assets in water depths less than 1,000 feet, it retained a 50 percent ownership interest in all exploration blocks and in horizons below production in development blocks, and access to existing infrastructure. During 2019, Apache's Gulf of Mexico region continued to operate on a reduced capital budget, having participated in 2 non-operated exploratory wells with an average 15 percent working interest, both of which were successful. The region contributed 4.7 Mboe/d to the Company's total production for the year.

U.S. Marketing In general, most of the Company's U.S. natural gas production is sold at either monthly or daily index-based prices. The tenor of the Company's sales contracts span from daily to multi-year transactions. Natural gas is sold to a variety of customers that include local distribution, utility, and midstream companies as well as end-users, marketers, and integrated major oil companies. Apache strives to maintain a diverse client portfolio, which is intended to reduce the concentration of credit risk. Beginning in 2017, Apache began selling gas to markets in Mexico and to LNG export facilities in the U.S.

Apache primarily markets its U.S. crude oil production to integrated major oil companies, marketing, and transportation companies, and refiners based on a West Texas Intermediate (WTI) price or other regional pricing indices (e.g. WTI Houston, West Texas Sour (WTS), or WTI Midland), adjusted for quality, transportation, and a market-reflective differential.

Apache's objective is to maximize the value of crude oil sold by identifying the best markets and most economical transportation routes available to move the product. Sales contracts are generally 30-day evergreen contracts that renew automatically until canceled by either party. These contracts provide for sales that are priced daily at prevailing market prices. Also, from time to time, the Company will enter into physical term sales contracts. These term contracts typically have a firm transportation commitment and often provide for a higher than prevailing market price.

Apache's U.S. NGL production is sold under contracts with prices based on Gulf Coast supply and demand conditions, less the costs for transportation and fractionation, or on a weighted-average sales price received by the purchaser.

U.S. Delivery Commitments The Company has entered into long-term delivery commitments for natural gas and crude oil, which require Apache to deliver an average of 270 Bcf of natural gas per year for the period from 2020 through 2029 at variable, market-based pricing and deliver an average of 6.7 MMbbl of crude oil per year from 2020 through 2025 at variable, market-based pricing.

Apache currently expects to fulfill its delivery commitments with production from its proved reserves, production from continued development and/or spot market purchases as necessary. Apache may also enter into contractual arrangements to reduce its delivery commitments. The Company has not experienced any significant constraints in satisfying the committed quantities required by its delivery commitments.

For more information regarding the Company's commitments, please see Part II, Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Capital Resources and Liquidity—Contractual Obligations.

International

In 2019, international assets contributed 41 percent of Apache's production and 56 percent of oil and gas revenues. Approximately 32 percent of estimated proved reserves at year-end were located outside the U.S.

Apache has two international regions:

- The Egypt region, which includes onshore conventional assets in Egypt's Western Desert.
- The North Sea region, which includes offshore assets based in the United Kingdom.

The Company also has an offshore exploration program in Suriname.

Egypt Apache has 24 years of exploration, development and operations experience in Egypt and is one of the largest acreage holders in Egypt's Western Desert. At year-end 2019, the Company held 5.1 million gross acres in 24 separate concessions. Development leases within concessions currently have expiration dates ranging from 4 to 24 years, with extensions possible for additional commercial discoveries or on a negotiated basis. Approximately 70 percent of the Company's gross acreage in Egypt is undeveloped, providing Apache with considerable exploration and development opportunities for the future.

Apache's Egypt operations are conducted pursuant to production sharing contracts (PSCs). Under the terms of the Company's PSCs, the contractor partner (Contractor) bears the risk and cost of exploration, development, and production activities. In return, if exploration is successful, the Contractor receives entitlement to variable physical volumes of hydrocarbons, representing recovery of the costs incurred and a stipulated share of production after cost recovery. Additionally, the Contractor's income taxes, which remain the liability of the Contractor under domestic law, are paid by Egyptian General Petroleum Corporation (EGPC) on behalf of the Contractor out of EGPC's production entitlement. Income taxes paid to the Arab Republic of Egypt on behalf of the Contractor are recognized as oil and gas sales revenue and income tax expense and reflected as production and estimated reserves. Because Contractor cost recovery entitlement and income taxes paid on its behalf are determined as a monetary amount, the quantities of production entitlement and estimated reserves attributable to these monetary amounts will fluctuate with commodity prices. In addition, because the Contractor income taxes are paid by EGPC, the amount of the income tax has no economic impact on Apache's Egypt operations despite impacting Apache's production and reserves.

The Company's estimated proved reserves in Egypt are reported under the economic interest method and exclude the host country's share of reserves. In addition, Sinopec International Petroleum Exploration and Production Corporation (Sinopec) holds a one-third minority participation interest in Apache's oil and gas operations in Egypt. The Egypt region, including the one-third noncontrolling interest, contributed 28 percent of 2019 production and 19 percent of year-end estimated proved reserves. Excluding the impacts of the noncontrolling interest, Egypt contributed 21 percent of 2019 production and 13 percent of year-end estimated proved reserves.

In 2019, the region drilled 41 development and 23 exploration wells. A key component of the region's success has been the ability to acquire and evaluate 3-D seismic surveys that enable Apache's technical teams to consistently high-grade existing prospects and identify new targets across multiple pay horizons in the Cretaceous, Jurassic, and deeper Paleozoic formations. The Company has completed seismic surveys covering over 3 million acres to date. The region continues to build and enhance its drilling inventory, supplemented with recent seismic acquisitions and new play concept evaluations, on both new and existing acreage. Heading into 2020, the region plans to advance its large-scale seismic shoot and continue to build its prospect inventory.

North Sea Apache has interests in approximately 419,000 gross acres in the U.K. North Sea. The region contributed 13 percent of Apache's 2019 production and approximately 13 percent of year-end estimated proved reserves.

Apache entered the North Sea in 2003 after acquiring an approximate 97 percent working interest in the Forties field (Forties). Since acquiring Forties, Apache has actively invested in the region and has established a large inventory of drilling prospects through successful exploration programs and the interpretation of 4-D seismic. Building upon its success in Forties, in 2011 Apache acquired Mobil North Sea Limited, providing the region with additional exploration and development opportunities across numerous fields, including operated interests in the Beryl, Ness, Nevis, Nevis South, Skene, and Buckland fields and a non-operated interest in the Maclure field. Apache also has a non-operated interest in the Nelson field acquired in 2011. The Beryl field, which is a geologically complex area with multiple fields and stacked pay potential, provides for significant exploration opportunity. The North Sea region plays a strategic role in Apache's portfolio by providing competitive investment opportunities and potential reserve upside with high-impact exploration potential.

During 2019, the region drilled 11 development wells with a 100 percent success rate: five platform wells in the Forties field, three platform wells in the Beryl field, and three subsea wells in the Beryl area.

The North Sea region's Storr exploration discovery came on-line in the fourth quarter of 2019, and its second well at Garten came on-line in the first quarter of 2020. The first well at the Company's Storr development is a high-rate gas condensate well that is tied back to existing infrastructure at the Beryl Alpha platform. The Garten #2 well encountered approximately 1,200 feet of net pay and compares favorably to the Garten #1 well, which came on-line in November 2018 with initial 30-day production rates of 13 Mb/d and 17 MMcf/d from 700 feet of net pay. Apache holds a 100 percent working interest in the Garten complex.

In 2020, the Company plans to run one to two platform rigs in the North Sea between the Forties and Beryl assets as well as a semi-submersible rig drilling principally in the Beryl area where the Company has short-cycle subsea tie-back opportunities.

International Marketing Apache's natural gas production in Egypt is sold to EGPC primarily under an industry-pricing formula, a sliding scale based on Dated Brent crude oil with a minimum of $1.50 per MMBtu and a maximum of $2.65 per MMBtu, plus an upward adjustment for liquids content. Crude oil production is sold to third parties in the export market or to EGPC when called upon to supply domestic demand. Oil production sold to third parties is sold and exported from one of two terminals on the northern coast of Egypt. Oil production sold to EGPC is sold at prices related to the export market.

Apache's North Sea crude oil production is sold under term, entitlement volume contracts and fixed volume spot contracts with a market-based index price plus a differential to capture the higher market value under each type of arrangement. Natural gas from the Beryl field is processed through the Scottish Area Gas Evacuation (SAGE) gas plant, which Apache divested to Ancala Midstream Acquisitions Limited in late 2017. The gas is sold to a third party at the St. Fergus entry point of the national grid on a National Balancing Point index price basis. The condensate mix from the SAGE plant is processed further downstream. The split streams of propane and butane are sold on a monthly entitlement basis, and condensate is sold on a spot basis at the Braefoot Bay terminal using index pricing less transportation.

Other Exploration

New Ventures Apache's global New Ventures team provides exposure to new growth opportunities by looking outside of the Company's traditional core areas and targeting higher-risk, higher-reward exploration opportunities located in frontier basins as well as new plays in more mature basins.

In December 2019, Apache entered into a joint venture agreement with Total S.A. to explore and develop Block 58 offshore Suriname. Apache holds a 50 percent working interest in Block 58, which comprises approximately 1.4 million acres in water depths ranging from less than 100 meters to more than 2,100 meters. During 2019, the Company drilled an exploration well, the Maka Central-1, in Block 58 and announced a significant oil discovery in January 2020. The well successfully tested for the presence of hydrocarbons in multiple stacked targets in the upper Cretaceous-aged Campanian and Santonian intervals and encountered both oil and gas condensate. The Company began drilling its second exploration well, Sapakara West-1, in January 2020. Following completion of the Sapakara West-1, the Company will drill a third, and likely a fourth exploration test in Block 58 during 2020.

Drilling Statistics

Worldwide in 2019, Apache drilled or participated in drilling 315 gross wells, with 299 (95 percent) completed as producers. Historically, Apache's drilling activities in the U.S. have generally concentrated on exploitation and extension of existing producing fields rather than exploration. As a general matter, Apache's operations outside of the U.S. focus on a mix of exploration and development wells. In addition to Apache's completed wells, at year-end a number of wells had not yet reached completion: 105 gross (99.8 net) in the U.S., 25 gross (23.7 net) in Egypt, 5 gross (3.8 net) in the North Sea, and 1 gross (0.5 net) in Suriname.

The following table shows the results of the oil and gas wells drilled and completed for each of the last three fiscal years:

	Net Exploratory			Net Development			Total Net Wells		
	Productive	Dry	Total	Productive	Dry	Total	Productive	Dry	Total
2019									
United States	6.3	—	6.3	181.0	—	181.0	187.3	—	187.3
Egypt	8.5	13.5	22.0	37.2	1.5	38.7	45.7	15.0	60.7
North Sea	—	—	—	8.4	—	8.4	8.4	—	8.4
Total	14.8	13.5	28.3	226.6	1.5	228.1	241.4	15.0	256.4
2018									
United States	47.6	5.3	52.9	188.9	2.0	190.9	236.5	7.3	243.8
Egypt	28.2	12.5	40.7	57.9	0.5	58.4	86.1	13.0	99.1
North Sea	1.0	0.5	1.5	6.3	—	6.3	7.3	0.5	7.8
Total	76.8	18.3	95.1	253.1	2.5	255.6	329.9	20.8	350.7
2017									
United States	42.9	4.3	47.2	101.5	1.0	102.5	144.4	5.3	149.7
Canada	—	1.0	1.0	0.2	—	0.2	0.2	1.0	1.2
Egypt	13.7	12.0	25.7	59.3	3.0	62.3	73.0	15.0	88.0
North Sea	0.6	1.9	2.5	6.4	1.0	7.4	7.0	2.9	9.9
Other International	—	0.5	0.5	—	—	—	—	0.5	0.5
Total	57.2	19.7	76.9	167.4	5.0	172.4	224.6	24.7	249.3

Productive Oil and Gas Wells

The number of productive oil and gas wells, operated and non-operated, in which the Company had an interest as of December 31, 2019, is set forth below:

	Oil		Gas		Total	
	Gross	Net	Gross	Net	Gross	Net
United States	12,280	8,035	1,140	820	13,420	8,855
Egypt	1,140	1,080	115	110	1,255	1,190
North Sea	155	115	20	10	175	125
Total	13,575	9,230	1,275	940	14,850	10,170
Domestic	12,280	8,035	1,140	820	13,420	8,855
Foreign	1,295	1,195	135	120	1,430	1,315
Total	13,575	9,230	1,275	940	14,850	10,170

Gross natural gas and crude oil wells include 585 wells with multiple completions.

Production, Pricing, and Lease Operating Cost Data

The following table describes, for each of the last three fiscal years, oil, NGL, and gas production volumes, average lease operating costs per boe (including transportation costs but excluding severance and other taxes), and average sales prices for each of the countries where the Company has operations:

	Production			Average Lease Operating Cost per Boe	Average Sales Price		
Year Ended December 31,	Oil (MMbbls)	NGL (MMbbls)	Gas (Bcf)		Oil (Per bbl)	NGL (Per bbl)	Gas (Per Mcf)
2019							
United States	38.3	25.0	233.5	$ 9.24	$ 54.71	$ 14.95	$ 1.26
Egypt[(1)]	30.9	0.3	104.4	10.77	63.76	33.87	2.83
North Sea[(2)]	18.2	0.6	19.9	16.75	65.10	36.83	4.48
Total	87.4	25.9	357.8	10.62	60.05	15.74	1.90
2018							
United States	38.3	21.0	216.5	$ 10.01	$ 59.36	$ 26.28	$ 2.12
Egypt[(1)]	34.2	0.3	119.3	8.71	70.09	39.17	2.84
North Sea[(2)]	17.1	0.4	16.6	18.92	69.02	45.84	7.33
Total	89.6	21.7	352.4	10.66	65.30	26.87	2.61
2017							
United States	33.4	17.8	143.9	$ 8.92	$ 48.40	$ 16.14	$ 2.56
Canada[(3)]	2.4	1.0	48.0	12.01	45.25	16.39	2.17
Egypt[(1)]	35.5	0.3	141.0	6.85	53.57	36.79	2.80
North Sea[(2)]	17.9	0.4	16.6	17.21	53.81	36.22	5.54
Total	89.2	19.5	349.5	9.45	51.46	16.90	2.74

(1) Includes production volumes attributable to a one-third noncontrolling interest in Egypt.

(2) Sales volumes from the North Sea for 2019, 2018, and 2017 were 21.8 MMboe, 20.3 MMboe, and 21.2 MMboe, respectively. Sales volumes may vary from production volumes as a result of the timing of liftings in the Beryl field.

(3) During the third quarter of 2017, Apache finalized the sale and complete exit of its Canadian operations.

Gross and Net Undeveloped and Developed Acreage

The following table sets out Apache's gross and net acreage position as of December 31, 2019, in each country where the Company has operations:

	Undeveloped Acreage		Developed Acreage	
	Gross Acres	Net Acres	Gross Acres	Net Acres
	(in thousands)			
United States	4,078	2,045	1,126	701
Egypt	3,604	3,604	1,518	1,430
North Sea	233	208	186	139
Other International	2,308	1,111	—	—
Total	10,223	6,968	2,830	2,270

As of December 31, 2019, approximately 19 percent of U.S. net undeveloped acreage was held by production.

As of December 31, 2019, Apache had 257,000 net undeveloped acres scheduled to expire by year-end 2020 if production is not established or Apache takes no other action to extend the terms. Additionally, Apache has 1.4 million and 561,000 net undeveloped acres set to expire in 2021 and 2022, respectively. The Company strives to extend the terms of many of these licenses and concession areas through operational or administrative actions but cannot assure that such extensions can be achieved on an economic basis or otherwise on terms agreeable to both the Company and third parties, including governments.

Exploration concessions in Apache's Egypt region comprise a significant portion of Apache's net undeveloped acreage expiring over the next three years. Apache has 98,000 net undeveloped acres expiring in Egypt during 2020. Approximately 1.3 million and 98,000 net undeveloped acres are set to expire in 2021 and 2022, respectively. There were no reserves recorded on this undeveloped acreage. Apache will continue to pursue acreage extensions and access to new concessions in areas in which it believes exploration opportunities exist.

Additionally, Apache has exploration interests in Suriname consisting of 390,000 net undeveloped acres in Block 53 and 720,000 net undeveloped acres in Block 58 set to expire in 2022 and 2026, respectively, contingent on planned drilling activity. Apache has acquired 3-D seismic surveys over all the acreage. No reserves have been booked on this undeveloped acreage.

Estimated Proved Reserves and Future Net Cash Flows

Proved oil and gas reserves are those quantities of natural gas, crude oil, condensate, and NGLs, which by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations. Estimated proved developed oil and gas reserves can be expected to be recovered through existing wells with existing equipment and operating methods. The Company reports all estimated proved reserves held under production-sharing arrangements utilizing the "economic interest" method, which excludes the host country's share of reserves.

Estimated reserves that can be produced economically through application of improved recovery techniques are included in the "proved" classification when successful testing by a pilot project or the operation of an active, improved recovery program using reliable technology establishes the reasonable certainty for the engineering analysis on which the project or program is based. Economically producible means a resource that generates revenue that exceeds, or is reasonably expected to exceed, the costs of the operation. Reasonable certainty means a high degree of confidence that the quantities will be recovered. Reliable technology is a grouping of one or more technologies (including computational methods) that has been field-tested and has been demonstrated to provide reasonably certain results with consistency and repeatability in the formation being evaluated or in an analogous formation. In estimating its proved reserves, Apache uses several different traditional methods that can be classified in three general categories: (1) performance-based methods; (2) volumetric-based methods; and (3) analogy with similar properties. Apache will, at times, utilize additional technical analysis, such as computer reservoir models, petrophysical techniques, and proprietary 3-D seismic interpretation methods, to provide additional support for more complex reservoirs. Information from this additional analysis is combined with traditional methods outlined above to enhance the certainty of the Company's reserve estimates.

Proved undeveloped reserves include those reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion. Undeveloped reserves may be classified as proved reserves on undrilled acreage directly offsetting development areas that are reasonably certain of production when drilled, or where reliable technology provides reasonable certainty of economic producibility. Undrilled locations may be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless specific circumstances justify a longer time period.

The following table shows proved oil, NGL, and gas reserves as of December 31, 2019, based on average commodity prices in effect on the first day of each month in 2019, held flat for the life of the production, except where future oil and gas sales are covered by physical contract terms. This table shows reserves on a boe basis in which natural gas is converted to an equivalent barrel of oil based on a ratio of 6 Mcf to 1 bbl. This ratio is not reflective of the current price ratio between the two products.

	Oil (MMbbls)	**NGL (MMbbls)**	**Gas (Bcf)**	**Total (MMboe)**
Proved Developed:				
United States	278	159	946	595
Egypt[(1)]	103	1	434	176
North Sea	102	2	106	122
Total Proved Developed	483	162	1,486	893
Proved Undeveloped:				
United States	47	23	115	89
Egypt[(1)]	11	—	25	15
North Sea	10	1	16	14
Total Proved Undeveloped	68	24	156	118
TOTAL PROVED	**551**	**186**	**1,642**	**1,011**

(1) Includes total proved developed and total proved undeveloped reserves of 59 MMboe and 5 MMboe, respectively, attributable to a one-third noncontrolling interest in Egypt.

As of December 31, 2019, Apache had total estimated proved reserves of 551 MMbbls of crude oil, 186 MMbbls of NGLs, and 1.6 Tcf of natural gas. Combined, these total estimated proved reserves are the volume equivalent of 1.0 billion barrels of oil or 6.1 Tcf of natural gas, of which oil represents 55 percent. As of December 31, 2019, the Company's proved developed reserves totaled 893 MMboe and estimated PUD reserves totaled 118 MMboe, or approximately 12 percent of worldwide total proved reserves. Apache has elected not to disclose probable or possible reserves in this filing. The Company does not have any fields that contain 15 percent or more of its total proved reserves for the years ended December 31, 2019, 2018, and 2017.

During 2019, Apache added 176 MMboe of proved reserves through exploration and development activity, partially offset by combined downward revisions of previously estimated reserves of 119 MMboe. Engineering and performance upward revisions accounted for 20 MMboe and downward revisions related to changes in product prices accounted for 139 MMboe. The Company also sold 107 MMboe of proved reserves associated with U.S. divestitures, primarily related to the sale of the Company's Woodford-SCOOP and STACK plays and western Anadarko Basin assets.

The Company's estimates of proved reserves, proved developed reserves, and PUD reserves as of December 31, 2019, 2018, and 2017, changes in estimated proved reserves during the last three years, and estimates of future net cash flows from proved reserves are contained in Note 18—Supplemental Oil and Gas Disclosures in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K. Estimated future net cash flows were calculated using a discount rate of 10 percent per annum, end of period costs, and an unweighted arithmetic average of commodity prices in effect on the first day of each of the previous 12 months, held flat for the life of the production, except where prices are defined by contractual arrangements.

Proved Undeveloped Reserves

The Company's total estimated PUD reserves of 118 MMboe as of December 31, 2019, decreased by 35 MMboe from 153 MMboe of PUD reserves reported at the end of 2018. During the year, Apache converted 85 MMboe of PUD reserves to proved developed reserves through development drilling activity. In the U.S., Apache converted 72 MMboe, with the remaining 13 MMboe in Apache's international areas. Apache sold 18 MMboe of PUD reserves in the U.S. and did not acquire any PUD reserves during the year. Apache added 119 MMboe of new PUD reserves through extensions and discoveries. Apache recognized a 7 MMboe upward engineering revision in proved undeveloped reserves during the year. Downward engineering revisions included 28 MMboe associated with product prices, 29 MMboe associated with revised development plans, and 1 MMboe associated with interest revisions.

During the year, a total of approximately $1.0 billion was spent on projects associated with proved undeveloped reserves. A portion of Apache's costs incurred each year relate to development projects that will convert undeveloped reserves to proved developed reserves in future years. During 2019, Apache spent approximately $749 million on PUD reserve development activity in the U.S. and $264 million in the international areas. As of December 31, 2019, Apache had no material amounts of proved undeveloped reserves scheduled to be developed beyond five years from initial disclosure.

Preparation of Oil and Gas Reserve Information

Apache's reported reserves are reasonably certain estimates which, by their very nature, are subject to revision. These estimates are reviewed throughout the year and revised either upward or downward, as warranted.

Apache's proved reserves are estimated at the property level and compiled for reporting purposes by a centralized group of experienced reservoir engineers that is independent of the operating groups. These engineers interact with engineering and geoscience personnel in each of Apache's operating areas and with accounting and marketing employees to obtain the necessary data for projecting future production, costs, net revenues, and ultimate recoverable reserves. All relevant data is compiled in a computer database application, to which only authorized personnel are given security access rights consistent with their assigned job function. Reserves are reviewed internally with senior management and presented to Apache's Board of Directors in summary form on a quarterly basis. Annually, each property is reviewed in detail by our corporate and operating region engineers to ensure forecasts of operating expenses, netback prices, production trends, and development timing are reasonable.

Apache's Executive Vice President of Development, Planning, Reserves and Fundamentals is the person primarily responsible for overseeing the preparation of our internal reserve estimates and for coordinating any reserves audits conducted by a third-party engineering firm. He has Bachelor of Science and Master of Science degrees in Petroleum Engineering and over 30 years of experience in the energy industry and energy sector of the banking industry. The Executive Vice President of Development, Planning, Reserves and Fundamentals reports directly to our Chief Executive Officer.

The estimate of reserves disclosed in this Annual Report on Form 10-K is prepared by the Company's internal staff, and the Company is responsible for the adequacy and accuracy of those estimates. The Company engages Ryder Scott Company, L.P. Petroleum Consultants (Ryder Scott) to conduct a reserves audit, which includes a review of our processes and the reasonableness of our estimates of proved hydrocarbon liquid and gas reserves. The Company selects the properties for review by Ryder Scott based primarily on relative reserve value. The Company also considers other factors such as geographic location, new wells drilled during the year and reserves volume. During 2019, the properties selected for each country ranged from 83 to 95 percent of the total future net cash flows discounted at 10 percent. These properties also accounted for over 91 percent of the reserves value of Apache's international proved reserves and 95 percent of the reserves value of Apache's new wells drilled worldwide. In addition, all fields containing five percent or more of the Company's total proved reserves volume were included in Ryder Scott's review. The review covered 85 percent of total proved reserves by volume.

Ryder Scott's review for the years 2019, 2018, and 2017 covered 87, 86, and 92 percent, respectively, of the value and 85, 83, and 84 percent, respectively, of the volume of the Company's worldwide estimated proved reserves. Ryder Scott's 2019 review covered 85, 86, and 80 percent of the estimated proved reserve volume in the U.S., Egypt, and U.K., respectively.

Ryder Scott's review of 2018 covered 82 percent of U.S., 85 percent of Egypt, and 81 percent of the U.K.'s total proved reserves.

Ryder Scott's review of 2017 covered 84 percent of U.S., 85 percent of Egypt, and 81 percent of the U.K.'s total proved reserves.

The Company has filed Ryder Scott's independent report as an exhibit to this Form 10-K.

According to Ryder Scott's opinion, based on their review, including the data, technical processes, and interpretations presented by Apache, the overall procedures and methodologies utilized by Apache in determining the proved reserves comply with the current SEC regulations, and the overall proved reserves for the reviewed properties as estimated by Apache are, in aggregate, reasonable within the established audit tolerance guidelines as set forth in the Society of Petroleum Engineers auditing standards.

ALTUS MIDSTREAM ASSETS

In November 2018, Apache completed a transaction with Altus Midstream Company and its then wholly-owned subsidiary Altus Midstream LP (collectively, Altus) to create a pure-play, Permian Basin to Gulf Coast midstream C-corporation anchored by gathering, processing, and transmission assets at Alpine High. Pursuant to the agreement, Apache contributed certain Alpine High midstream assets and options to acquire equity interests in five separate third-party pipeline projects (the Pipeline Options) to Altus Midstream LP and/or its subsidiaries. In exchange for the assets, Apache received economic voting and non-economic voting shares in Altus Midstream Company and limited partner interests in Altus Midstream LP, representing an approximate 79 percent ownership interest in the combined entities.

Apache fully consolidates the assets and liabilities of Altus in its consolidated financial statements, with a corresponding noncontrolling interest reflected separately.

Gathering, Processing, and Transmission Assets

Altus owns, develops, and operates gas gathering, processing, and transmission assets in the Permian Basin of West Texas. Altus generates revenue by providing fee-based natural gas gathering, compression, processing, and transmission services for Apache’s production from its Alpine High resource play. As of December 31, 2019, Altus’ assets included approximately 178 miles of in-service natural gas gathering pipelines, approximately 55 miles of residue-gas pipelines with four market connections, and approximately 38 miles of NGL pipelines. Three cryogenic processing trains, each with nameplate capacity of 200 MMcf/d, were placed into service during 2019. Other assets include an NGL truck loading terminal with six Lease Automatic Custody Transfer units and eight NGL bullet tanks with 90,000 gallon capacity per tank. Altus’ existing gathering, processing, and transmission infrastructure is expected to provide capacity levels capable of fulfilling its midstream contracts to service Apache’s production from Alpine High and additional third-party customers as the market activity in the area continues to develop.

Apache, as part of its fourth quarter 2019 capital planning review, notified Altus of its intention to materially reduce funding to Alpine High. This notification prompted Altus management to assess its long-lived infrastructure assets for impairment given the expected reduction to future throughput volumes. Altus subsequently recorded impairments on its gathering, processing, and transmission assets. For further discussion of these impairments, please see Note 1 “Summary of Significant Accounting Policies” in the Notes to Consolidated Financial Statements included in within Part IV, Item 15 of this Form 10-K.

Pipeline Options and Equity Interests

Gulf Coast Express Pipeline In December 2018, Altus Midstream LP closed on the exercise of its option to acquire a 15 percent equity interest in the Gulf Coast Express Pipeline (GCX) from Kinder Morgan Texas Pipeline LLC (Kinder Morgan). Altus Midstream LP acquired an additional 1 percent equity interest in May 2019, for a total 16 percent equity interest in GCX. GCX is a long-haul natural gas pipeline with capacity of approximately 2.0 Bcf/d and transports natural gas from the Waha area in northern Pecos County, Texas to the Agua Dulce Hub near the Texas Gulf Coast. GCX is operated by Kinder Morgan and was placed into service in September 2019.

EPIC Crude Oil Pipeline In March 2019, Altus Midstream LP’s subsidiary closed on the exercise of its option with EPIC Pipeline LP, thereby acquiring a 15 percent equity interest in the EPIC crude oil pipeline (EPIC). The long-haul crude oil pipeline extends from the Orla area in northern Reeves County, Texas to the Port of Corpus Christi, Texas, and has Permian Basin initial throughput capacity of approximately 600 Mb/d. The project includes terminals in Orla, Pecos, Crane, Wink, Midland, Hobson, and Gardendale, Texas with Port of Corpus Christi connectivity and export access. It services Delaware Basin, Midland Basin, and Eagle Ford Shale production. EPIC is operated by EPIC Consolidated Operations, LLC and was commissioned in February 2020.

Permian Highway Pipeline In May 2019, Altus Midstream LP’s subsidiary closed on the exercise of its option with Kinder Morgan, thereby acquiring an approximate 26.7 percent equity interest in the Permian Highway Pipeline (PHP). Upon completion, the long-haul natural gas pipeline is expected to have capacity of approximately 2.1 Bcf/d and will transport natural gas from the Waha area in northern Pecos County, Texas to the Katy, Texas area with connections to U.S. Gulf Coast and Mexico markets. PHP will be operated by Kinder Morgan and is expected to be in service in early 2021.

Shin Oak NGL Pipeline In July 2019, Altus Midstream LP’s subsidiary closed on the exercise of its option with Enterprise Products Operating LLC (Enterprise Products), thereby acquiring a 33 percent equity interest in Breviloba LLC, which owns Shin Oak NGL Pipeline (Shin Oak). The long-haul NGL pipeline has capacity of up to 550 Mb/d and transports NGL production from the Orla area in northern Reeves County, Texas through the Waha area in northern Pecos County, Texas, and on to Mont Belvieu, Texas. Shin Oak is operated by Enterprise Products and was placed into service during 2019.

Pipeline Option Outstanding

Salt Creek NGL Pipeline Altus Midstream LP's subsidiary's option to acquire a 50 percent equity interest in the Salt Creek NGL Pipeline, an intra-basin NGL pipeline, was originally set to expire on January 31, 2020; however, the parties executed an extension for the option until March 2, 2020.

MAJOR CUSTOMERS

For the years ended 2019, 2018, and 2017, the customers, including their subsidiaries, that represented more than 10 percent of the Company's worldwide oil and gas production revenues were as follows:

	For the Year Ended December 31,		
	2019	**2018**	**2017**
BP plc(1)	10%	17%	12%
China Petroleum & Chemical Corporation (Sinopec)(2)	11%	15%	16%
Egyptian General Petroleum Corporation(3)	9%	10%	11%

(1) Sales to BP plc were reported as revenue in the Company's U.S., Egypt, and North Sea upstream segments in the years ended 2019, 2018, and 2017.
(2) Sales to Sinopec were reported as revenue in the Company's Egypt upstream segment in the year ended 2019 and in the Company's Egypt and North Sea upstream segments in the years ended 2018 and 2017.
(3) Sales to EGPC were reported as revenue in the Company's Egypt upstream segment in the years ended 2019, 2018, and 2017.

EMPLOYEES

On December 31, 2019, the Company had 3,163 employees.

OFFICES

Our principal executive offices are located at One Post Oak Central, 2000 Post Oak Boulevard, Suite 100, Houston, Texas 77056-4400. At year-end 2019, the Company maintained regional exploration and/or production offices in Midland, Texas; San Antonio, Texas; Houston, Texas; Cairo, Egypt; and Aberdeen, Scotland. Apache leases its primary office space. The current lease on our principal executive offices runs through December 31, 2024. The Company has an option to extend the lease through 2029. For information regarding the Company's obligations under its office leases, please see Part II, Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Capital Resources and Liquidity—Contractual Obligations and Note 11—Commitments and Contingencies in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K.

TITLE TO INTERESTS

As is customary in our industry, a preliminary review of title records, which may include opinions or reports of appropriate professionals or counsel, is made at the time we acquire properties. We believe that our title to all of the various interests set forth above is satisfactory and consistent with the standards generally accepted in the oil and gas industry, subject only to immaterial exceptions that do not detract substantially from the value of the interests or materially interfere with their use in our operations. The interests owned by us may be subject to one or more royalty, overriding royalty, or other outstanding interests (including disputes related to such interests) customary in the industry. The interests may additionally be subject to obligations or duties under applicable laws, ordinances, rules, regulations, and orders of arbitral or governmental authorities. In addition, the interests may be subject to burdens such as production payments, net profits interests, liens incident to operating agreements and current taxes, development obligations under oil and gas leases, and other encumbrances, easements, and restrictions, none of which detract substantially from the value of the interests or materially interfere with their use in our operations.

ADDITIONAL INFORMATION ABOUT APACHE

Response Plans and Available Resources

Apache and its wholly owned subsidiary, Apache Deepwater LLC (ADW), developed Oil Spill Response Plans (the Plans) for their respective Gulf of Mexico operations and offshore operations in the North Sea and Suriname, which ensure rapid and effective responses to spill events that may occur on such entities' operated properties. Annually, drills are conducted to measure and maintain the effectiveness of the Plans.

Apache is a member of Oil Spill Response Limited (OSRL), a large international oil spill response cooperative, which entitles any Apache entity worldwide to access OSRL's services. Apache also has a contract for response resources and services with National Response Corporation (NRC). NRC is the world's largest commercial Oil Spill Response Organization and is the global leader in providing end-to-end environmental, industrial, and emergency response solutions with operating bases in 13 countries.

In the event of a spill in the Gulf of Mexico, Clean Gulf Associates (CGA) is the primary oil spill response association available to Apache and ADW. Both Apache and ADW are members of CGA, a not-for-profit association of producing and pipeline companies operating in the Gulf of Mexico. CGA was created to provide a means of effectively staging response equipment and providing immediate spill response for its member companies' operations in the Gulf of Mexico.

Additionally, Apache is an active member of Wild Well Control's WellCONTAINED Subsea Containment System for Suriname operations. This membership includes contingency planning, and response, to an uncontrolled subsea well event. Apache utilizes a detailed Source Control Emergency Response Plan (SCERP) for offshore Suriname planning. The SCERP has been designed to ensure that the goals of Apache's source control emergency preparedness efforts will be met in the unlikely event of an actual response to an uncontrolled well event. This includes the use of subsea dispersant systems and field deployment of one of Wild Well Control's containment system capping stacks.

Competitive Conditions

The oil and gas business is highly competitive in the exploration for and acquisitions of reserves, the acquisition of oil and gas leases, equipment and personnel required to find and produce reserves, and the gathering and marketing of oil, gas, and natural gas liquids. Our competitors include national oil companies, major integrated oil and gas companies, other independent oil and gas companies, and participants in other industries supplying energy and fuel to industrial, commercial, and individual consumers.

Certain of our competitors may possess financial or other resources substantially larger than we possess or have established strategic long-term positions and maintain strong governmental relationships in countries in which we may seek new entry. As a consequence, we may be at a competitive disadvantage in bidding for leases or drilling rights.

However, we believe our diversified portfolio of core assets, which comprises large acreage positions and well-established production bases across three geographic areas, our balanced production mix between oil and gas, our management and incentive systems, and our experienced personnel give us a strong competitive position relative to many of our competitors who do not possess similar geographic and production diversity. Our global position provides a large inventory of geologic and geographic opportunities in the geographic areas in which we have producing operations to which we can reallocate capital investments in response to changes in commodity prices, local business environments, and markets. It also reduces the risk that we will be materially impacted by an event in a specific area or country.

Environmental Compliance

As an owner or lessee and operator of oil and gas properties and facilities, we are subject to numerous federal, state, local, and foreign country laws and regulations relating to discharge of materials into, and protection of, the environment. These laws and regulations may, among other things, impose liability on the lessee under an oil and gas lease for the cost of pollution clean-up resulting from operations, subject the lessee to liability for pollution damages and require suspension or cessation of operations in affected areas. Although environmental requirements have a substantial impact upon the energy industry as a whole, we do not believe that these requirements affect us differently, to any material degree, than other companies in our industry.

We have made and will continue to make expenditures in our efforts to comply with these requirements, which we believe are necessary business costs in the oil and gas industry. We have established policies for continuing compliance with environmental laws and regulations, including regulations applicable to our operations in all countries in which we do business. We have established operating procedures and training programs designed to limit the environmental impact of our field facilities and identify and comply with changes in existing laws and regulations. The costs incurred under these policies and procedures are inextricably connected to normal operating expenses such that we are unable to separate expenses related to environmental matters; however, we do not believe expenses related to training and compliance with regulations and laws that have been adopted or enacted to regulate the discharge of materials into the environment will have a material impact on our capital expenditures, earnings, or competitive position.

ITEM 1A. *RISK FACTORS*

Our business activities and the value of our securities are subject to significant hazards and risks, including those described below. If any of such events should occur, our business, financial condition, liquidity, and/or results of operations could be materially harmed, and holders and purchasers of our securities could lose part or all of their investments. Additional risks relating to our securities may be included in the prospectuses for securities we issue in the future.

Crude oil, natural gas, and NGL price volatility could adversely affect our operating results and the price of our common stock.

Our revenues, operating results, and future rate of growth depend highly upon the prices we receive for our crude oil, natural gas, and NGL production. Historically, the markets for these commodities have been volatile and are likely to continue to be volatile in the future. For example, the NYMEX daily settlement price for the prompt month oil contract in 2019 ranged from a high of $66.30 per barrel to a low of $45.89 per barrel. The NYMEX daily settlement price for the prompt month natural gas contract in 2019 ranged from a high of $3.59 per MMBtu to a low of $2.07 per MMBtu. The market prices for crude oil, natural gas, and NGLs depend on factors beyond our control. These factors include demand, which fluctuates with changes in market and economic conditions, and other factors, including:

- worldwide and domestic supplies of crude oil, natural gas, and NGLs;
- actions taken by foreign oil and gas producing nations, including the Organization of the Petroleum Exporting Countries (OPEC);
- political conditions and events (including instability, changes in governments, or armed conflict) in oil and gas producing regions;
- the level of global crude oil and natural gas inventories;
- the price and level of imported foreign crude oil, natural gas, and NGLs;
- the price and availability of alternative fuels, including coal and biofuels;
- the availability of pipeline capacity and infrastructure;
- the availability of crude oil transportation and refining capacity;
- weather conditions;
- domestic and foreign governmental regulations and taxes; and
- the overall economic environment.

Our results of operations, as well as the carrying value of our oil and gas properties, are substantially dependent upon the prices of oil, natural gas, and NGLs, which have declined significantly since June 2014. Despite slight increases in oil and natural gas prices in 2019, prices have remained significantly lower than levels seen in recent years, which has adversely affected our revenues, operating income, cash flow, and proved reserves. Continued low prices could have a material adverse impact on our operations and limit our ability to fund capital expenditures. Without the ability to fund capital expenditures, we would be unable to replace reserves and production. Sustained low prices of crude oil, natural gas, and NGLs may further adversely impact our business as follows:

- limiting our financial condition, liquidity, and/or ability to fund planned capital expenditures and operations;
- reducing the amount of crude oil, natural gas, and NGLs that we can produce economically;
- causing us to delay or postpone some of our capital projects;
- reducing our revenues, operating income, and cash flows;
- limiting our access to sources of capital, such as equity and long-term debt;
- reducing the carrying value of our oil and gas properties, resulting in additional non-cash impairments;
- reducing the carrying value of our gathering, processing, and transmission facilities, resulting in additional impairments; or
- reducing the carrying value of goodwill.

Our ability to sell crude oil, natural gas, or NGLs and/or receive market prices for these commodities and/or meet volume commitments under transportation services agreements may be adversely affected by pipeline and gathering system capacity constraints, the inability to procure and resell volumes economically, and various transportation interruptions.

A portion of our crude oil, natural gas, and NGL production in any region may be interrupted, limited, or shut in from time to time for numerous reasons, including as a result of weather conditions, accidents, loss of pipeline or gathering system access, field labor issues or strikes, or capital constraints that limit the ability of third parties to construct gathering systems, processing facilities, or interstate pipelines to transport our production, or we might voluntarily curtail production in response to market conditions. If a substantial amount of our production is interrupted at the same time, it could temporarily adversely affect our cash flows. Additionally, if we are unable to procure and resell third-party volumes at or above a net price that covers the cost of transportation, our cash flows could be adversely affected.

Future economic conditions in the U.S. and certain international markets may materially adversely impact our operating results.

Current global market conditions and uncertainty, including the economic instability in Europe and certain emerging markets, are likely to have significant long-term effects on our operating results. Global economic growth drives demand for energy from all sources, including fossil fuels. A lower future economic growth rate could result in decreased demand growth for our oil and gas production as well as lower commodity prices, which would reduce our cash flows from operations and our profitability.

Weather and climate may have a significant adverse impact on our revenues and production.

Demand for oil and gas are, to a significant degree, dependent on weather and climate, which impact the price we receive for the commodities we produce. In addition, our exploration and development activities and equipment can be adversely affected by severe weather, such as freezing temperatures, hurricanes in the Gulf of Mexico, or storms in the North Sea, which may cause a loss of production from temporary cessation of activity or lost or damaged equipment. Our planning for normal climatic variation, insurance programs, and emergency recovery plans may inadequately mitigate the effects of such weather conditions, and not all such effects can be predicted, eliminated, or insured against.

Our operations involve a high degree of operational risk, particularly risk of personal injury, damage or loss of equipment, and environmental accidents.

Our operations are subject to hazards and risks inherent in the drilling, production, and transportation of crude oil, natural gas, and NGLs, including:

- well blowouts, explosions, and cratering;
- pipeline or other facility ruptures and spills;
- fires;
- formations with abnormal pressures;
- equipment malfunctions;
- hurricanes, storms, and/or cyclones, which could affect our operations in areas such as on and offshore the Gulf Coast and North Sea, and other natural and anthropogenic disasters and weather conditions; and
- surface spillage and surface or ground water contamination from petroleum constituents, saltwater, or hydraulic fracturing chemical additives.

Failure or loss of equipment, as the result of equipment malfunctions, cyberattacks, or natural disasters such as hurricanes, could result in property damages, personal injury, environmental pollution, and other damages for which we could be liable. Litigation arising from a catastrophic occurrence, such as a well blowout, explosion, fire at a location where our equipment and services are used, or ground water contamination from hydraulic fracturing chemical additives may result in substantial claims for damages. Ineffective containment of a drilling well blowout or pipeline rupture or surface spillage and surface or ground water contamination from petroleum constituents or hydraulic fracturing chemical additives could result in extensive environmental pollution and substantial remediation expenses. If a significant amount of our production is interrupted, our containment efforts prove to be ineffective, or litigation arises as the result of a catastrophic occurrence, our cash flows and, in turn, our results of operations could be materially and adversely affected.

A terrorist or cyberattack targeting systems and infrastructure used by us or others in the oil and gas industry may adversely impact our operations.

Our business has become increasingly dependent on digital technologies to conduct certain exploration, development, and production activities. We depend on digital technology to estimate quantities of oil and gas reserves, process and record financial and operating data, analyze seismic and drilling information, communicate with our employees and third-party partners, and conduct many of our activities. Unauthorized access to our digital technology could lead to operational disruption, data corruption, communication interruption, loss of intellectual property, loss of confidential and fiduciary data, and loss or corruption of reserves or other proprietary information. Strategic targets, such as energy-related assets, may be at greater risk of future terrorist attacks, environmental activist group activities, or cyberattacks than other targets in the United States. Also, external digital technologies control nearly all of the oil and gas distribution and refining systems in the United States and abroad, which are necessary to transport and market our production. A cyberattack directed at oil and gas distribution systems could damage critical distribution and storage assets or the environment, delay or prevent delivery of production to markets, and make it difficult or impossible to accurately account for production and settle transactions. Any such terrorist attack, environmental activist group activity, or cyberattack that affects the Company or our customers, suppliers, or others with whom we do business could have a material adverse effect on our business, cause it to incur a material financial loss, subject it to possible legal claims and liability, and/or damage our reputation.

While certain of our insurance policies may allow for coverage of associated damages resulting from such events, if we were to incur a significant liability for which we were not fully insured, it could have a material adverse effect on our financial position, results of operations and cash flows. In addition, the proceeds of any such insurance may not be paid in a timely manner and may be insufficient if such an event were to occur.

While we have experienced cyberattacks in the past, we have not suffered any material losses as a result of such attacks; however, there is no assurance that we will not suffer such losses in the future. Further, as cyberattacks continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate any vulnerabilities to cyberattacks. In addition, cyberattacks against us or others in our industry could result in additional regulations, which could lead to increased regulatory compliance costs, insurance coverage cost, or capital expenditures. The Company cannot predict the potential impact to our business or the energy industry resulting from additional regulations.

Our commodity price risk management and trading activities may prevent us from benefiting fully from price increases and may expose us to other risks.

To the extent that we engage in price risk management activities to protect ourselves from commodity price declines, we may be prevented from realizing the benefits of price increases above the levels of the derivative instruments used to manage price risk. In addition, our hedging arrangements may expose us to the risk of financial loss in certain circumstances, including instances in which:

- our production falls short of the hedged volumes;
- there is a widening of price-basis differentials between delivery points for our production and the delivery point assumed in the hedge arrangement;
- the counterparties to our hedging or other price risk management contracts fail to perform under those arrangements; or
- an unexpected event materially impacts commodity prices.

The credit risk of financial institutions could adversely affect us.

We have exposure to different counterparties, and we have entered into transactions with counterparties in the financial services industry, including commercial banks, investment banks, insurance companies, other investment funds, and other institutions. These transactions expose us to credit risk in the event of default of our counterparty. Deterioration in the credit or financial markets may impact the credit ratings of our current and potential counterparties and affect their ability to fulfill their existing obligations to us and their willingness to enter into future transactions with us. We may also have exposure to financial institutions in the form of derivative transactions in connection with any hedges. We also have exposure to insurance companies in the form of claims under our policies. In addition, if any lender under our credit facilities is unable to fund its commitment, our liquidity will be reduced by an amount up to the aggregate amount of such lender’s commitment under our credit facilities.

We are exposed to a risk of financial loss if a counterparty fails to perform under a derivative contract. This risk of counterparty non-performance is of particular concern given the recent volatility of the financial markets and significant decline in commodity prices, which could lead to sudden changes in a counterparty's liquidity and impair its ability to perform under the terms of the derivative contract. We are unable to predict sudden changes in a counterparty's creditworthiness or ability to perform. Even if we do accurately predict sudden changes, our ability to negate the risk may be limited depending upon market conditions. Furthermore, the bankruptcy of one or more of our hedge providers or some other similar proceeding or liquidity constraint might make it unlikely that we would be able to collect all or a significant portion of amounts owed to us by the distressed entity or entities. During periods of falling commodity prices, our hedge receivable positions increase, which increases our exposure. If the creditworthiness of our counterparties deteriorates and results in their nonperformance, we could incur a significant loss.

The distressed financial conditions of our purchasers and partners could have an adverse impact on us in the event they are unable to pay us for the products or services we provide or to reimburse us for their share of costs.

Concerns about global economic conditions and the volatility of oil, natural gas, and NGL prices have had a significant adverse impact on the oil and gas industry. We are exposed to risk of financial loss from trade, joint venture, joint interest billing, and other receivables. We sell our crude oil, natural gas, and NGLs to a variety of purchasers. As operator, we pay expenses and bill our non-operating partners for their respective shares of costs. As a result of current economic conditions and the severe decline in commodity prices, some of our customers and non-operating partners may experience severe financial problems that may have a significant impact on their creditworthiness. We cannot provide assurance that one or more of our financially distressed customers or non-operating partners will not default on their obligations to us or that such a default or defaults will not have a material adverse effect on our business, financial position, future results of operations, or future cash flows. Furthermore, the bankruptcy of one or more of our customers or non-operating partners or some other similar proceeding or liquidity constraint might make it unlikely that we would be able to collect all or a significant portion of amounts owed by the distressed entity or entities. Nonperformance by a trade creditor or non-operating partner could result in significant financial losses.

A downgrade in our credit rating could negatively impact our cost of and ability to access capital.

We receive debt ratings from the major credit rating agencies in the United States. Factors that may impact our credit ratings include debt levels, planned asset purchases or sales, and near-term and long-term production growth opportunities. Liquidity, asset quality, cost structure, product mix, commodity pricing levels, and other factors are also considered by the rating agencies. A ratings downgrade could adversely impact our ability to access debt markets in the future and increase the cost of future debt; past ratings downgrades have required, and any future downgrades may require, us to post letters of credit or other forms of collateral for certain obligations. Throughout 2019, our credit rating remained unchanged by Moody's at Baa3/Stable and Standard and Poor's at BBB/Stable. Any future downgrades could result in additional postings of collateral ranging from approximately $864 million to $1.4 billion, depending upon timing and availability of tax relief.

Market conditions may restrict our ability to obtain funds for future development and working capital needs, which may limit our financial flexibility.

The financial markets are subject to fluctuation and are vulnerable to unpredictable shocks. We have a significant development project inventory and an extensive exploration portfolio, which will require substantial future investment. We and/or our partners may need to seek financing in order to fund these or other future activities. Our future access to capital, as well as that of our partners and contractors, could be limited if the debt or equity markets are constrained. This could significantly delay development of our property interests.

The discontinuation of LIBOR, and the adoption of an alternative reference rate, may have a material adverse impact on our floating rate indebtedness and financing costs.

Pursuant to the terms of our revolving credit facility (1) we may elect to use London Interbank Offering Rate (LIBOR) as a benchmark for establishing the interest rate on floating interest rate borrowings and (2) the commission payable to the lenders on the face amount of each outstanding letter of credit uses LIBOR as a benchmark. In July 2017, the Financial Conduct Authority (the regulatory authority over LIBOR) stated they will plan for a phase out of regulatory oversight of LIBOR after 2021 to allow for an orderly transition to an alternate reference rate. In the United States, the Alternative Reference Rates Committee (the working group formed to recommend an alternative rate to LIBOR) has identified the Secured Overnight Financing Rate (SOFR) as its preferred alternative rate for LIBOR. There can be no guarantee that SOFR will become a widely accepted benchmark in place of LIBOR. Although the full impact of the transition away from LIBOR, including the discontinuance of LIBOR publication and the adoption of SOFR as the replacement rate for LIBOR, remains unclear, these changes may have an adverse impact on our floating rate indebtedness and financing costs under our revolving credit facility.

Our ability to declare and pay dividends is subject to limitations.

The payment of future dividends on our capital stock is subject to the discretion of our board of directors, which considers, among other factors, our operating results, overall financial condition, credit-risk considerations, and capital requirements, as well as general business and market conditions. Our board of directors is not required to declare dividends on our common stock and may decide not to declare dividends.

Any indentures and other financing agreements that we enter into in the future may limit our ability to pay cash dividends on our capital stock, including common stock. In addition, under Delaware law, dividends on capital stock may only be paid from "surplus," which is the amount by which the fair value of our total assets exceeds the sum of our total liabilities, including contingent liabilities, and the amount of our capital; if there is no surplus, cash dividends on capital stock may only be paid from our net profits for the then-current and/or the preceding fiscal year. Further, even if we are permitted under our contractual obligations and Delaware law to pay cash dividends on common stock, we may not have sufficient cash to pay dividends in cash on our common stock.

Discoveries or acquisitions of additional reserves are needed to avoid a material decline in reserves and production.

The production rate from oil and gas properties generally declines as reserves are depleted, while related per-unit production costs generally increase as a result of decreasing reservoir pressures and other factors. Therefore, unless we add reserves through exploration and development activities, identify additional behind-pipe zones, secondary recovery reserves, or tertiary recovery reserves through engineering studies, or acquire additional properties containing proved reserves, our estimated proved reserves will decline materially as reserves are produced. Future oil and gas production is, therefore, highly dependent upon our level of success in acquiring or finding additional reserves on an economic basis. Furthermore, if oil or gas prices increase, our cost for additional reserves could also increase.

We may not realize an adequate return on wells that we drill.

Drilling for oil and gas involves numerous risks, including the risk that we will not encounter commercially productive oil or gas reservoirs. The wells we drill or participate in may not be productive, and we may not recover all or any portion of our investment in those wells. The seismic data and other technologies we use do not allow us to know conclusively prior to drilling a well that crude or natural gas is present or may be produced economically. The costs of drilling, completing, and operating wells are often uncertain, and drilling operations may be curtailed, delayed, or canceled as a result of a variety of factors including, but not limited to:

- unexpected drilling conditions;
- pressure or irregularities in formations;
- equipment failures or accidents;
- fires, explosions, blowouts, and surface cratering;
- marine risks, such as capsizing, collisions, and hurricanes;
- other adverse weather conditions; and
- increases in the cost of or shortages or delays in the availability of drilling rigs and equipment.

Future drilling activities may not be successful, and, if unsuccessful, this failure could have an adverse effect on our future results of operations and financial condition. While all drilling, whether developmental or exploratory, involves these risks, exploratory drilling involves greater risks of dry holes or failure to find commercial quantities of hydrocarbons.

Material differences between the estimated and actual timing of critical events or costs may affect the completion and commencement of production from development projects.

We are involved in several large development projects, and the completion of these projects may be delayed beyond our anticipated completion dates. Our projects may be delayed by project approvals from joint venture partners, timely issuances of permits and licenses by governmental agencies, weather conditions, manufacturing and delivery schedules of critical equipment, and other unforeseen events. Delays and differences between estimated and actual timing of critical events may adversely affect our large development projects and our ability to participate in large-scale development projects in the future. In addition, our estimates of future development costs are based on current expectation of prices and other costs of equipment and personnel we will need to implement such projects. Our actual future development costs may be significantly higher than we currently estimate.

If costs become too high, our development projects may become uneconomic to us, and we may be forced to abandon such development projects.

We may fail to fully identify potential problems related to acquired reserves or to properly estimate those reserves.

Although we perform a review of properties that we acquire that we believe is consistent with industry practices, such reviews are inherently incomplete. It generally is not feasible to review in-depth every individual property involved in each acquisition. Ordinarily, we will focus our review efforts on the higher-value properties and will sample the remainder. However, even a detailed review of records and properties may not necessarily reveal existing or potential problems, nor will it permit us as a buyer to become sufficiently familiar with the properties to assess fully and accurately their deficiencies and potential. Inspections may not always be performed on every well, and environmental problems, such as groundwater contamination, are not necessarily observable even when an inspection is undertaken. Even when problems are identified, we often assume certain environmental and other risks and liabilities in connection with acquired properties. There are numerous uncertainties inherent in estimating quantities of proved oil and gas reserves and future production rates and costs with respect to acquired properties, and actual results may vary substantially from those assumed in the estimates. In addition, there can be no assurance that acquisitions will not have an adverse effect upon our operating results, particularly during the periods in which the operations of acquired businesses are being integrated into our ongoing operations.

Our liabilities could be adversely affected in the event one or more of our transaction counterparties become the subject of a bankruptcy case.

From time to time we have divested noncore or nonstrategic domestic and international assets. The agreements relating to these transactions contain provisions pursuant to which liabilities related to past and future operations have been allocated between the parties by means of liability assumptions, indemnities, escrows, trusts, and similar arrangements. One of the most significant of these liabilities involves the decommissioning of wells and facilities previously owned by us. One or more of the counterparties in these transactions could fail to perform its obligations under these agreements as a result of financial distress. In the event that any such counterparty were to become the subject of a case or proceeding under Title 11 of the United States Code or any other relevant insolvency law or similar law (which we collectively refer to as Insolvency Laws), the counterparty may not perform its obligations under the agreements related to these transactions. In that case, our remedy in the proceeding would be a claim for damages for the breach of the contractual arrangements, which may be either a secured claim or an unsecured claim depending on whether or not we have collateral from the counterparty for the performance of the obligations. Resolution of our claim for damages in such a proceeding may be delayed, and we may be forced to use available cash to cover the costs of the obligations assumed by the counterparties under such agreements should they arise.

Despite the provisions in our agreements requiring purchasers of our state or federal leasehold interests to assume certain liabilities and obligations related to such interests, if a purchaser of such interests becomes the subject of a case or proceeding under relevant Insolvency Laws or becomes unable financially to perform such liabilities or obligations, we would expect the relevant governmental authorities to require us to perform and hold us responsible for such liabilities and obligations. In such event, we may be forced to use available cash to cover the costs of such liabilities and obligations should they arise.

If a court or a governmental authority were to make any of the foregoing determinations or take any of the foregoing actions, or any similar determination or action, it could adversely impact our cash flows, operations, or financial condition.

Crude oil, natural gas, and NGL reserves are estimates, and actual recoveries may vary significantly.

There are numerous uncertainties inherent in estimating crude oil, natural gas, and NGL reserves and their value. Reservoir engineering is a subjective process of estimating underground accumulations of crude oil, natural gas, and NGLs that cannot be measured in an exact manner. Because of the high degree of judgment involved, the accuracy of any reserve estimate is inherently imprecise and a function of the quality of available data and the engineering and geological interpretation. Our reserves estimates are based on 12-month average prices, except where contractual arrangements exist; therefore, reserves quantities will change when actual prices increase or decrease. In addition, results of drilling, testing, and production may substantially change the reserve estimates for a given reservoir over time. The estimates of our proved reserves and estimated future net revenues also depend on a number of factors and assumptions that may vary considerably from actual results, including:

- historical production from the area compared with production from other areas;
- the effects of regulations by governmental agencies, including changes to severance and excise taxes;
- future operating costs and capital expenditures; and
- workover and remediation costs.

For these reasons, estimates of the economically recoverable quantities of crude oil, natural gas, and NGLs attributable to any particular group of properties, classifications of those reserves, and estimates of the future net cash flows expected from them prepared by different engineers or by the same engineers but at different times may vary substantially. Accordingly, reserves estimates may be subject to upward or downward adjustment, and actual production, revenue, and expenditures with respect to our reserves likely will vary, possibly materially, from estimates.

Additionally, because some of our reserves estimates are calculated using volumetric analysis, those estimates are less reliable than the estimates based on a lengthy production history. Volumetric analysis involves estimating the volume of a reservoir based on the net feet of pay of the structure and an estimation of the area covered by the structure. In addition, realization or recognition of proved undeveloped reserves will depend on our development schedule and plans. A change in future development plans for proved undeveloped reserves could cause the discontinuation of the classification of these reserves as proved.

Certain of our undeveloped leasehold acreage is subject to leases that will expire over the next several years unless production is established on units containing the acreage.

A sizeable portion of our acreage is currently undeveloped. Unless production in paying quantities is established on units containing certain of these leases during their terms, the leases will expire. If our leases expire, we will lose our right to develop the related properties. Our drilling plans for these areas are subject to change based upon various factors, including drilling results, commodity prices, the availability and cost of capital, drilling and production costs, availability of drilling services and equipment, gathering system and pipeline transportation constraints, and regulatory approvals.

We may incur significant costs related to environmental matters.

As an owner or lessee and operator of oil and gas properties, we are subject to various federal, state, local, and foreign country laws and regulations relating to the discharge of materials into and protection of the environment. These laws and regulations may, among other things, impose liability on the lessee under an oil and gas lease for the cost of pollution cleanup and other remediation activities resulting from operations, subject the lessee to liability for pollution and other damages, limit or constrain operations in affected areas, and require suspension or cessation of operations in affected areas. Our efforts to limit our exposure to such liability and cost may prove inadequate and result in significant adverse effects to our results of operations. In addition, it is possible that the increasingly strict requirements imposed by environmental laws and enforcement policies could require us to make significant capital expenditures. Such capital expenditures could adversely impact our cash flows and our financial condition.

Our United States operations are subject to governmental risks.

Our United States operations have been, and at times in the future may be, affected by political developments and by federal, state, and local laws and regulations such as restrictions on production, changes in taxes, royalties and other amounts payable to governments or governmental agencies, price or gathering rate controls, and environmental protection laws and regulations.

In response to the Deepwater Horizon incident in the U.S. Gulf of Mexico in April 2010 and as directed by the Secretary of the U.S. Department of the Interior, the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) issued guidelines and regulations regarding safety, environmental matters, drilling equipment, and decommissioning applicable to drilling in the Gulf of Mexico. These regulations imposed additional requirements and caused delays with respect to development and production activities in the Gulf of Mexico.

With respect to oil and gas operations in the Gulf of Mexico, the BOEM has issued a Notice to Lessees (NTL No. 2016-N01) significantly revising the obligations of companies operating in the Gulf of Mexico to provide supplemental assurances of performance with respect to plugging, abandonment, and decommissioning obligations associated with wells, platforms, structures, and facilities located upon or used in connection with such companies' oil and gas leases. While requirements under the NTL have not yet been fully implemented by BOEM, the NTL will likely require that Apache provide additional security to BOEM with respect to plugging, abandonment, and decommissioning obligations relating to Apache's current ownership interests in various Gulf of Mexico leases. We are working closely with BOEM to make arrangements for the provision of such additional required security, if such security becomes necessary under the NTL. Additionally, we are not able to predict the effect that these changes might have on counterparties to which Apache has sold Gulf of Mexico assets or with whom Apache has joint ownership. Such changes could cause the bonding obligations of such parties to increase substantially, thereby causing a significant impact on the counterparties' solvency and ability to continue as a going concern.

New political developments, the enactment of new or stricter laws or regulations or other governmental actions impacting our United States operations, and increased liability for companies operating in this sector may adversely impact our results of operations.

Changes to existing regulations related to emissions and the impact of any changes in climate could adversely impact our business.

Certain countries where we operate, including the United Kingdom, either tax or assess some form of greenhouse gas (GHG) related fees on our operations. Exposure has not been material to date, although a change in existing regulations could adversely affect our cash flows and results of operations. Additionally, there has been discussion in other countries where we operate, including the United States, regarding legislation or regulation of GHG. Any such legislation or regulation, if enacted, could either tax or assess some form of GHG-related fees on our operations and could lead to increased operating expenses or cause us to make significant capital investments for infrastructure modifications.

In the event the predictions for rising temperatures and sea levels suggested by reports of the United Nations Intergovernmental Panel on Climate Change do transpire, we do not believe those events by themselves are likely to impact our assets or operations. However, any increase in severe weather could have a material adverse effect on our assets and operations.

Negative public perception regarding us and/or our industry could have an adverse effect on our operations.

Negative public perception regarding us and/or our industry resulting from, among other things, concerns raised by advocacy groups about hydraulic fracturing, waste disposal, oil spills, and explosions of natural gas transmission lines may lead to increased regulatory scrutiny, which may, in turn, lead to new state and federal safety and environmental laws, regulations, guidelines, and enforcement interpretations. These actions may cause operational delays or restrictions, increased operating costs, additional regulatory burdens, and increased risk of litigation. Moreover, governmental authorities exercise considerable discretion in the timing and scope of permit issuance, and the public may engage in the permitting process, including through intervention in the courts. Negative public perception could cause the permits we require to conduct our operations to be withheld, delayed, or burdened by requirements that restrict our ability to profitably conduct our business.

Changes in tax rules and regulations, or interpretations thereof, may adversely affect our business, financial condition, and results of operations.

On December 22, 2017, the Tax Cuts and Jobs Act (the TCJA) was signed into law. In addition to reducing the U.S. corporate income tax rate from 35 percent to 21 percent effective January 1, 2018, certain provisions in the TCJA move the U.S. away from a worldwide tax system and closer to a territorial system for earnings of foreign corporations, establishing a participation exemption system for taxation of foreign income. The new law includes a transition rule to effect this participation exemption regime. The TCJA also includes provisions which could impact or limit the Company’s ability to deduct interest expense or utilize net operating losses.

The U.S. federal and state income tax laws affecting oil and gas exploration, development, and extraction may be further modified by administrative, legislative, or judicial interpretation at any time. Previous legislative proposals, if enacted into law, could make significant changes to such laws, including the elimination of certain key U.S. federal income tax incentives currently available to oil and gas exploration and production companies. These changes include, but are not limited to, (i) the repeal of the percentage depletion allowance for oil and gas properties, (ii) the elimination of current deductions for intangible drilling and development costs, and (iii) an extension of the amortization period for certain geological and geophysical expenditures. The passage or adoption of these changes, or similar changes, could eliminate or postpone certain tax deductions that are currently available with respect to oil and gas exploration and development. We are unable to predict whether any of these changes or other proposals will be enacted. Any such changes could adversely affect our business, financial condition, and results of operations.

Proposed federal, state, or local regulation regarding hydraulic fracturing could increase our operating and capital costs.

Several proposals are before the U.S. Congress that, if implemented, would either prohibit or restrict the practice of hydraulic fracturing or subject the process to regulation under the Safe Drinking Water Act. Several states and political subdivisions are considering legislation, ballot initiatives, executive orders, or other actions to regulate hydraulic fracturing practices that could impose more stringent permitting, transparency, and well construction requirements on hydraulic-fracturing operations or otherwise seek to ban fracturing activities altogether. Hydraulic fracturing of wells and subsurface water disposal are also under public and governmental scrutiny due to potential environmental and physical impacts, including possible contamination of groundwater and drinking water and possible links to induced seismicity. In addition, some municipalities have significantly limited or prohibited drilling activities and/or hydraulic fracturing or are considering doing so. We routinely use fracturing techniques in the U.S. and other regions to expand the available space for natural gas and oil to migrate toward the wellbore. It is typically done at substantial depths in formations with low permeability.

Although it is not possible at this time to predict the final outcome of the governmental actions regarding hydraulic fracturing, any new federal, state, or local restrictions on hydraulic fracturing that may be imposed in areas in which we conduct business could result in increased compliance costs or additional operating restrictions in the U.S.

International operations have uncertain political, economic, and other risks.

Our operations outside the United States are based primarily in Egypt and the United Kingdom. On a barrel equivalent basis, approximately 41 percent of our 2019 production was outside the United States, and approximately 32 percent of our estimated proved oil and gas reserves on December 31, 2019, were located outside the United States. As a result, a significant portion of our production and resources are subject to the increased political and economic risks and other factors associated with international operations including, but not limited to:

- general strikes and civil unrest;
- the risk of war, acts of terrorism, expropriation and resource nationalization, and forced renegotiation or modification of existing contracts;
- import and export regulations;
- taxation policies, including royalty and tax increases and retroactive tax claims, and investment restrictions;
- price control;
- transportation regulations and tariffs;
- constrained oil or natural gas markets dependent on demand in a single or limited geographical area;
- exchange controls, currency fluctuations, devaluations, or other activities that limit or disrupt markets and restrict payments or the movement of funds;
- laws and policies of the United States affecting foreign trade, including trade sanctions;
- the effects of the U.K.'s withdrawal from the European Union, including any resulting instability in global financial markets or the value of foreign currencies such as the British pound;
- the possibility of being subject to exclusive jurisdiction of foreign courts in connection with legal disputes relating to licenses to operate and concession rights in countries where we currently operate;
- the possible inability to subject foreign persons, especially foreign oil ministries and national oil companies, to the jurisdiction of courts in the United States; and
- difficulties in enforcing our rights against a governmental agency because of the doctrine of sovereign immunity and foreign sovereignty over international operations.

Foreign countries have occasionally asserted rights to oil and gas properties through border disputes. If a country claims superior rights to oil and gas leases or concessions granted to us by another country, our interests could decrease in value or be lost. Even our smaller international assets may affect our overall business and results of operations by distracting management's attention from our more significant assets. Certain regions of the world in which we operate have a history of political and economic instability. This instability could result in new governments or the adoption of new policies that might result in a substantially more hostile attitude toward foreign investments such as ours. In an extreme case, such a change could result in termination of contract rights and expropriation of our assets. This could adversely affect our interests and our future profitability.

The impact that future terrorist attacks or regional hostilities, as have occurred in countries and regions in which we operate, may have on the oil and gas industry in general and on our operations in particular is not known at this time. Uncertainty surrounding military strikes or a sustained military campaign may affect operations in unpredictable ways, including disruptions of fuel supplies and markets, particularly oil, and the possibility that infrastructure facilities, including pipelines, production facilities, processing plants, and refineries, could be direct targets or indirect casualties of an act of terror or war. We may be required to incur significant costs in the future to safeguard our assets against terrorist activities.

A deterioration of conditions in Egypt or changes in the economic and political environment in Egypt could have an adverse impact on our business.

Deterioration in the political, economic, and social conditions or other relevant policies of the Egyptian government, such as changes in laws or regulations, export restrictions, expropriation of our assets or resource nationalization, and/or forced renegotiation or modification of our existing contracts with EGPC, or threats or acts of terrorism could materially and adversely affect our business, financial condition, and results of operations. Our operations in Egypt, excluding the impacts of a one-third noncontrolling interest, contributed 21 percent of our 2019 production and accounted for 13 percent of our year-end estimated proved reserves and 23 percent of our estimated discounted future net cash flows.

Our operations are sensitive to currency rate fluctuations.

Our operations are sensitive to fluctuations in foreign currency exchange rates, particularly between the U.S. dollar and the British pound. Our financial statements, presented in U.S. dollars, may be affected by foreign currency fluctuations through both translation risk and transaction risk. Volatility in exchange rates may adversely affect our results of operations, particularly through the weakening of the U.S. dollar relative to other currencies.

We do not always control decisions made under joint operating agreements, and the parties under such agreements may fail to meet their obligations.

We conduct many of our E&P operations through joint operating agreements with other parties under which we may not control decisions, either because we do not have a controlling interest or are not an operator under the agreement. There is risk that these parties may at any time have economic, business, or legal interests or goals that are inconsistent with ours, and, therefore, decisions may be made which are not what we believe to be in our best interest. Moreover, parties to these agreements may be unable to meet their economic or other obligations, and we may be required to fulfill those obligations alone. In either case, the value of our investment may be adversely affected.

We face strong industry competition that may have a significant negative impact on our results of operations.

Strong competition exists in all sectors of the oil and gas E&P industry. We compete with major integrated and other independent oil and gas companies for acquisitions of oil and gas leases, properties, and reserves, equipment and labor required to explore, develop, and operate those properties, and marketing of crude oil, natural gas, and NGL production. Crude oil, natural gas, and NGL prices impact the costs of properties available for acquisition and the number of companies with the financial resources to pursue acquisition opportunities. Many of our competitors have financial and other resources substantially larger than we possess and have established strategic, long-term positions and maintain strong governmental relationships in countries in which we may seek new entry. As a consequence, we may be at a competitive disadvantage in bidding for drilling rights. In addition, many of our larger competitors may have a competitive advantage when responding to factors that affect demand for oil and gas production, such as fluctuating worldwide commodity prices and levels of production, the cost and availability of alternative fuels, and the application of government regulations. We also compete in attracting and retaining personnel, including geologists, geophysicists, engineers, and other specialists. These competitive pressures may have a significant negative impact on our results of operations.

Our insurance policies do not cover all of the risks we face, which could result in significant financial exposure.

Exploration for and production of crude oil, natural gas, and NGLs can be hazardous, involving natural disasters and other events such as blowouts, cratering, fires, explosions, and loss of well control, which can result in damage to or destruction of wells or production facilities, injury to persons, loss of life, or damage to property or the environment. Our international operations are also subject to political risk. The insurance coverage that we maintain against certain losses or liabilities arising from our operations may be inadequate to cover any such resulting liability; moreover, insurance is not available to us against all operational risks.

Certain anti-takeover provisions in our charter and Delaware law could delay or prevent a hostile takeover.

Our charter authorizes our board of directors to issue preferred stock in one or more series and to determine the voting rights and dividend rights, dividend rates, liquidation preferences, conversion rights, redemption rights, including sinking fund provisions and redemption prices, and other terms and rights of each series of preferred stock. In addition, Delaware law imposes restrictions on mergers and other business combinations between us and any holder of 15 percent or more of our outstanding common stock. These provisions may deter hostile takeover attempts that could result in an acquisition of us that would have been financially beneficial to our shareholders.

We own an approximate 79 percent interest in Altus, which holds substantially all of our former gathering, processing and transmission assets in Alpine High. Altus may be subject to different risks than those described in this Form 10-K.

We own an approximate 79 percent interest in Altus, which holds substantially all of our former gathering, processing and transmission assets in Alpine High. Altus owns, develops, and operates a midstream energy asset network in the Permian Basin of West Texas, anchored by midstream service contracts to service Apache’s production from its Alpine High resource play. Altus primarily generates revenue by providing fee-based natural gas gathering, compression, processing and transmission services. Given the nature of its business, Altus may be subject to different and additional risks than those described in this Form 10-K. For a description of these risks, please refer to the Forms 10-K and 10-Q filed by ALTM.

ITEM 1B. *UNRESOLVED STAFF COMMENTS*

As of December 31, 2019, we did not have any unresolved comments from the SEC staff that were received 180 or more days prior to year-end.

ITEM 3. *LEGAL PROCEEDINGS*

The information set forth under “Legal Matters” and “Environmental Matters” in Note 11—Commitments and Contingencies in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K is incorporated herein by reference.

ITEM 4. *MINE SAFETY DISCLOSURES*

None.

PART II

ITEM 5. *MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS, AND ISSUER PURCHASES OF EQUITY SECURITIES*

During 2019, Apache common stock, par value $0.625 per share, was traded on the New York and Chicago Stock Exchanges and the Nasdaq Global Select Market under the symbol "APA." The closing price of our common stock, as reported on the New York Stock Exchange Composite Transactions Reporting System for January 31, 2020 (last trading day of the month), was $27.44 per share. As of January 31, 2020, there were 377,316,159 shares of our common stock outstanding held by approximately 3,600 stockholders of record and 187,000 beneficial owners.

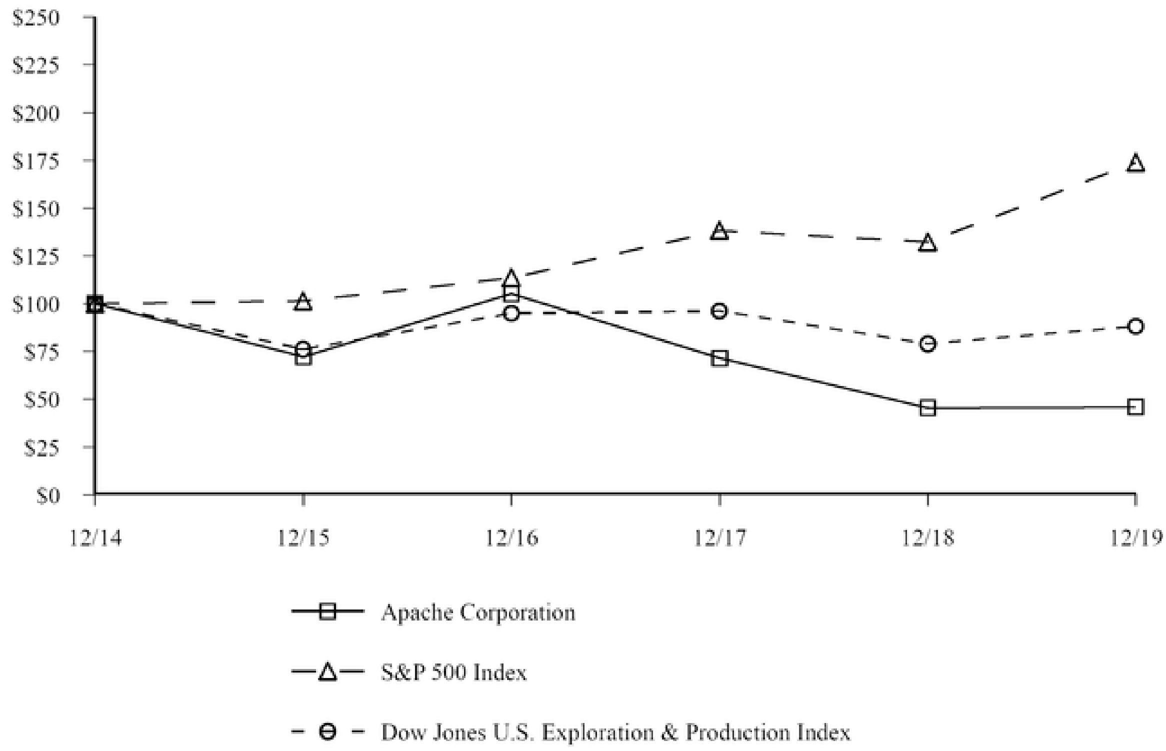
We have paid cash dividends on our common stock for 55 consecutive years through December 31, 2019. When, and if, declared by our Board of Directors, future dividend payments will depend upon our level of earnings, financial requirements, and other relevant factors.

Information concerning securities authorized for issuance under equity compensation plans is set forth under the caption "Equity Compensation Plan Information" in the proxy statement relating to the Company's 2020 annual meeting of stockholders, which is incorporated herein by reference.

The following stock price performance graph is intended to allow review of stockholder returns, expressed in terms of the performance of the Company's common stock relative to two broad-based stock performance indices. The information is included for historical comparative purposes only and should not be considered indicative of future stock performance. The graph compares the yearly percentage change in the cumulative total stockholder return on the Company's common stock with the cumulative total return of the Standard & Poor's 500 Index (S&P 500 Index) and of the Dow Jones U.S. Exploration & Production Index (formerly Dow Jones Secondary Oil Stock Index) from December 31, 2014, through December 31, 2019. The stock performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934, each as amended, except to the extent that the Company specifically incorporates it by reference into such filing.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Apache Corporation, the S&P 500 Index,
and the Dow Jones U.S. Exploration & Production Index



* $100 invested on 12/31/14 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

	2014	2015	2016	2017	2018	2019
Apache Corporation	$ 100.00	$ 72.26	$ 105.25	$ 71.43	$ 45.44	$ 45.92
S&P 500 Index	100.00	101.38	113.51	138.29	132.23	173.86
Dow Jones U.S. Exploration & Production Index	100.00	76.27	94.94	96.18	79.09	88.10

ITEM 6. *SELECTED FINANCIAL DATA*

The following table sets forth selected financial data of the Company and its consolidated subsidiaries over the five-year period ended December 31, 2019. This information should be read in connection with, and is qualified in its entirety by, the more detailed information in the Company's financial statements set forth in Part IV, Item 15 of this Form 10-K. Certain amounts for prior years have been reclassified to conform to the current presentation. Factors that materially affect the comparability of this information are disclosed in Management's Discussion and Analysis under Item 7 of this Form 10-K.

	As of or for the Year Ended December 31,				
	2019	**2018**	**2017**	**2016**	**2015**
	(In millions, except per share amounts)				
Income Statement Data					
Oil and gas production revenues	$ 6,315	$ 7,348	$ 5,887	$ 5,367	$ 6,510
Net income (loss) from continuing operations attributable to common shareholders	(3,553)	40	1,304	(1,372)	(10,844)
Net income (loss) from continuing operations per share:					
Basic	(9.43)	0.11	3.42	(3.62)	(28.70)
Diluted	(9.43)	0.11	3.41	(3.62)	(28.70)
Cash dividends declared per common share	1.00	1.00	1.00	1.00	1.00
Balance Sheet Data					
Total assets	$ 18,107	$ 21,582	$ 21,922	$ 22,519	$ 25,500
Long-term debt	8,555	8,093	7,934	8,544	8,716
Total equity	4,465	8,812	8,791	7,679	9,490
Common shares outstanding	376	375	381	379	378

For a discussion of significant acquisitions and divestitures, see Note 2—Acquisitions and Divestitures in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read together with the Consolidated Financial Statements and the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K, and the risk factors and related information set forth in Part I, Item 1A and Part II, Item 7A of this Form 10-K. This section of this Form 10-K generally discusses 2019 and 2018 items and year-to-year comparisons between 2019 and 2018. Discussions of 2017 items and year-to-year comparisons between 2018 and 2017 that are not included in this Form 10-K are incorporated by reference to "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018 (filed with the SEC on March 1, 2019).

Overview

Apache's mission is to grow in an innovative, safe, environmentally responsible, and profitable manner for the long-term benefit of its stakeholders. Apache is focused on rigorous portfolio management, disciplined financial structure, and optimization of returns.

Apache Corporation, a Delaware corporation formed in 1954, is an independent energy company that explores for, develops, and produces natural gas, crude oil, and NGLs. Apache currently has exploration and production operations in three geographic areas: the U.S., Egypt, and offshore the U.K. in the North Sea (North Sea). Apache also has exploration interests in Suriname and other international locations that may, over time, result in reportable discoveries and development opportunities. Apache's midstream business is operated by Altus Midstream Company through its subsidiary Altus Midstream LP (collectively, Altus). Altus owns, develops, and operates a midstream energy asset network in the Permian Basin of West Texas. Additionally, Altus owns equity interests in a total of four Permian Basin pipelines that will access various points along the Texas Gulf Coast, providing it with fully integrated, wellhead-to-water connectivity.

Apache's U.S. unconventional assets are complemented by its conventional international assets in Egypt and the North Sea, each of which adds to the Company's inventory of exploration and development opportunities and generates cash flows in excess of current capital investments, facilitating the Company's ability to develop its onshore U.S. properties while maintaining financial flexibility in a volatile commodity price environment. Apache's diverse portfolio and asset inventory allows for very flexible allocation of capital across the portfolio. Consistent with this strategy, Apache closely monitors hydrocarbon pricing fundamentals and will reallocate capital as part of its ongoing planning process. For additional detail on the Company's forward capital investment outlook, refer to the "Capital and Operational Outlook" below.

For 2019, Apache reduced its upstream capital costs incurred by approximately 27 percent compared to the prior year in response to lower realized commodity prices. Worldwide crude oil price realizations declined 8 percent, and natural gas and natural gas liquids price realizations were lower by 27 percent and 41 percent, respectively, compared to 2018. Apache's capital spending reduction aligned with its $2.9 billion of cash from operating activities generated in 2019, which was down $910 million or 24 percent from the prior year. During the year, the Company advanced key environmental, social and governance initiatives, met corporate goals around capital spending and cash returns, and further streamlined and repositioned its asset portfolio. Specifically, the Company closed on several divestitures of non-core, gas-weighted assets in the Oklahoma and Texas panhandle areas. These decisions progressed Apache's efforts to invest to prioritize long-term returns and cash flow, strengthen its balance sheet, and maintain the Company's dividend.

During 2019, Apache reported a loss attributable to common stock of $3.6 billion, or $9.43 per diluted common share, compared to net income of $40 million, or $0.11 per share in 2018. The 2019 results include asset impairments of $2.9 billion and unproved leasehold impairments of $619 million. These non-cash impairments were primarily related to the Company's upstream assets in Alpine High and gathering and processing assets from the consolidated results of Altus Midstream. Given the prevailing gas and NGL price environment and disappointing performance of recent multi-well development pads, Apache materially reduced planned investment and currently has no future drilling plans at Alpine High.

Operational Highlights

Key operational highlights for the year include:

United States

- Equivalent production from the Permian region, which accounts for 91 percent of Apache's total U.S. production, increased 21 percent from 2018 to 2019 driven by the success of the Midland Basin oil-focused drilling program and production increases at its Alpine High field. The Permian region averaged 11 operated rigs during the year, drilling 233 gross wells.

International

- The Egypt region's gross equivalent production decreased 7 percent and net production decreased 11 percent from 2018 primarily a result of natural decline and fewer wells brought on-line during the period. The region continues to build and enhance its robust drilling inventory, supplemented with recent seismic acquisitions and new play concept evaluations, on both new and existing acreage.
- The North Sea region averaged 3 rigs during 2019, drilling 11 gross development wells with a 100 percent success rate. During the year, the region averaged production of 61 Mboe/d and contributed $1.3 billion of revenues. Production increased 9 percent from 2018, primarily the result of production from the Garten field, which came on-line in November 2018.
- The North Sea region's Storr exploration discovery came on-line in the fourth quarter of 2019, and its second well at Garten came on-line in the first quarter of 2020. The first well at the Company's Storr development is a high-rate gas condensate well that is tied back to existing infrastructure at the Beryl Alpha platform. The Garten #2 well encountered approximately 1,200 feet of net pay and compares favorably to the Garten #1 well, which came on-line in November 2018 with initial 30-day production rates of 13 Mb/d and 17 MMcf/d from 700 feet of net pay. Apache holds a 100 percent working interest in the Garten complex.
- During 2019, the Company drilled an exploration well, the Maka Central-1, in Block 58 offshore Suriname and announced a significant oil discovery in January 2020. The well successfully tested the presence of hydrocarbons in multiple stacked targets in the upper Cretaceous-aged Campanian and Santonian intervals. The well confirmed 73 meters of oil pay and 50 meters of light oil and gas condensate pay, and appraisal planning is underway. The Company began drilling its second exploration well, Sapakara West-1, in January 2020. Following completion of the Sapakara West-1, the Company will drill a third, and likely a fourth exploration test in Block 58 during 2020.
- In December 2019, Apache entered into a joint venture agreement to explore and develop Block 58 offshore Suriname. Under the terms of the agreement, Apache and Total S.A. will each hold a 50 percent working interest in Block 58, which comprises approximately 1.4 million acres in water depths ranging from less than 100 meters to more than 2,100 meters. In exchange for a 50 percent interest, Apache will receive various forms of consideration, including $5 billion of carry for its first $7.5 billion of appraisal and development capital and 25 percent carry on all appraisal and development capital beyond its first $7.5 billion. The Company also received $100 million at closing and $75 million in the first quarter of 2020 for reimbursement of 50 percent of all costs incurred on Block 58 to date. Apache will receive an additional $75 million upon achievement of first oil production. Apache will operate the drilling of the first three exploration wells in the block (and may operate a fourth), including the Maka Central-1 well, and subsequently transfer operatorship to Total.

For a more detailed discussion related to Apache's various geographic regions, please refer to "Upstream Exploration and Production Properties—Operating Areas" set forth in Part I, Item 1 and 2 of this Form 10-K.

Acquisition and Divestiture Activity

Over Apache's 65-year history, the Company has repeatedly demonstrated its ability to capitalize quickly and decisively on changes in its industry and economic conditions. A key component of this strategy is to continuously review and optimize Apache's portfolio of assets in response to these changes. Most recently, Apache has completed a series of divestitures designed to monetize nonstrategic assets and enhance Apache's portfolio in order to allocate resources to more impactful exploration and development opportunities. These divestments include:

- *Midcontinent/Gulf Coast Divestiture* In the second quarter of 2019, Apache completed the sale of non-core, gas-weighted assets in the Woodford-SCOOP and STACK plays for aggregate cash proceeds of approximately $223 million. In the third quarter of 2019, Apache completed the sale of non-core, gas-weighted assets in the western Anadarko Basin of

Oklahoma and Texas for aggregate cash proceeds of approximately $322 million and the assumption of asset retirement obligations of $49 million.

- *U.S. Leasehold Divestitures & Other* During 2019, the Company also completed the sale of certain other non-core producing assets, GPT assets, and leasehold acreage, primarily in the Permian region, in multiple transactions for total cash proceeds of $73 million.
- *Altus Transaction* In the fourth quarter of 2018, the Company completed the previously announced agreement with Altus Midstream Company and its then wholly-owned subsidiary Altus Midstream LP (collectively, Altus). Altus owns gas gathering, processing, and transmission assets in the Permian Basin of West Texas, anchored by midstream contracts to service Apache’s production from its Alpine High resource play. Altus primarily generates revenue by providing fee-based natural gas gathering, compression, processing, and transmission services.
- *Altus Pipeline Options* As part of the Altus transaction, Apache contributed options to acquire equity interests in five separate third-party pipeline projects to Altus Midstream LP and/or its subsidiaries. As of December 31, 2019, four of the five joint venture equity options had been exercised by Altus to acquire various ownership interests in the associated third-party pipeline limited liability entities.
- *U.S. and North Sea Divestitures* During 2018, Apache completed the sale of certain non-core assets, primarily leasehold acreage in the U.S. and North Sea regions, in multiple transactions for total cash proceeds of approximately $138 million.
- *Canadian Operations* On June 30, 2017, Apache completed the sale of its Canadian assets at Midale and House Mountain for total cash proceeds of approximately $228 million. In August of 2017, Apache completed the sale of its remaining Canadian operations for cash proceeds of approximately $478 million, effectively exiting operations in Canada.
- *U.S. Leasehold Divestitures* During 2017, Apache completed the sale of certain non-core assets, primarily leasehold acreage in the Permian and Midcontinent/Gulf Coast regions, in multiple transactions for total cash proceeds of $798 million.
- *North Sea Gathering, Processing, and Transmission (GPT) Facility* In November 2017, Apache completed the sale of its 30.28 percent interest in the Scottish Area Gas Evacuation (SAGE) gas plant and its 60.56 percent interest in the Beryl pipeline in the North Sea to Ancala Midstream Acquisitions Limited for cash proceeds of $134 million.

For detailed information regarding Apache’s acquisitions and divestitures, please refer to Note 2—Acquisitions and Divestitures in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K.

Results of Operations

Oil and Gas Revenues

Apache's oil and gas revenues by region are as follows:

	For the Year Ended December 31,					
	2019		2018		2017	
	$ Value	% Contribution	$ Value	% Contribution	$ Value	% Contribution
	($ in millions)					
Total Oil Revenues:						
United States	$ 2,098	40%	$ 2,271	39%	$ 1,616	35%
Canada	—	—	—	—	110	3%
North America	2,098	40%	2,271	39%	1,726	38%
Egypt(1)	1,969	38%	2,396	41%	1,901	41%
North Sea	1,163	22%	1,179	20%	971	21%
International(1)	3,132	60%	3,575	61%	2,872	62%
Total(1)	$ 5,230	100%	$ 5,846	100%	$ 4,598	100%
Total Natural Gas Revenues:						
United States	$ 293	43%	$ 458	50%	$ 368	38%
Canada	—	—	—	—	104	11%
North America	293	43%	458	50%	472	49%
Egypt(1)	295	44%	339	37%	395	41%
North Sea	90	13%	122	13%	92	10%
International(1)	385	57%	461	50%	487	51%
Total(1)	$ 678	100%	$ 919	100%	$ 959	100%
Total NGL Revenues:						
United States	$ 372	91%	$ 550	94%	$ 287	87%
Canada	—	—	—	—	17	5%
North America	372	91%	550	94%	304	92%
Egypt(1)	12	3%	13	2%	11	3%
North Sea	23	6%	20	4%	15	5%
International(1)	35	9%	33	6%	26	8%
Total(1)	$ 407	100%	$ 583	100%	$ 330	100%
Total Oil and Gas Revenues:						
United States	$ 2,763	44%	$ 3,279	45%	$ 2,271	39%
Canada	—	—	—	—	231	4%
North America	2,763	44%	3,279	45%	2,502	43%
Egypt(1)	2,276	36%	2,748	37%	2,307	39%
North Sea	1,276	20%	1,321	18%	1,078	18%
International(1)	3,552	56%	4,069	55%	3,385	57%
Total(1)	$ 6,315	100%	$ 7,348	100%	$ 5,887	100%

(1) Amounts include revenue attributable to a noncontrolling interest in Egypt.

Production

The following table presents production volumes by region:

	For the Year Ended December 31,				
	2019	Increase (Decrease)	2018	Increase (Decrease)	2017
Oil Volume – b/d:					
United States	105,051	—	104,800	15%	91,489
Canada	—	—	—	—	6,643
North America	105,051	—	104,800	7%	98,132
Egypt[1][2]	84,617	(10)%	93,656	(4)%	97,242
North Sea	49,746	6%	46,953	(4)%	48,889
International	134,363	(4)%	140,609	(4)%	146,131
Total	239,414	(2)%	245,409	—	244,263
Natural Gas Volume – Mcf/d:					
United States	639,580	8%	593,254	50%	394,366
Canada	—	—	—	—	131,479
North America	639,580	8%	593,254	13%	525,845
Egypt[1][2]	285,972	(12)%	326,811	(15)%	386,194
North Sea	54,642	20%	45,466	—	45,521
International	340,614	(9)%	372,277	(14)%	431,715
Total	980,194	2%	965,531	1%	957,560
NGL Volume – b/d:					
United States	68,381	19%	57,451	18%	48,674
Canada	—	—	—	—	2,827
North America	68,381	19%	57,451	12%	51,501
Egypt[1][2]	931	1%	923	13%	816
North Sea	1,739	46%	1,189	3%	1,149
International	2,670	26%	2,112	7%	1,965
Total	71,051	19%	59,563	11%	53,466
BOE per day:[3]					
United States	280,029	7%	261,126	27%	205,891
Canada	—	—	—	—	31,383
North America	280,029	7%	261,126	10%	237,274
Egypt[1][2]	133,209	(11)%	149,048	(8)%	162,424
North Sea[4]	60,592	9%	55,719	(3)%	57,624
International	193,801	(5)%	204,767	(7)%	220,048
Total	473,830	2%	465,893	2%	457,322

(1) Gross oil, natural gas, and NGL production in Egypt were as follows:

	2019	2018	2017
Oil (b/d)	193,886	206,378	198,335
Natural Gas (Mcf/d)	708,682	769,468	805,478
NGL (b/d)	1,722	1,502	1,353

(2) Includes net production volumes per day attributable to a noncontrolling interest in Egypt of:

	2019	2018	2017
Oil (b/d)	28,220	31,240	32,461
Natural Gas (Mcf/d)	95,539	109,169	128,756
NGL (b/d)	310	308	272

(3) The table shows production on a boe basis in which natural gas is converted to an equivalent barrel of oil based on a ratio of 6 Mcf to 1 bbl. This ratio is not reflective of the price ratio between the two products.

(4) Average sales volumes from the North Sea were 59,797 boe/d, 55,568 boe/d, and 58,177 boe/d for 2019, 2018, and 2017, respectively. Sales volumes may vary from production volumes as a result of the timing of liftings in the Beryl field.

Pricing

The following table presents pricing information by region:

	For the Year Ended December 31,				
	2019	Increase (Decrease)	2018	Increase (Decrease)	2017
Average Oil Price - Per barrel:					
United States	$ 54.71	(8)%	$ 59.36	23%	$ 48.40
Canada	—	—	—	—	45.25
North America	54.71	(8)%	59.36	23%	48.18
Egypt	63.76	(9)%	70.09	31%	53.57
North Sea	65.10	(6)%	69.02	28%	53.81
International	64.25	(8)%	69.73	30%	53.65
Total	60.05	(8)%	65.30	27%	51.46
Average Natural Gas Price - Per Mcf:					
United States	$ 1.26	(41)%	$ 2.12	(17)%	$ 2.56
Canada	—	—	—	—	2.17
North America	1.26	(41)%	2.12	(14)%	2.46
Egypt	2.83	—	2.84	1%	2.80
North Sea	4.48	(39)%	7.33	32%	5.54
International	3.09	(9)%	3.39	10%	3.09
Total	1.90	(27)%	2.61	(5)%	2.74
Average NGL Price - Per barrel:					
United States	$ 14.95	(43)%	$ 26.28	63%	$ 16.14
Canada	—	—	—	—	16.39
North America	14.95	(43)%	26.28	63%	16.15
Egypt	33.87	(14)%	39.17	6%	36.79
North Sea	36.83	(20)%	45.84	27%	36.22
International	35.80	(17)%	42.93	18%	36.46
Total	15.74	(41)%	26.87	59%	16.90

Crude Oil Prices

A substantial portion of our crude oil production is sold at prevailing market prices, which fluctuate in response to many factors that are outside of the Company's control. Average realized crude oil prices for 2019 were down 8 percent compared to 2018, a direct result of the decreasing benchmark oil prices over the past year. Crude oil prices realized in 2019 averaged $60.05 per barrel.

Continued volatility in the commodity price environment reinforces the importance of our asset portfolio. While the market price received for natural gas varies among geographic areas, crude oil tends to trade within a global market. Price movements for all types and grades of crude oil generally move in the same direction.

Natural Gas Prices

Natural gas, which currently has a limited global transportation system, is subject to price variances based on local supply and demand conditions. Our primary markets include North America, Egypt, and the U.K. An overview of the market conditions in our primary gas-producing regions follows:

- North America has a common market. Most of the Company's gas is sold on a monthly or daily basis at either monthly or daily index-based prices. The Company's U.S. regions averaged $1.26 per Mcf in 2019, down from $2.12 per Mcf in 2018. Current year prices realized by Apache were negatively influenced by limited pipeline takeaway capacity from the Permian Basin that resulted in over supply at various locations in the basin.

- In Egypt, our gas is sold to Egyptian General Petroleum Corporation (EGPC), primarily under an industry-pricing formula, a sliding scale based on Dated Brent crude oil with a minimum of $1.50 per MMBtu and a maximum of $2.65 per MMBtu, plus an upward adjustment for liquids content. Overall, the region averaged $2.83 per Mcf in 2019, which remained flat compared with the prior year.

- Natural gas from the North Sea Beryl field is processed through the SAGE gas plant. The gas is sold to a third party at the St. Fergus entry point of the national grid on a National Balancing Point index price basis. The region averaged $4.48 per Mcf in 2019, a 39 percent decrease from an average of $7.33 per Mcf in 2018.

NGL Prices

Apache's U.S. NGL production, which accounts for 96 percent of the Company's total 2019 NGL production, is sold under contracts with prices at market indices based on Gulf Coast supply and demand conditions, less the costs for transportation and fractionation, or on a weighted-average sales price received by the purchaser.

Crude Oil Revenues Crude oil revenues for 2019 totaled $5.2 billion, a $616 million decrease from the 2018 total of $5.8 billion. An 8 percent decrease in average realized prices reduced 2019 revenues by $470 million compared to 2018, while 2 percent lower average daily production decreased revenues by $146 million. Average daily production in 2019 was 239.4 Mb/d, with prices averaging $60.05 per barrel. Crude oil accounted for 83 percent of Apache's 2019 oil and gas production revenues and 51 percent of its worldwide production.

Worldwide crude oil production decreased 6.0 Mb/d compared to 2018, primarily a result of lower gross production in Egypt due to natural decline.

Natural Gas Revenues Natural gas revenues for 2019 totaled $678 million, a $241 million decrease from the 2018 total of $919 million. A 27 percent decrease in average realized prices reduced 2019 revenues by $251 million compared to 2018, while 2 percent higher average daily production increased revenues by $10 million. Average daily production in 2019 was 980 MMcf/d, with prices averaging $1.90 per Mcf. Natural gas accounted for 11 percent of Apache's 2019 oil and gas production revenues and 34 percent of its worldwide production.

Worldwide gas production increased 14.7 MMcf/d compared to 2018, primarily a result of the Alpine High development, partially offset by lower gross production in Egypt due to natural decline and the sale of the Company's Woodford-SCOOP and STACK plays and western Anadarko Basin assets in the U.S.

NGL Revenues NGL revenues for 2019 totaled $407 million, a $176 million decrease from the 2018 total of $583 million. A 41 percent decrease in average realized prices reduced 2019 revenues by $242 million compared to 2018, while 19 percent higher average daily production increased revenues by $66 million. Average daily production in 2019 was 71.1 Mb/d, with prices averaging $15.74 per barrel. NGLs accounted for 6 percent of Apache's 2019 oil and gas production revenues and 15 percent of its worldwide production.

Worldwide production of NGLs increased 11.5 Mb/d compared to 2018, primarily a result of the Alpine High development and partially offset by the sale of the Company's Woodford-SCOOP and STACK plays and western Anadarko Basin assets in the U.S.

Altus Revenues

Apache is the largest single owner of the voting common stock of Altus and has an approximate 79 percent ownership interest in Altus. Altus generates revenue primarily by providing fee-based natural gas gathering, compression, processing, and transmission services. Altus owns and operates a midstream energy asset network in the Permian Basin of West Texas primarily to service Apache's production from its Alpine High resource play, which commenced production in May 2017.

During 2019 and 2018, midstream services revenues totaling $136 million and $77 million, respectively, were generated through fee-based contractual arrangements with Apache. These affiliated revenues are eliminated upon consolidation. The increase compared to the prior year was primarily driven by higher throughput volumes from Apache's drilling activity levels at Alpine High in late 2018 and the first half of 2019.

Given the prevailing gas and NGL price environment and disappointing performance of multi-well development pads in the second half of 2019, Apache materially reduced planned investment and currently has no future drilling plans at Alpine High. As such, Altus' aggregate gathering and processing volumes from Apache are expected to decline over time. Other producers developing plays in surrounding areas are expected to provide additional opportunities for Altus to pursue third-party treating, processing, and transportation agreements.

Operating Expenses

The table below presents a comparison of the Company's operating expenses for the years ended December 31, 2019, 2018, and 2017. All operating expenses include costs attributable to a noncontrolling interest in Egypt and ALTM.

	For the Year Ended December 31,		
	2019	**2018**	**2017**
		(In millions)	
Lease operating expenses	$ 1,447	$ 1,439	$ 1,384
Gathering, processing, and transmission	306	348	195
Taxes other than income	207	215	151
Exploration	805	503	549
General and administrative	406	431	395
Transaction, reorganization, and separation	50	28	16
Depreciation, depletion, and amortization:			
Oil and gas property and equipment	2,512	2,265	2,136
GPT assets	105	83	73
Other assets	63	57	71
Asset retirement obligation accretion	107	108	130
Impairments	2,949	511	8
Financing costs, net	462	478	397

Lease Operating Expenses (LOE)

LOE includes several key components, such as direct operating costs, repair and maintenance, and workover costs. Direct operating costs generally trend with commodity prices and are impacted by the type of commodity produced and the location of properties (i.e., offshore, onshore, remote locations, etc.). Fluctuations in commodity prices impact operating cost elements both directly and indirectly. They directly impact costs such as power, fuel, and chemicals, which are commodity price based. Commodity prices also affect industry activity and demand, thus indirectly impacting the cost of items such as rig rates, labor, boats, helicopters, materials, and supplies. Oil, which contributed approximately half of Apache's 2019 production, is inherently more expensive to produce than natural gas. Repair and maintenance costs are typically higher on offshore properties.

During 2019, LOE increased $8 million, or 1 percent, on an absolute dollar basis compared to 2018. On a per-unit basis, LOE decreased $0.09, or 1 percent, compared to 2018, from $8.47 per boe to $8.38 per boe. LOE in the U.S. decreased 10 percent on a per-BOE basis, partially offset by localized cost increases in Egypt.

Gathering, Processing, and Transmission (GPT)

GPT expenses include processing and transmission costs paid to third-party carriers and to Altus for Apache's upstream natural gas production associated with its Alpine High play. GPT expenses also include midstream operating costs incurred by Altus. The following table presents a summary of these expenses:

	For the Year Ended December 31,		
	2019	**2018**	**2017**
		(In millions)	
Third-party processing and transmission costs	$ 250	$ 294	$ 179
Midstream service affiliate costs	134	77	15
Upstream processing and transmission costs	384	371	194
Midstream operating expenses	56	54	16
Intersegment eliminations	(134)	(77)	(15)
Total Gathering, processing, and transmission	$ 306	$ 348	$ 195

GPT costs decreased $42 million from 2018. Third-party processing and transmission costs decreased $44 million, primarily driven by a decrease in contracted pricing and the Company’s sale of non-core assets in Oklahoma and Texas. Midstream operating expenses, incurred primarily by Altus, remained relatively flat compared to 2018.

Midstream service affiliate costs increased $57 million from 2018. The increase was commensurate with higher throughput volumes from Apache’s natural gas production at Alpine High. These affiliate costs are eliminated upon consolidation.

Taxes Other Than Income

Taxes other than income primarily consist of severance taxes on properties onshore and in state waters off the coast of the U.S. and ad valorem taxes on properties in the U.S. Severance taxes are generally based on a percentage of oil and gas production revenues. We are also subject to a variety of other taxes, including U.S. franchise taxes.

Taxes other than income totaled $207 million, a decrease of $8 million from 2018, primarily the result of a decrease in severance taxes on lower commodity prices and the divestiture of the Company’s non-core assets in Oklahoma and Texas, partially offset by ad valorem taxes on higher production levels and midstream infrastructure in the U.S.

Exploration Expense

Exploration expense includes unproved leasehold impairments, exploration dry hole expense, geological and geophysical expense, and the costs of maintaining and retaining unproved leasehold properties. Exploration expenses in 2019 increased $302 million compared to 2018. The following table presents a summary of these expenses:

	For the Year Ended December 31,		
	2019	**2018**	**2017**
		(In millions)	
Unproved leasehold impairments	$ 619	$ 214	$ 246
Dry hole expense	57	137	183
Geological and geophysical expense	59	55	47
Exploration overhead and other	70	97	73
Total Exploration	$ 805	$ 503	$ 549

Unproved leasehold impairments increased $405 million compared to 2018. Higher leasehold impairments in 2019 were associated with the Company’s decision to reallocate capital away from planned investment in the Alpine High play. Dry hole expense decreased $80 million compared to 2018, which is associated with reduced exploration activity when compared to the prior year. Exploration overhead decreased $27 million from 2018, primarily a result of a decrease in exploratory activity. The Company drilled 31 and 103 gross exploratory wells in 2019 and 2018, respectively.

General and Administrative (G&A) Expenses

G&A expenses decreased $25 million, or 6 percent, from 2018. The decrease in G&A expense was primarily related to lower cash-based stock compensation expense resulting from a decrease in the Company’s stock price and lower incentive compensation. The prior year periods also reflect a non-recurring charge to accelerate vesting on outstanding stock awards for certain retirement eligible employees.

Transaction, Reorganization, and Separation (TRS) Costs

TRS costs totaled $50 million, an increase of $22 million from 2018, primarily the result of severance costs associated with the Company’s reorganization announced during the fourth quarter of 2019.

Apache has historically employed a decentralized, region-focused approach to operations. In recent years, the Company has centralized certain operational activities in an effort to capture greater efficiencies through shared services. In light of the continued streamlining of the Company’s asset portfolio through divestitures and strategic transactions, in late 2019 management initiated a comprehensive redesign of Apache’s organizational structure and operations that it believes will better position the Company to be competitive for the long-term and further reduce recurring costs. The reorganization is ongoing and is expected to be substantially completed for the technical functions by the end of the first quarter of 2020. Changes for the corporate support functions will be ongoing through most of 2020.

Depreciation, Depletion and Amortization (DD&A)

Oil and gas property DD&A expense of $2.5 billion in 2019 increased $247 million compared to 2018, primarily a result of a higher depletion rate resulting from negative proved reserve revisions associated with natural gas and NGL pricing. The Company's oil and gas property DD&A rate increased $1.22 per boe in 2019 compared to 2018, from $13.33 to $14.55. GPT depreciation increased $22 million in 2019 compared to 2018, associated with capital spending to finalize construction on Altus midstream infrastructure.

Impairments

During 2019, the Company recorded asset impairments totaling $2.9 billion in connection with fair value assessments, including $1.5 billion for oil and gas proved properties in the U.S. primarily in Alpine High, $1.3 billion impairment of GPT facilities primarily in the Altus Midstream reporting segment, $149 million on divested unproved properties and leasehold acreage in the western Anadarko Basin in Oklahoma and Texas, and $21 million of inventory and other miscellaneous assets, including office leasehold impairments from Apache's recent announcement to close its San Antonio regional office. The impairments for Alpine High and Altus Midstream were associated with the Company's fourth quarter 2019 capital plan allocation decision to materially reduce planned investment in the Alpine High play.

During 2018, the Company recorded asset impairments totaling $511 million in connection with fair value assessments, including $328 million for oil and gas proved properties in the U.S. and Egypt, $56 million impairment of a gathering and processing facility in Oklahoma, $113 million for the impairment of an equity method investment based on a negotiated sales price, a $10 million impairment on the carrying values of capitalized exploratory well costs related to the sale of unproved properties in the North Sea, and $4 million for inventory write-downs.

The following table presents a summary of asset impairments recorded for 2019, 2018, and 2017:

	For the Year Ended December 31,		
	2019	2018	2017
	(In millions)		
Oil and gas proved property	$ 1,484	$ 328	$ —
GPT facilities	1,295	56	—
Equity method investment	—	113	—
Divested unproved properties and leasehold	149	10	—
Inventory and other	21	4	8
Total Impairments	$ 2,949	$ 511	$ 8

Financing Costs, Net

Financing costs incurred during the period comprised the following:

	For the Year Ended December 31,		
	2019	2018	2017
	(In millions)		
Interest expense	$ 430	$ 441	$ 457
Amortization of debt issuance costs	7	9	9
Capitalized interest	(37)	(44)	(51)
Loss on extinguishment of debt	75	94	1
Interest income	(13)	(22)	(19)
Total Financing costs, net	$ 462	$ 478	$ 397

Net financing costs decreased $16 million from 2018. The decrease is primarily related to lower interest expense and a smaller loss recognized from the extinguishment of debt in two separate debt tender offer transactions occurring during 2019 and 2018 as further discussed below under "Capital Resources and Liquidity." Interest income in 2019 decreased $9 million compared to the prior year on lower average cash balances held by the Company.

Provision for Income Taxes

Income tax expense in 2019 totaled $674 million. During 2019, Apache's effective tax rate was impacted primarily by an increase in the amount of valuation allowance against the Company's U.S. deferred tax assets. Income tax expense in 2018 totaled $672 million. During 2018, Apache's effective tax rate was impacted primarily by the adjustment to the provision amounts recorded in 2017 related to the enactment of the Tax Cuts and Jobs Act (the TCJA) and an increase in the Company's valuation allowance.

On December 22, 2017, the TCJA was signed into law. In addition to reducing the corporate income tax rate from 35 percent to 21 percent effective January 1, 2018, certain provisions in the TCJA move the U.S. away from a worldwide tax system and closer to a territorial system for earnings of foreign corporations, establishing a participation exemption system for taxation of foreign income. The new law includes a transition rule to effect this participation exemption regime. As a result of the enacted legislation, taxpayers were required to include in taxable income for the tax year ending December 31, 2017, the pro rata share of deferred income of each specified foreign corporation with respect to which the taxpayer is a U.S. shareholder. In 2017, the Company recorded a $419 million provisional deferred tax expense attributable to the deemed repatriation of foreign earnings required under the TCJA.

Also on December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (SAB 118), which provides guidance for the application of Accounting Standards Codification (ASC) Topic 740, Income Taxes, for the income tax effects of the TCJA. SAB 118 provides a measurement period which should not extend beyond one year of the enactment date of the TCJA. In 2018, the Company recorded an additional $103 million deferred tax expense attributable to the deemed repatriation of foreign earnings. This deferred tax expense combined with the provisional amount recorded in 2017 were fully offset by available foreign tax credits. The Company completed its analysis of the income tax effects of the TCJA in the fourth quarter of 2018.

Apache recorded a full valuation allowance against its U.S. net deferred tax assets. Apache will continue to maintain a full valuation allowance on its U.S. net deferred tax assets until there is sufficient evidence to support the reversal of all or some portion of this allowance.

For additional information regarding income taxes, please refer to Note 10—Income Taxes in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K.

Capital and Operational Outlook

Apache's strategic approach and multi-year outlook emphasizes retaining cash flow in excess of the Company's dividend payments, reducing outstanding debt, prioritizing long-term returns over growth, aggressively managing its cost structure, and advancing exploration and appraisal activities in Suriname. Apache's differentiated asset portfolio and continued capital allocation discipline will drive these efforts. Apache currently plans to invest $1.6 billion to $1.9 billion in its upstream oil and gas activities in 2020, assuming WTI pricing of approximately $50 per barrel. In terms of capital allocation, Alpine High will receive minimal to no funding, and some capital will be shifted from Permian oil projects to our Egypt region. Based on current plan projections, for 2020, the Company expects to:

- maintain its current dividend;
- retain cash flow to initiate progress on debt reduction goals;
- allocate approximately $200 million to exploration; and
- achieve flat-to-low single-digit corporate oil production growth, year-over-year.

To the extent WTI pricing continues to fall, capital investment will be reduced, as will near-term production outlooks. However, if oil prices move materially higher, the Company will prioritize further debt reduction over increasing capital activity. Apache also continues cost management efforts, centralizing the organization and emphasizing incentives directly related to specific asset performance rather than a region focus. The Company expects to achieve at least $150 million of annual savings from overhead and operating cost reductions associated with this initiative.

Separate from the Company's upstream oil and gas activities, Altus will primarily direct capital spending toward its equity method interests in four Permian Basin long-haul pipeline entities, which include the following equity interest ownership stakes:

- 16 percent in the Gulf Coast Express natural gas pipeline (GCX);
- 15 percent in the EPIC crude pipeline (EPIC);
- 26.7 percent in the Permian Highway natural gas pipeline (PHP); and
- 33 percent in the Shin Oak NGL pipeline (Shin Oak).

EPIC is installing additional operational storage capacity and completing an additional dock, and PHP is still under construction. The Company estimates that Altus, based on its equity interests in each pipeline, will incur approximately $300 million of additional capital contributions associated with the remaining construction costs in these joint venture pipelines during 2020. Infrastructure build-out for Altus' GPT assets was substantially completed during 2019, and capital investment for its GPT assets in 2020 is expected to be limited.

Capital Resources and Liquidity

Operating cash flows are the Company's primary source of liquidity. Apache's operating cash flows, both in the short-term and the long-term, are impacted by highly volatile oil and natural gas prices, as well as costs and sales volumes. Significant changes in commodity prices impact Apache's revenues, earnings and cash flows. These changes potentially impact Apache's liquidity if costs do not trend with changes in commodity prices. Historically, costs have trended with commodity prices, albeit on a lag. Sales volumes also impact cash flows; however, they have a less volatile impact in the short term.

Apache's long-term operating cash flows are dependent on reserve replacement and the level of costs required for ongoing operations. Cash investments are required to fund activity necessary to offset the inherent declines in production and proved crude oil and natural gas reserves. Future success in maintaining and growing reserves and production is highly dependent on the success of Apache's drilling program and its ability to add reserves economically. Changes in commodity prices also impact estimated quantities of proved reserves. In the year ended 2019, Apache recognized negative reserve revisions of approximately 11 percent of its year-end 2018 estimated proved reserves as a result of lower prices. If prices for 2020 approximate commodity future prices as of December 31, 2019, the Company is not reasonably likely to report additional negative revisions.

At times, the Company may also elect to utilize available cash on hand, committed borrowing capacity, access to both debt and equity capital markets, or proceeds from the sale of nonstrategic assets for all other liquidity and capital resource needs.

Apache believes the liquidity and capital resource alternatives available to the Company, combined with proactive measures to adjust its capital budget to reflect volatile commodity prices and anticipated operating cash flows, will be adequate to fund short-term and long-term operations, including Apache's capital development program, repayment of debt maturities, payment of dividends, and any amount that may ultimately be paid in connection with commitments and contingencies.

For additional information, please see Part I, Items 1 and 2—Business and Properties and Part I, Item 1A—Risk Factors of this Annual Report on Form 10-K.

Sources and Uses of Cash

The following table presents the sources and uses of the Company's cash and cash equivalents for the years presented:

	For the Year Ended December 31,		
	2019	**2018**	**2017**
		(In millions)	
Sources of Cash and Cash Equivalents:			
Net cash provided by operating activities	$ 2,867	$ 3,777	$ 2,428
Proceeds from Altus transaction	—	628	—
Proceeds from asset divestitures, net of cash divested	718	138	1,419
Fixed-rate debt borrowings	989	992	—
Proceeds from Altus credit facility	396	—	—
Redeemable noncontrolling interest - Altus Preferred Unit limited partners	611	—	—
	5,581	5,535	3,847
Uses of Cash and Cash Equivalents:			
Additions to oil and gas property(1)	$ 2,594	$ 3,190	$ 2,052
Additions to Altus gathering, processing, and transmission facilities(1)	327	581	530
Leasehold and property acquisitions	40	133	178
Altus equity method interests	1,172	91	—
Payments on fixed-rate debt	1,150	1,370	70
Dividends paid	376	382	380
Distributions to noncontrolling interest - Egypt	305	345	265
Shares repurchased	—	305	—
Other	84	92	81
	6,048	6,489	3,556
Increase (decrease) in cash and cash equivalents	$ (467)	$ (954)	$ 291

(1) The table presents capital expenditures on a cash basis; therefore, the amounts may differ from those discussed elsewhere in this document, which include accruals.

Sources of Cash and Cash Equivalents

Net Cash Provided by Operating Activities

Operating cash flows are the Company's primary source of capital and liquidity and are impacted, both in the short term and the long term, by volatile oil and natural gas prices. The factors that determine operating cash flows are largely the same as those that affect net earnings, with the exception of non-cash expenses such as DD&A, asset retirement obligation (ARO) accretion, exploratory dry hole expense, asset impairments, and deferred income tax expense.

Net cash provided by operating activities for 2019 totaled $2.9 billion, down $910 million from 2018. The decrease primarily reflects lower commodity prices during 2019 compared to 2018.

For a detailed discussion of commodity prices, production, and expenses, please see "Results of Operations" in this Item 7. For additional detail on the changes in operating assets and liabilities and the non-cash expenses that do not impact net cash provided by operating activities, please see the Statement of Consolidated Cash Flows in the Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K.

Proceeds from Altus Transaction and Asset Divestitures

In November 2018, Apache and Altus Midstream Company completed a previously announced transaction to create a pure-play, Permian Basin to Gulf Coast midstream C-corporation. Upon close, Altus Midstream Company contributed approximately $628 million of cash, net of transaction expenses, into its then wholly-owned subsidiary Altus Midstream LP. Apache contributed its Alpine High midstream assets into Altus Midstream LP in exchange for an approximate 79 percent ownership interest in Altus Midstream Company and Altus Midstream LP (collectively, Altus). Apache fully consolidates the assets and liabilities of Altus. Proceeds from the Altus transaction were used to fund development of the Altus assets.

Also during 2019 and 2018, Apache recorded proceeds from divestitures totaling $718 million and $138 million, respectively. For information regarding the Company's acquisitions and divestitures, please see Note 2—Acquisitions and Divestitures in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K.

Fixed-Rate Debt Borrowings

On June 19, 2019, Apache closed offerings of $1.0 billion in aggregate principal amount of senior unsecured notes, comprised of $600 million in aggregate principal amount of 4.250% notes due January 15, 2030 (2030 notes) and $400 million in aggregate principal amount of 5.350% notes due July 1, 2049 (2049 notes). The notes are redeemable at any time, in whole or in part, at Apache's option, subject to a make-whole premium. The aggregate net proceeds of $989 million from the sale of the notes, comprised of net proceeds from the sale of the 2030 notes of $595 million and the 2049 notes of $394 million, were used to purchase certain outstanding notes in cash tender offers and for general corporate purposes.

In August 2018, Apache closed an offering of $1.0 billion in aggregate principal amount of senior unsecured 4.375% notes due October 15, 2028. The notes are redeemable at any time, in whole or in part, at Apache's option, subject to a make-whole premium. The net proceeds from the sale of the notes of $992 million were used to purchase certain outstanding notes in cash tender offers, repay notes that matured in September 2018, and for general corporate purposes.

Proceeds from Altus Credit Facility

The construction of Altus' gathering and processing assets and the exercise of its options for equity interests in four Permian Basin long-haul pipeline entities required capital expenditures in excess of Altus' cash on hand and operational cash flows. As of December 31, 2019, $396 million in borrowings were outstanding under Altus Midstream LP's revolving credit facility. The Company anticipates that Altus Midstream LP will continue to utilize revolving credit facility borrowing capacity in addition to Altus' cash flow from operating activities to fund its future capital needs.

Redeemable Noncontrolling Interest - Altus Preferred Unit Limited Partners

On June 12, 2019, Altus Midstream LP issued and sold Series A Cumulative Redeemable Preferred Units for an aggregate issue price of $625 million in a private offering. Altus Midstream LP received approximately $611 million in cash proceeds from the sale after deducting transaction costs and discounts to certain purchasers. These proceeds were used to fund capital contributions related to Altus' equity interests in certain of the Permian Basin long-haul pipeline entities and repayment of outstanding principal on its revolving credit facility (discussed above). For more information, please refer to Note 13—Redeemable Noncontrolling Interest - Altus in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K.

Uses of Cash and Cash Equivalents

Additions to Oil & Gas Property

During 2019 and 2018, exploration and development (E&D) cash expenditures totaled $2.6 billion and $3.2 billion, respectively. Expenditures were allocated across the Company's portfolio at levels commensurate with cash from operating activities, with a majority of the expenditures being allocated to Apache's Permian region.

Additions to Altus GPT Facilities

Apache's cash expenditures in GPT facilities totaled $327 million and $581 million during 2019 and 2018, respectively, nearly all comprising midstream infrastructure expenditures incurred by Altus, which were substantially completed as of December 31, 2019.

Leasehold and Property Acquisitions

Apache completed leasehold and property acquisitions for cash totaling $40 million and $133 million in 2019 and 2018, respectively. Acquisition investments continued to primarily focus on adding new leasehold positions to the Permian region.

Altus Equity Method Interests

Altus made acquisitions and contributions of $1.2 billion and $91 million in 2019 and 2018, respectively, for equity interests in four Permian Basin long-haul pipeline entities and received distributions of $25 million in 2019, which are included in net cash provided by operating activities. The Company received no distributions in 2018. For more information regarding the Company's equity method interests, please see Note 6—Equity Method Interests in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K.

Payments on Fixed-Rate Debt

On June 21, 2019, the Company closed cash tender offers for certain outstanding notes. Apache accepted for purchase $932 million aggregate principal amount of notes for approximately $1.0 billion, which included principal, the net premium to par, and an early tender premium totaling $28 million, as well as accrued and unpaid interest of $14 million. The Company recorded a net loss of $75 million on extinguishment of debt, including $7 million of unamortized debt issuance costs and discounts, in connection with the note purchases. Additionally, on July 1, 2019, Apache's 7.625% senior notes in original principal amount of $150 million matured and were repaid.

In August 2018, the Company closed cash tender offers for certain outstanding notes. Apache accepted for purchase $731 million aggregate principal amount of notes for approximately $828 million, which included principal, the discount to par, and an early tender premium totaling $820 million, as well as accrued and unpaid interest of $8 million. The Company recorded a net loss of $94 million on extinguishment of debt, including $5 million of unamortized debt issuance costs and discount, in connection with the note purchases. Apache also made repayments of current year note maturities totaling $550 million during 2018.

Dividends

The Company has paid cash dividends on its common stock for 54 consecutive years through 2019. Future dividend payments will depend on the Company's level of earnings, financial requirements, and other relevant factors. Common stock dividends paid during 2019 totaled $376 million, compared with $382 million in 2018.

Egypt Noncontrolling Interest

Sinopec International Petroleum Exploration and Production Corporation (Sinopec) holds a one-third minority participation interest in Apache's oil and gas business in Egypt. Apache made cash distributions totaling $305 million and $345 million to Sinopec in 2019 and 2018, respectively.

Shares Repurchased

In 2013 and 2014, Apache's Board of Directors authorized the purchase of up to 40 million shares of the Company's common stock. Shares may be purchased either in the open market or through privately negotiated transactions. The Company initiated the buyback program on June 10, 2013, and through December 31, 2019, had repurchased a total of 40 million shares at an average price of $79.18 per share. During 2018, the Company repurchased a total of 7.8 million shares at an average price of $38.99 per share. During the fourth quarter of 2018, the Company's Board of Directors authorized the purchase of up to 40 million additional shares of the Company's common stock. The Company is not obligated to acquire any specific number of shares and did not purchase any shares during 2019.

Liquidity

	At December 31,	
	2019	**2018**
	(In millions)	
Cash and cash equivalents	$ 247	$ 714
Total debt	8,566	8,244
Equity	4,465	8,812
Available committed borrowing capacity	4,000	3,857
Available committed borrowing capacity - Altus	404	450

Cash and Cash Equivalents

At December 31, 2019, Apache had $247 million in cash and cash equivalents, of which approximately $6 million was held by Altus. The majority of the cash is invested in highly liquid, investment-grade instruments with maturities of three months or less at the time of purchase.

Debt

At December 31, 2019, outstanding debt, which consisted of notes, debentures, subsidiary credit facility borrowings, and finance lease obligations, totaled $8.6 billion, of which approximately $406 million was related to Altus. Current debt as of December 31, 2019, included $11 million for finance lease obligations, of which $10 million was related to Altus.

Available Credit Facilities

In March 2018, the Company entered into a revolving credit facility with commitments totaling $4.0 billion. In March 2019, the term of this facility was extended by one year to March 2024 (subject to Apache's remaining one-year extension option) pursuant to Apache's exercise of an extension option. The Company can increase commitments up to $5.0 billion by adding new lenders or obtaining the consent of any increasing existing lenders. The facility includes a letter of credit subfacility of up to $3.0 billion, of which $2.08 billion was committed as of December 31, 2019. The facility is for general corporate purposes and committed borrowing capacity fully supports Apache's commercial paper program. Letters of credit are available for security needs, including in respect of abandonment obligations assumed in various North Sea acquisitions. As of December 31, 2019, there were no borrowings or letters of credit outstanding under this facility.

At Apache's option, the interest rate per annum for borrowings under the 2018 facility is either a base rate, as defined, plus a margin, or the London Inter-bank Offered Rate (LIBOR), plus a margin. Apache also pays quarterly a facility fee at a per annum rate on total commitments. The margins and the facility fee vary based upon Apache's senior long-term debt rating. At December 31, 2019, the base rate margin was 0.075 percent, the LIBOR margin was 1.075 percent, and the facility fee was 0.175 percent. A commission is payable quarterly to lenders on the face amount of each outstanding letter of credit at a per annum rate equal to the LIBOR margin then in effect. Customary letter of credit fronting fees and other charges are payable to issuing banks.

The financial covenants of the 2018 credit facility require Apache to maintain an adjusted debt-to-capital ratio of not greater than 60 percent at the end of any fiscal quarter. For purposes of this calculation, capital excludes the effects of non-cash write-downs, impairments, and related charges occurring after June 30, 2015. At December 31, 2019, Apache's debt-to-capital ratio as calculated under the credit facility was 31 percent.

The 2018 facility's negative covenants restrict the ability of Apache and its subsidiaries to create liens securing debt on their hydrocarbon-related assets, with exceptions for liens typically arising in the oil and gas industry; liens securing debt incurred to finance the acquisition, construction, improvement, or capital lease of assets, provided that such debt, when incurred, does not exceed the subject purchase price and costs, as applicable, and related expenses; liens on subsidiary assets located outside of the United States and Canada; and liens arising as a matter of law, such as tax and mechanics' liens. Apache also may incur liens on assets if debt secured thereby does not exceed 15 percent of Apache's consolidated net tangible assets, or approximately $2.4 billion as of December 31, 2019. Negative covenants also restrict Apache's ability to merge with another entity unless it is the surviving entity, dispose of substantially all of its assets, and guarantee debt of non-consolidated entities in excess of the stated threshold.

In November 2018, Altus Midstream LP entered into a revolving credit facility for general corporate purposes that matures in November 2023 (subject to Altus Midstream LP's two, one-year extension options). The agreement for this facility, as amended, provides aggregate commitments from a syndicate of banks of $800 million. All aggregate commitments include a letter of credit subfacility of up to $100 million and a swingline loan subfacility of up to $100 million. Altus Midstream LP may increase commitments up to an aggregate $1.5 billion by adding new lenders or obtaining the consent of any increasing existing lenders. As of December 31, 2019, there were $396 million of borrowings and no letters of credit outstanding under this facility.

The agreement for Altus Midstream LP's credit facility, as amended, restricts distributions in respect of capital to Apache and other unit holders in certain circumstances. Unless the Leverage Ratio is less than or equal to 4.00:1.00, the agreement limits such distributions to $30 million per calendar year until either (i) the consolidated net income of Altus Midstream LP and its restricted subsidiaries, as adjusted pursuant to the agreement, for three consecutive calendar months equals or exceeds $350.0 million on an annualized basis or (ii) Altus Midstream LP has a specified senior long-term debt rating; in addition, before the occurrence of one of those two events, the Leverage Ratio must be less than or equal to 5.00:1.00. In no event can any distribution be made that would, after giving effect to it on a pro forma basis, result in a Leverage Ratio greater than (i) 5.00:1.00 or (ii) for a specified period after a qualifying acquisition, 5.50:1.00. The Leverage Ratio is the ratio of (1) the consolidated indebtedness of

Altus Midstream LP and its restricted subsidiaries to (2) EBITDA (as defined in the agreement) of Altus Midstream LP and its restricted subsidiaries for the 12-month period ending immediately before the determination date. The Leverage Ratio as of December 31, 2019 was less than 4.00:1.00.

The terms of Altus Midstream LP's Series A Cumulative Redeemable Preferred Units also contain certain restrictions on distributions in respect of capital, including the common units held by Apache and any other units that rank junior to the Preferred Units with respect to distributions or distributions upon liquidation. Refer to Note 13—Redeemable Noncontrolling Interest - Altus for further information. In addition, the amount of any cash distributions to Altus Midstream LP by any entity in which it has an interest accounted for by the equity method is subject to such entity's compliance with the terms of any debt or other agreements by which it may be bound, which in turn may impact the amount of funds available for distribution by Altus Midstream LP to its partners.

The Altus Midstream LP credit facility is unsecured and is not guaranteed by Apache or any of Apache's other subsidiaries.

There are no clauses in either the agreement for Apache's 2018 credit facility or for Altus Midstream LP's 2018 credit facility that permit the lenders to accelerate payments or refuse to lend based on unspecified material adverse changes. These agreements do not have drawdown restrictions or prepayment obligations in the event of a decline in credit ratings. However, each agreement allows the lenders to accelerate payment maturity and terminate lending and issuance commitments for nonpayment and other breaches, and if a borrower or any of its subsidiaries defaults on other indebtedness in excess of the stated threshold, is insolvent, or has any unpaid, non-appealable judgment against it for payment of money in excess of the stated threshold. Lenders may also accelerate payment maturity and terminate lending and issuance commitments under the applicable agreement if Apache or Altus Midstream LP, as applicable, undergoes a specified change in control or any borrower has specified pension plan liabilities in excess of the stated threshold. Each of Apache and Altus Midstream LP was in compliance with the terms of its 2018 credit facility as of December 31, 2019.

There is no assurance that the financial condition of banks with lending commitments to Apache or Altus Midstream LP will not deteriorate. We closely monitor the ratings of the banks in our bank groups. Having large bank groups allows the Company to mitigate the potential impact of any bank's failure to honor its lending commitment.

Commercial Paper Program

As of December 31, 2019, Apache has available a $3.5 billion commercial paper program which, subject to market availability, facilitates Apache borrowing funds for up to 270 days at competitive interest rates. The commercial paper program is fully supported by available borrowing capacity under Apache's 2018 $4.0 billion committed credit facility. If Apache is unable to issue commercial paper following a significant credit downgrade or dislocation in the market, Apache's 2018 committed credit facility, which matures in 2024, is available as a 100 percent backstop. As of December 31, 2019, Apache had no borrowings under its commercial paper program.

Off-Balance Sheet Arrangements

Apache enters into customary agreements in the oil and gas industry for drilling rig commitments, firm transportation agreements, and other obligations as described below in "Contractual Obligations" in this Item 7. Other than the off-balance sheet arrangements described herein, Apache does not have any off-balance sheet arrangements with unconsolidated entities that are reasonably likely to materially affect our liquidity or capital resource positions.

Contractual Obligations

The following table summarizes the Company's contractual obligations as of December 31, 2019. For additional information regarding these obligations, please see Note 9—Debt and Financing Costs and Note 11—Commitments and Contingencies in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K.

	On-Balance Sheet					Off-Balance Sheet	
Obligations by Period	**Debt, at Face Value**	**Altus Credit Facility**[1]	**Interest Payments**	**Finance Leases**[2]	**Operating Leases**[3]	**Purchase Obligations**[4][5]	**Total**[6]
				(In millions)			
2020	$ —	$ —	$ 401	$ 13	$ 165	$ 152	$ 731
2021	293	—	395	3	82	191	964
2022	463	—	383	3	50	181	1,080
2023	181	396	373	3	33	213	1,199
2024	—	—	370	3	27	195	595
Thereafter	7,280	—	5,339	37	32	910	13,598
Total	$ 8,217	$ 396	$ 7,261	$ 62	$ 389	$ 1,842	$ 18,167

(1) Includes outstanding principal amounts at December 31, 2019. This table does not include future commitment fees, interest expense, or other fees on Altus' credit facility because they are floating rate instruments, and management cannot determine with accuracy the timing of future loan advances, repayments, or future interest rates to be charged.

(2) Amounts represent the Company's undiscounted finance lease obligation related to physical power generators being leased on a one-year term with the right to purchase and a separate lease for the Company's Midland, Texas regional office building.

(3) Amounts represent future lease payments associated with oil and gas operations inclusive of amounts billable to partners and other working interest owners. Such payments may be capitalized as a component of oil and gas properties and subsequently depreciated, impaired, or written off as exploration expense.

(4) Amounts represent any agreements to purchase goods or services that are enforceable and legally binding and that specify all significant terms. These include minimum commitments associated with take-or-pay contracts, NGL processing agreements, drilling work program commitments, and agreements to secure capacity rights on third-party pipelines. Amounts exclude certain product purchase obligations related to marketing and trading activities for which there are no minimum purchase requirements or the amounts are not fixed or determinable. Total costs incurred under take-or-pay and throughput obligations were $111 million, $132 million, and $134 million for 2019, 2018, and 2017, respectively.

(5) Subsequent to December 31, 2019, Apache entered into an agreement to assign approximately $171 million of its firm transportation obligations beginning in March 2020.

(6) This table does not include the Company's liability for dismantlement, abandonment, and restoration costs of oil and gas properties or pension or postretirement benefit obligations. For additional information regarding these liabilities, please see Notes 8 and 12, respectively, in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K.

As further described above under "Capital and Operational Outlook," Altus Midstream LP and/or its subsidiaries have exercised four of the five options to acquire equity interests in third-party joint venture pipelines. Upon exercising each individual option, Altus Midstream LP and/or its subsidiaries may be required to fund future capital expenditures for its equity interest share in the development of the applicable pipeline. EPIC is installing additional operational storage capacity and completing an additional dock, and PHP is still under construction. The Company estimates that Altus, based on its equity interests in each pipeline, will incur approximately $300 million of additional capital contributions associated with the remaining construction costs in these joint venture pipelines during 2020.

Apache is also subject to various contingent obligations that become payable only if certain events or rulings were to occur. The inherent uncertainty surrounding the timing of and monetary impact associated with these events or rulings prevents any meaningful accurate measurement, which is necessary to assess settlements resulting from litigation. Apache's management believes that it has adequately reserved for its contingent obligations, including approximately $2 million for environmental remediation and approximately $21 million for various contingent legal liabilities. For a detailed discussion of the Company's environmental and legal contingencies, please see Note 11—Commitments and Contingencies in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K.

In addition, the Company has potential exposure to future obligations related to divested properties. Apache has divested various leases, wells, and facilities located in the Gulf of Mexico where the purchasers typically assume all obligations to plug, abandon, and decommission the associated wells, structures, and facilities acquired. One or more of the counterparties in these transactions could, either as a result of the severe decline in oil and natural gas prices or other factors related to the historical or future operations of their respective businesses, face financial problems that may have a significant impact on their solvency and ability to continue as a going concern. If a purchaser of our Gulf of Mexico assets becomes the subject of a case or proceeding under relevant insolvency laws or otherwise fails to perform required abandonment obligations, Apache could be required to perform such actions under applicable federal laws and regulations. In such event, Apache may be forced to use available cash to cover the costs of such liabilities and obligations should they arise.

With respect to oil and gas operations in the Gulf of Mexico, the Bureau of Ocean Energy Management (BOEM) has issued a Notice to Lessees (NTL No. 2016-N01) significantly revising the obligations of companies operating in the Gulf of Mexico to provide supplemental assurances of performance with respect to plugging, abandonment, and decommissioning obligations associated with wells, platforms, structures, and facilities located upon or used in connection with such companies' oil and gas leases. While requirements under the NTL have not yet been fully implemented by BOEM, the NTL will likely require that Apache provide additional security to BOEM with respect to plugging, abandonment, and decommissioning obligations relating to Apache's current ownership interests in various Gulf of Mexico leases. We are working closely with BOEM to make arrangements for the provision of such additional required security, if such security becomes necessary under the NTL. Additionally, we are not able to predict the effect that these changes might have on counterparties to which Apache has sold Gulf of Mexico assets or with whom Apache has joint ownership. Such changes could cause the bonding obligations of such parties to increase substantially, thereby causing a significant impact on the counterparties' solvency and ability to continue as a going concern.

Insurance Program

We maintain insurance policies that include coverage for physical damage to our assets, general liabilities, workers' compensation, employers' liability, sudden and accidental pollution, and other risks. Our insurance coverage is subject to deductibles or retentions that we must satisfy prior to recovering on insurance. Additionally, our insurance is subject to policy exclusions and limitations. There is no assurance that insurance will adequately protect us against liability from all potential consequences and damages. Further we do not have coverage in place for a variety of other risks including Gulf of Mexico named windstorm and business interruption.

Our current insurance policies covering physical damage to our assets provide up to $1 billion in coverage per occurrence. These policies also provide sudden and accidental pollution coverage.

Our current insurance policies covering general liabilities provide $500 million in coverage, scaled to Apache's interest. Our service agreements, including drilling contracts, generally indemnify Apache for injuries and death of the service provider's employees as well as subcontractors hired by the service provider.

Apache purchases multi-year political risk insurance from the Overseas Private Investment Corporation (OPIC) and highly-rated insurers covering a portion of its investments in Egypt for losses arising from confiscation, nationalization, and expropriation risks. The Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC, an agency of the Islamic Development Bank) reinsures OPIC. In the aggregate, these insurance policies provide up to $750 million of coverage to Apache, subject to policy terms and conditions and a retention of approximately $1 billion.

Apache has an additional insurance policy with OPIC, which, subject to policy terms and conditions, provides up to $300 million of coverage through 2024 for losses arising from (1) non-payment by EGPC of arbitral awards covering amounts owed Apache on past due invoices and (2) expropriation of exportable petroleum in the event that actions taken by the government of Egypt prevent Apache from exporting our share of production. The Multilateral Investment Guarantee Agency (MIGA), a member of the World Bank Group, provides $150 million in reinsurance to OPIC.

Future insurance coverage for our industry could increase in cost and may include higher deductibles or retentions. In addition, some forms of insurance may become unavailable or unavailable on terms economically acceptable.

Critical Accounting Policies and Estimates

Apache prepares its financial statements and the accompanying notes in conformity with accounting principles generally accepted in the United States of America, which require management to make estimates and assumptions about future events that affect the reported amounts in the financial statements and the accompanying notes. Apache identifies certain accounting policies as critical based on, among other things, their impact on the portrayal of Apache's financial condition, results of operations, or liquidity and the degree of difficulty, subjectivity, and complexity in their deployment. Critical accounting policies cover accounting matters that are inherently uncertain because the future resolution of such matters is unknown. Management routinely discusses the development, selection, and disclosure of each of the critical accounting policies. The following is a discussion of Apache's most critical accounting policies.

Reserves Estimates

Proved oil and gas reserves are the estimated quantities of natural gas, crude oil, condensate, and NGLs that geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing conditions, operating conditions, and government regulations.

Proved undeveloped reserves include those reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion. Undeveloped reserves may be classified as proved reserves on undrilled acreage directly offsetting development areas that are reasonably certain of production when drilled, or where reliable technology provides reasonable certainty of economic producibility. Undrilled locations may be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless specific circumstances justify a longer time.

Despite the inherent imprecision in these engineering estimates, our reserves are used throughout our financial statements. For example, since we use the units-of-production method to amortize our oil and gas properties, the quantity of reserves could significantly impact our DD&A expense. A material adverse change in the estimated volumes of reserves could result in property impairments. Finally, these reserves are the basis for our supplemental oil and gas disclosures.

Reserves are calculated using an unweighted arithmetic average of commodity prices in effect on the first day of each of the previous 12 months, held flat for the life of the production, except where prices are defined by contractual arrangements. Operating costs, production and ad valorem taxes and future development costs are based on current costs with no escalation.

Apache has elected not to disclose probable and possible reserves or reserve estimates in this filing.

Oil and Gas Exploration Costs

Apache accounts for its exploration and production activities using the successful efforts method of accounting. Costs of acquiring unproved and proved oil and gas leasehold acreage are capitalized. Costs of drilling and equipping productive wells, including development dry holes, and related production facilities are also capitalized. Oil and gas exploration costs, other than the costs of drilling exploratory wells, are charged to expense as incurred. Costs associated with drilling an exploratory well are initially capitalized, or suspended, pending a determination as to whether proved reserves have been found. On a quarterly basis, management reviews the status of all suspended exploratory well costs in light of ongoing exploration activities and determines whether the Company is making sufficient progress in its ongoing exploration and appraisal efforts or, in the case of discoveries requiring government sanctioning, whether development negotiations are underway and proceeding as planned. If management determines that future appraisal drilling or development activities are unlikely to occur, associated suspended exploratory well costs are recorded as dry hole expense and reported in exploration expense in the statement of consolidated operations. Otherwise, the costs of exploratory wells remain capitalized.

Long-Lived Asset Impairments

Long-lived assets used in operations, including proved oil and gas properties and GPT assets, are assessed for impairment whenever changes in facts and circumstances indicate a possible significant deterioration in future cash flows expected to be generated by an asset. Individual assets are grouped for impairment purposes based on a judgmental assessment of the lowest level for which there are identifiable cash flows that are largely independent of the cash flows of other groups of assets. If there is an indication that the carrying amount of an asset group may not be recovered, the asset is assessed by management through an established process in which changes to significant assumptions such as prices, volumes, and future development plans are reviewed. If, upon review, the sum of the undiscounted pre-tax cash flows is less than the carrying value of the asset group, the carrying value is written down to estimated fair value. Because there usually is a lack of quoted market prices for long-lived assets, the fair value of impaired assets is assessed by management using the income approach.

Under the income approach, the fair value of each asset group is estimated based on the present value of expected future cash flows. The income approach is dependent on a number of factors including estimates of forecasted revenue and operating costs, proved reserves, the success of future exploration for and development of unproved reserves, expected throughput volumes for GPT assets, discount rates, and other variables. Key assumptions used in developing a discounted cash flow model described above include estimated quantities of crude oil and natural gas reserves; estimates of market prices considering forward commodity price curves as of the measurement date; and estimates of operating, administrative, and capital costs adjusted for inflation. We discount the resulting future cash flows using a discount rate believed to be consistent with those applied by market participants.

To assess the reasonableness of our fair value estimate, when available we use a market approach to compare the fair value to similar assets. This requires management to make certain judgments about the selection of comparable assets, recent comparable asset transactions, and transaction premiums.

Although we base the fair value estimate of each asset group on assumptions we believe to be reasonable, those assumptions are inherently unpredictable and uncertain, and actual results could differ from the estimate. Negative revisions of estimated reserves quantities, increases in future cost estimates, divestiture of a significant component of the asset group, or sustained decreases in crude oil or natural gas prices could lead to a reduction in expected future cash flows and possibly an additional impairment of long-lived assets in future periods.

Over the past several years, the Company has experienced substantial volatility in commodity prices, which impacted our future development plans and operating cash flows. As such, we recorded impairments of certain proved oil and gas properties and gathering, processing, and transmission facilities in 2019 and 2018. For discussion of these impairments, see “Fair Value Measurements” of Note 1—Summary of Significant Accounting Policies in the Notes to Consolidated Financial Statements.

Asset Retirement Obligation (ARO)

The Company has significant obligations to remove tangible equipment and restore land or seabed at the end of oil and gas production operations. Apache’s removal and restoration obligations are primarily associated with plugging and abandoning wells and removing and disposing of offshore oil and gas platforms in the North Sea and Gulf of Mexico. Estimating the future restoration and removal costs is difficult and requires management to make estimates and judgments. Asset removal technologies and costs are constantly changing, as are regulatory, political, environmental, safety, and public relations considerations.

ARO associated with retiring tangible long-lived assets is recognized as a liability in the period in which the legal obligation is incurred and becomes determinable. The liability is offset by a corresponding increase in the underlying asset. The ARO liability reflects the estimated present value of the amount of dismantlement, removal, site reclamation, and similar activities associated with Apache’s oil and gas properties and other long-lived assets. The Company utilizes current retirement costs to estimate the expected cash outflows for retirement obligations. Inherent in the present value calculation are numerous assumptions and judgments including the ultimate settlement amounts, inflation factors, credit-adjusted discount rates, timing of settlement, and changes in the legal, regulatory, environmental, and political environments. Accretion expense is recognized over time as the discounted liability is accreted to its expected settlement value.

Income Taxes

Our oil and gas exploration and production operations are subject to taxation on income in numerous jurisdictions worldwide. We record deferred tax assets and liabilities to account for the expected future tax consequences of events that have been recognized in our financial statements and our tax returns. We routinely assess the ability to realize our deferred tax assets. If we conclude that it is more likely than not that some portion or all of the deferred tax assets will not be realized under accounting standards, the tax asset would be reduced by a valuation allowance. Numerous judgments and assumptions are inherent in the determination of future taxable income, including factors such as future operating conditions (particularly as related to prevailing oil and gas prices).

The Company regularly assesses and, if required, establishes accruals for uncertain tax positions that could result from assessments of additional tax by taxing jurisdictions in countries where the Company operates. The Company recognizes a tax benefit from an uncertain tax position when it is more likely than not that the position will be sustained upon examination, based on the technical merits of the position. These accruals for uncertain tax positions are subject to a significant amount of judgment and are reviewed and adjusted on a periodic basis in light of changing facts and circumstances considering the progress of ongoing tax audits, case law, and any new legislation. The Company believes that its accruals for uncertain tax positions are adequate in relation to the potential for any additional tax assessments.

ITEM 7A. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

The primary objective of the following information is to provide forward-looking quantitative and qualitative information about our exposure to market risk. The term market risk relates to the risk of loss arising from adverse changes in oil, gas, and NGL prices, interest rates, or foreign currency and adverse governmental actions. The disclosures are not meant to be precise indicators of expected future losses, but rather indicators of reasonably possible losses. The forward-looking information provides indicators of how we view and manage our ongoing market risk exposures.

Commodity Price Risk

The Company's revenues, earnings, cash flow, capital investments and, ultimately, future rate of growth are highly dependent on the prices the Company receives for its crude oil, natural gas and NGLs, which have historically been very volatile because of unpredictable events such as economic growth or retraction, weather, political climate, and global supply and demand. The Company's average crude oil realizations have decreased 8 percent to $60.05 per barrel in 2019 from $65.30 per barrel in 2018. The Company's average natural gas price realizations have decreased 27 percent to $1.90 per Mcf in 2019 from $2.61 per Mcf in 2018. The Company's average NGL realizations have decreased 41 percent to $15.74 per barrel in 2019 from $26.87 per barrel in 2018. Based on average daily production for 2019, a $1.00 per barrel change in the weighted average realized oil price would have increased or decreased revenues for the year by approximately $87 million, a $0.10 per Mcf change in the weighted average realized price of natural gas would have increased or decreased revenues for the year by approximately $36 million, and a $1.00 per barrel change in the weighted average realized NGL price would have increased or decreased revenues for the year by approximately $26 million.

Apache periodically enters into derivative positions on a portion of its projected oil and natural gas production through a variety of financial and physical arrangements intended to manage fluctuations in cash flows resulting from changes in commodity prices. Such derivative positions may include the use of futures contracts, swaps, and/or options. Apache does not hold or issue derivative instruments for trading purposes. As of December 31, 2019, the Company did not have any commodity derivative positions. See Note 4—Derivative Instruments and Hedging Activities in the Notes to Consolidated Financial Statements set forth in Part IV, Item 15 of this Form 10-K for notional volumes and terms with the Company's derivative contracts.

Interest Rate Risk

At December 31, 2019, Apache had approximately $8.2 billion net carrying value of notes and debentures outstanding, all of which was fixed-rate debt, with a weighted average interest rate of 4.88 percent. Although near-term changes in interest rates may affect the fair value of Apache's fixed-rate debt, they do not expose the Company to the risk of earnings or cash flow loss associated with that debt. Apache is also exposed to interest rate risk related to its interest-bearing cash and cash equivalents balances and amounts outstanding under its commercial paper program and credit facilities. As of December 31, 2019, the Company's cash and cash equivalents totaled approximately $247 million, approximately 73 percent of which was invested in money market funds and short-term investments with major financial institutions. A change in the interest rate applicable to the Company's short-term investments and credit facility borrowings would have a de minimis impact on earnings and cash flows but could impact interest costs associated with future debt issuances or any future borrowings under its commercial paper program, revolving credit facilities, and money market lines of credit.

Foreign Currency Exchange Rate Risk

The Company's cash activities relating to certain international operations is based on the U.S. dollar equivalent of cash flows measured in foreign currencies. The Company's North Sea production is sold under U.S. dollar contracts, and the majority of costs incurred are paid in British pounds. In Egypt, substantially all oil and gas production is sold under U.S. dollar contracts, and the majority of the costs incurred are denominated in U.S. dollars. Transactions denominated in British pounds are converted to U.S. dollar equivalents based on the average exchange rates during the period.

Foreign currency gains and losses also arise when monetary assets and monetary liabilities denominated in foreign currencies are translated at the end of each month. Currency gains and losses are included as either a component of "Other" under "Revenues and Other" or, as is the case when the Company re-measures its foreign tax liabilities, as a component of the Company's provision for income tax expense on the statement of consolidated operations. A foreign currency net gain or loss of $6 million would result from a 10 percent weakening or strengthening, respectively, in the British pound as of December 31, 2019.

The Company is subject to increased foreign currency risk associated with the effects of the U.K.'s withdrawal from the European Union. Apache has entered into foreign exchange contracts in order to minimize the impact of fluctuating exchange rates for the British pound on the Company's operating expenses. As of December 31, 2019, the Company has outstanding foreign exchange contracts with a total notional amount of £162 million. A 10 percent strengthening of the British pound against the U.S. dollar would result in a foreign currency net gain of $15 million, while a 10 percent weakening of the British pound against the U.S. dollar would result in a loss of $11 million.

ITEM 8. *FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA*

The financial statements and supplementary financial information required to be filed under this Item 8 are presented on pages F-1 through F-65 in Part IV, Item 15 of this Form 10-K and are incorporated herein by reference.

ITEM 9. *CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE*

The financial statements for the fiscal years ended December 31, 2019, 2018, and 2017, included in this report, have been audited by Ernst & Young LLP, independent registered public accounting firm, as stated in their audit report appearing herein. There have been no changes in or disagreements with the accountants during the periods presented.

ITEM 9A. *CONTROLS AND PROCEDURES*

Disclosure Controls and Procedures

John J. Christmann IV, the Company’s Chief Executive Officer and President, in his capacity as principal executive officer, and Stephen J. Riney, the Company’s Executive Vice President and Chief Financial Officer, in his capacity as principal financial officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2019, the end of the period covered by this report. Based on that evaluation and as of the date of that evaluation, these officers concluded that the Company’s disclosure controls and procedures were effective, providing effective means to ensure that the information we are required to disclose under applicable laws and regulations is recorded, processed, summarized, and reported within the time periods specified in the Commission’s rules and forms and accumulated and communicated to our management, including our principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure. We made no changes in internal controls over financial reporting during the quarter ending December 31, 2019, that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

We periodically review the design and effectiveness of our disclosure controls, including compliance with various laws and regulations that apply to our operations both inside and outside the United States. We make modifications to improve the design and effectiveness of our disclosure controls and may take other corrective action, if our reviews identify deficiencies or weaknesses in our controls.

Management’s Annual Report on Internal Control Over Financial Reporting; Attestation Report of the Registered Public Accounting Firm

The management report called for by Item 308(a) of Regulation S-K is incorporated herein by reference to the “Report of Management on Internal Control Over Financial Reporting,” included on Page F-1 in Part IV, Item 15 of this Form 10-K.

The independent auditors attestation report called for by Item 308(b) of Regulation S-K is incorporated herein by reference to the “Report of Independent Registered Public Accounting Firm,” included on Page F-3 through F-5 in Part IV, Item 15 of this Form 10-K.

Changes in Internal Control over Financial Reporting

There was no change in our internal controls over financial reporting during the quarter ending December 31, 2019, that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

ITEM 9B. *OTHER INFORMATION*

None.

PART III

ITEM 10. *DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE*

The information set forth under the captions “Nominees for Election as Directors,” “Continuing Directors,” “Information About Our Executive Officers,” and “Securities Ownership and Principal Holders” in the proxy statement relating to the Company’s 2020 annual meeting of shareholders (the Proxy Statement) is incorporated herein by reference.

Code of Business Conduct

Pursuant to Rule 303A.10 of the NYSE and Rule 5610 of the Nasdaq, we are required to adopt a code of business conduct and ethics for our directors, officers, and employees. In February 2004, the Board of Directors adopted the Code of Business Conduct and Ethics (Code of Conduct) and revised it in September 2019. The revised Code of Conduct also meets the requirements of a code of ethics under Item 406 of Regulation S-K. You can access the Company’s Code of Conduct on the Governance page of the Company’s website at www.apachecorp.com. Any shareholder who so requests may obtain a printed copy of the Code of Conduct by submitting a request to the Company’s corporate secretary at the address on the cover of this Form 10-K. Changes in and waivers to the Code of Conduct for the Company’s directors, chief executive officer and certain senior financial officers will be posted on the Company’s website within four business days and maintained for at least 12 months. Information on our website or any other website is not incorporated by reference into, and does not constitute a part of, this Annual Report on Form 10-K.

ITEM 11. *EXECUTIVE COMPENSATION*

The information set forth under the captions “Compensation Discussion and Analysis,” “Summary Compensation Table,” “Grants of Plan Based Awards Table,” “Outstanding Equity Awards at Fiscal Year-End Table,” “Option Exercises and Stock Vested Table,” “Non-Qualified Deferred Compensation Table,” “Potential Payments Upon Termination or Change in Control” and “Director Compensation Table” in the Proxy Statement is incorporated herein by reference.

ITEM 12. *SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS*

The information set forth under the captions “Securities Ownership and Principal Holders” and “Equity Compensation Plan Information” in the Proxy Statement is incorporated herein by reference.

ITEM 13. *CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE*

The information set forth under the captions “Certain Business Relationships and Transactions” and “Director Independence” in the Proxy Statement is incorporated herein by reference.

ITEM 14. *PRINCIPAL ACCOUNTING FEES AND SERVICES*

The information set forth under the caption “Ratification of Appointment of Independent Auditors” in the Proxy Statement is incorporated herein by reference.

PART IV

ITEM 15. ***EXHIBITS, FINANCIAL STATEMENT SCHEDULES***

(a) Documents included in this report:

1. Financial Statements

2. Financial Statement Schedules

Financial statement schedules have been omitted because they are either not required, not applicable or the information required to be presented is included in the Company's financial statements and related notes.

3. Exhibits

EXHIBIT NO.		DESCRIPTION
3.1	–	Restated Certificate of Incorporation of Registrant, dated September 19, 2013, as filed with the Secretary of State of Delaware on September 19, 2013 (incorporated by reference to Exhibit 3.2 to Registrant's Current Report on Form 8-K filed September 20, 2013, SEC File No. 001-4300).
3.2	–	Certificate of Amendment of Restated Certificate of Incorporation of Registrant, dated May 14, 2015, as filed with the Secretary of State of Delaware on May 14, 2015 (incorporated by reference to Exhibit 3.2 to Registrant's Current Report on Form 8-K filed May 20, 2015, SEC File No. 001-04300).
3.3	–	Bylaws of Registrant, as amended May 11, 2017, (incorporated by reference to Exhibit 3.1 to Registrant's Current Report on Form 8-K filed May 16, 2017, SEC File No. 001-4300).
4.1	–	Form of Certificate for Registrant's Common Stock (incorporated by reference to Exhibit 4.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, SEC File No. 001-4300).
4.2	–	Form of 3.625% Notes due 2021 (incorporated by reference to Exhibit 4.1 to Registrant's Current Report on Form 8-K, dated November 30, 2010, filed on December 3, 2010, SEC File No. 001-4300).
4.3	–	Form of 5.250% Notes due 2042 (incorporated by reference to Exhibit 4.2 to Registrant's Current Report on Form 8-K, dated November 30, 2010, filed on December 3, 2010, SEC File No. 001-4300).
4.4	–	Form of 5.100% Notes due 2040 (incorporated by reference to Exhibit 4.1 to Registrant's Current Report on Form 8-K, dated August 17, 2010, filed on August 20, 2010, SEC File No. 001-4300).
4.5	–	Form of 3.25% Note due 2022 (incorporated by reference to Exhibit 4.2 to Registrant's Current Report on Form 8-K, dated April 3, 2012, filed on April 9, 2012, SEC File No. 001-4300).
4.6	–	Form of 4.75% Notes due 2043 (incorporated by reference to Exhibit 4.3 to Registrant's Current Report on Form 8-K, dated April 3, 2012, filed on April 9, 2012, SEC File No. 001-4300).
4.7	–	Form of 2.625% Notes due 2023 (incorporated by reference to Exhibit 4.1 to Registrant's Current Report on Form 8-K, dated November 28, 2012, filed on December 4, 2012, SEC File No. 001-4300).
4.8	–	Form of 4.250% Notes due 2044 (incorporated by reference to Exhibit 4.2 to Registrant's Current Report on Form 8-K, dated November 28, 2012, filed on December 4, 2012, SEC File No. 001-4300).

EXHIBIT NO.		DESCRIPTION
4.9	–	Form of 4.375% Notes due 2028 (incorporated by reference to Exhibit 4.1 to Registrant's Current Report on Form 8-K, filed on August 16, 2018, SEC File No. 001-4300).
4.10	–	Rights Agreement, dated January 31, 1996, between Registrant and Wells Fargo Bank, N.A. (as successor-in-interest to Norwest Bank Minnesota, N.A.), rights agent, relating to the declaration of a rights dividend to Registrant's common shareholders of record on January 31, 1996 (incorporated by reference to Exhibit (a) to Registrant's Registration Statement on Form 8-A, dated January 24, 1996, SEC File No. 001-4300).
4.11	–	Amendment No. 1, dated as of January 31, 2006, to the Rights Agreement dated as of January 31, 1996 between Registrant and Wells Fargo Bank, N.A. (as successor-in-interest to Norwest Bank Minnesota, N.A.) (incorporated by reference to Exhibit 4.4 to Registrant's Amendment No. 1 to Registration Statement on Form 8-A, dated January 31, 2006, SEC File No. 001-4300).
4.12	–	Amendment No. 2, dated March 10, 2014, to the Rights Agreement by and between Registrant and Wells Fargo Bank, N.A. (incorporated by reference to Exhibit 4.3 to Amendment No. 2 to Registrant's Registration Statement on Form 8-A, filed March 10, 2014, SEC File No. 001-4300).
4.13	–	Senior Indenture, dated February 15, 1996, between Registrant and The Bank of New York Mellon Trust Company, N.A. (formerly known as the Bank of New York Trust Company, N.A., as successor-in-interest to JPMorgan Chase Bank, formerly known as The Chase Manhattan Bank), as trustee, governing the senior debt securities and guarantees (incorporated by reference to Exhibit 4.6 to Registrant's Registration Statement on Form S-3, dated May 23, 2003, Reg. No. 333-105536).
4.14	–	First Supplemental Indenture to the Senior Indenture, dated as of November 5, 1996, between Registrant and The Bank of New York Mellon Trust Company, N.A. (formerly known as the Bank of New York Trust Company, N.A., as successor-in-interest to JPMorgan Chase Bank, formerly known as The Chase Manhattan Bank), as trustee, governing the senior debt securities and guarantees (incorporated by reference to Exhibit 4.7 to Registrant's Registration Statement on Form S-3, dated May 23, 2003, Reg. No. 333-105536).
*4.15	–	Second Supplemental Indenture, dated as of December 16, 2019, among Apache Corporation and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, N.A., formerly The Chase Manhattan Bank, formerly Chemical Bank), as trustee under Indenture, dated as of February 15, 1996, as previously amended and supplemented.
4.16	–	Form of Indenture among Registrant, Apache Finance Canada Corporation and The Bank of New York Mellon Trust Company, N.A. (formerly known as the Bank of New York Trust Company, N.A., as successor-in-interest to The Chase Manhattan Bank), as trustee, governing the debt securities and guarantees (incorporated by reference to Exhibit 4.1 to Amendment No. 1 to Registrant's Registration Statement on Form S-3, dated November 12, 1999, Reg. No. 333-90147).
4.17	–	Supplemental Indenture, dated as of August 14, 2017, among Apache Finance Canada Corporation, Apache Corporation, and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, N.A., formerly The Chase Manhattan Bank), as trustee (incorporated by reference to Exhibit 4.1 to Registrant's Quarterly Report on Form 10-Q filed November 3, 2017, SEC File No. 001-04300).
*4.18	–	Second Supplemental Indenture, dated as of December 16, 2019, among Apache Corporation (as successor to Apache Finance Canada Corporation) and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, N.A., formerly The Chase Manhattan Bank), as trustee under Indenture, dated as of November 23, 1999, as previously amended and supplemented.
4.19	–	Senior Indenture, dated May 19, 2011, between Registrant and Wells Fargo Bank, National Association, as trustee, governing the senior debt securities of Apache Corporation (incorporated by reference to Exhibit 4.14 to Registrant's Registration Statement on Form S-3, dated May 23, 2011, Reg. No. 333-174429).
*4.20	–	Supplemental Indenture, dated as of December 16, 2019, among Apache Corporation and Wells Fargo Bank, National Association, as trustee under Indenture, dated as of May 19, 2011.
4.21	–	Indenture, dated August 14, 2018, by and between Apache Corporation and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.5 to Registrant's Post-Effective Amendment No. 1 to Registration Statement on Form S-3 filed August 14, 2018, SEC File No. 333-219345).
†4.22	–	Form of Apache Corporation November 10, 2010 First Non-Qualified Stock Option Agreement for Certain Employees of Apache Corporation (incorporated by reference to Exhibit 4.6 to Registrant's Registration Statement on Form S-8 filed on November 10, 2010, Reg. No. 333-170533).
†4.23	–	Form of Apache Corporation November 10, 2010 Second Non-Qualified Stock Option Agreement for Certain Employees of Apache Corporation (incorporated by reference to Exhibit 4.7 to Registrant's Registration Statement on Form S-8 filed on November 10, 2010, Reg. No. 333-170533).
†4.24	–	Form of Apache Corporation November 10, 2010 Non-Statutory Stock Option Agreement for Certain Employees of Apache Corporation (incorporated by reference to Exhibit 4.8 to Registrant's Registration Statement on Form S-8 filed on November 10, 2010, Reg. No. 333-170533).
*4.25	–	Description of 7.75% Notes due December 15, 2029.

EXHIBIT NO.		DESCRIPTION
*4.26	–	Description of Equity Securities of the Registrant.
10.1	–	Credit Agreement, dated as of March 14, 2018, among Apache Corporation, the lenders party thereto, the issuing banks party thereto, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America, N.A., as Syndication Agent, Citibank, N.A., Royal Bank of Canada, HSBC Bank USA, National Association, The Bank of Tokyo-Mitsubishi UFJ, Ltd, Wells Fargo Bank, National Association, Goldman Sachs Bank USA, The Toronto-Dominion Bank, New York Branch, and Mizuho Bank, Ltd., as Co-Documentation Agents (incorporated by reference to Exhibit 10.1 to Registrant's Current Report on Form 8-K filed March 19, 2018).
†10.2	–	Apache Corporation Corporate Incentive Compensation Plan A (Senior Officers' Plan), dated July 16, 1998 (incorporated by reference to Exhibit 10.13 to Registrant's Annual Report on Form 10-K for year ended December 31, 1998, SEC File No. 001-4300).
†10.3	–	First Amendment to Apache Corporation Corporate Incentive Compensation Plan A, dated November 20, 2008, effective as of January 1, 2005 (incorporated by reference to Exhibit 10.17 to Registrant's Annual Report on Form 10-K for year ended December 31, 2008, SEC File No. 001-4300).
†10.4	–	Apache Corporation Corporate Incentive Compensation Plan B (Strategic Objectives Format), dated July 16, 1998 (incorporated by reference to Exhibit 10.14 to Registrant's Annual Report on Form 10-K for year ended December 31, 1998, SEC File No. 001-4300).
†10.5	–	First Amendment to Apache Corporation Corporate Incentive Compensation Plan B, dated November 20, 2008, effective as of January 1, 2005 (incorporated by reference to Exhibit 10.19 to Registrant's Annual Report on Form 10-K for year ended December 31, 2008, SEC File No. 001-4300).
†10.6	–	Apache Corporation 401(k) Savings Plan, as amended and restated, dated March 17, 2015, effective January 31, 2014 (incorporated by reference to Exhibit 10.15 to Registrant's Annual Report on Form 10-K for year ended December 31, 2015, SEC File No. 001-4300).
†10.7	–	Amendment to Apache Corporation 401(k) Savings Plan, dated April 17, 2014 (incorporated by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, SEC File No. 001-4300).
†10.8	–	Amendment to Apache Corporation 401(k) Savings Plan, dated May 16, 2014 (incorporated by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014, SEC File No. 001-4300).
†10.9	–	Amendment to Apache Corporation 401(k) Savings Plan, effective February 3, 2016 (incorporated by reference to Exhibit 10.18 to Registrant's Annual Report on Form 10-K for year ended December 31, 2015, SEC File No. 001-4300).
†10.10	–	Non-Qualified Retirement/Savings Plan of Apache Corporation, as amended and restated, dated July 16, 2014, effective January 1, 2015 (incorporated by reference to Exhibit 10.2 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014, SEC File No. 001-4300).
†10.11	–	Non-Qualified Restorative Retirement Savings Plan of Apache Corporation, as amended and restated, dated July 16, 2014, effective January 1, 2015 (incorporated by reference to Exhibit 10.3 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014, SEC File No. 001-4300).
†10.12	–	Apache Corporation 2016 Omnibus Compensation Plan, dated February 3, 2016, effective May 12, 2016 (incorporated by reference to Exhibit 10.1 to Registrant's Current Report on Form 8-K filed May 16, 2016, SEC File No. 001-4300).
*†10.13	–	First Amendment to the Apache Corporation 2016 Omnibus Compensation Plan, dated July 29, 2019.
†10.14	–	Apache Corporation 2011 Omnibus Equity Compensation Plan, as amended and restated May 12, 2016 (incorporated by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, SEC File No. 001-4300).
*†10.15	–	First Amendment to the Apache Corporation 2011 Omnibus Equity Compensation Plan, dated July 29, 2019.
†10.16	–	Apache Corporation 2007 Omnibus Equity Compensation Plan, as amended and restated May 4, 2011 (incorporated by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, SEC File No. 001-4300).
†10.17	–	Apache Corporation 2005 Stock Option Plan, as amended and restated September 16, 2013 (incorporated by reference to Exhibit 10.3 to Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013, File No. 001-4300).
†10.18	–	Apache Corporation Income Continuance Plan, as amended and restated effective as of July 29, 2019 (incorporated by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, SEC File No. 001-4300).

EXHIBIT NO.		DESCRIPTION
†10.19	–	Apache Corporation Deferred Delivery Plan, as amended and restated May 12, 2016 (incorporated by reference to Exhibit 10.3 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, SEC File No. 001-4300).
†10.20	–	Apache Corporation Non-Employee Directors' Compensation Plan, as amended and restated July 13, 2017 (incorporated by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, SEC File No. 001-4300).
†10.21	–	Apache Corporation Outside Directors' Retirement Plan, as amended and restated July 16, 2014, effective June 30, 2014 (incorporated by reference to Exhibit 10.5 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014, SEC File No. 001-4300).
†10.22	–	Apache Corporation Equity Compensation Plan for Non-Employee Directors, as amended and restated February 8, 2007 (incorporated by reference to Exhibit 10.2 to Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007, SEC File No. 001-4300).
†10.23	–	Apache Corporation Non-Employee Directors' Restricted Stock Units Program, as amended and restated May 14, 2015 (incorporated by reference to Exhibit 10.6 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, SEC File No. 001-4300).
†10.24	–	Apache Corporation Non-Employee Directors' Restricted Stock Units Program, effective May 12, 2016, pursuant to Apache Corporation 2016 Omnibus Compensation Plan (incorporated by reference to Exhibit 10.4 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, SEC File No. 001-4300).
†10.25	–	Apache Corporation Outside Directors' Deferral Program, effective May 12, 2016, pursuant to Apache Corporation 2016 Omnibus Compensation Plan (incorporated by reference to Exhibit 10.5 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, SEC File No. 001-4300).
†10.26	–	Apache Corporation Outside Directors' Deferral Program, effective July 16, 2014, pursuant to Apache Corporation 2011 Omnibus Equity Compensation Plan (incorporated by reference to Exhibit 10.7 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014, SEC File No. 001-4300).
†10.27	–	Employment Agreement between Registrant and G. Steven Farris, dated June 6, 1988, and First Amendment, dated November 20, 2008, effective as of January 1, 2005 (incorporated by reference to Exhibit 10.44 to Registrant's Annual Report on Form 10-K for year ended December 31, 2008, SEC File No. 001-4300).
†10.28	–	Retirement Agreement, dated January 19, 2015, between Registrant and G. Steven Farris (incorporated by reference to Exhibit 10.39 to Registrant's Annual Report on Form 10-K for the year ended December 31, 2014, SEC File No. 001-4300).
†10.29	–	Apache Corporation Executive Termination Policy, as amended and restated effective as of July 29, 2019 (incorporated by reference to Exhibit 10.2 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, SEC File No. 001-4300).
†10.30	–	2016 Employee Release and Settlement Agreement between Registrant and Thomas E. Voytovich, effective November 30, 2015 (incorporated by reference to Exhibit 10.41 to Registrant's Annual Report on Form 10-K for year ended December 31, 2015, SEC File No. 001-4300).
†10.31	–	2018 Employee Release and Benefits Agreement between Registrant and W. Kregg Olson, effective August 1, 2018 (incorporated by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, SEC File No. 001-4300).
†10.32	–	Form of Stock Option Award Agreement, dated May 6, 2009 (incorporated by reference to Exhibit 10.39 to Registrant's Annual Report on Form 10-K for year ended December 31, 2009, SEC File No. 001-4300).
†10.33	–	Form of 2014 Performance Agreement (Total Shareholder Return), dated January 9, 2014 (incorporated by reference to Exhibit 10.46 to Registrant's Annual Report on Form 10-K for year ended December 31, 2013, SEC File No. 001-4300).
†10.34	–	Form of 2014 Performance Agreement (Business Performance), dated February 3, 2014 (incorporated by reference to Exhibit 10.47 to Registrant's Annual Report on Form 10-K for year ended December 31, 2013, SEC File No. 001-4300).
†10.35	–	Form of 2015 Performance Share Program Award Notice and Agreement, dated February 19, 2015 (incorporated by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, SEC File No. 001-4300).
†10.36	–	Restricted Stock Unit Award Agreement between Registrant and John J. Christmann, dated February 18, 2015 (incorporated by reference to Exhibit 10.7 to Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, SEC File No. 001-4300).
†10.37	–	2015 Long Term Cash Performance Program Award Notice and Agreement between Registrant and Stephen J. Riney, dated April 8, 2015 (incorporated by reference to Exhibit 10.2 to Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, SEC File No. 001-4300).

EXHIBIT NO.		DESCRIPTION
†10.38	–	Form of 2016 Performance Share Program Award Notice and Agreement, dated January 7, 2016 (incorporated by reference to Exhibit 10.59 to Registrant's Annual Report on Form 10-K for year ended December 31, 2015, SEC File No. 001-4300).
†10.39	–	Form of 2017 Performance Share Program Award Notice and Agreement, dated December 13, 2016 (incorporated by reference to Exhibit 10.45 to Registrant’s Annual Report on Form 10-K for year ended December 31, 2016, SEC File No. 001-4300).
†10.40	–	Form of Restricted Stock Unit Award Agreement, dated February 3, 2016 (incorporated by reference to Exhibit 10.60 to Registrant's Annual Report on Form 10-K for year ended December 31, 2015, SEC File No. 001-4300).
†10.41	–	Form of Restricted Stock Unit Award Agreement dated September 14, 2016 (2016 Omnibus Compensation Plan) (incorporated by reference to Exhibit 10.1 to Registrant’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, SEC File No. 001-4300).
†10.42	–	Form of Stock Option Grant Agreement, dated December 13, 2016 (2016 Omnibus Compensation Plan (incorporated by reference to Exhibit 10.48 to Registrant’s Annual Report on Form 10-K for year ended December 31, 2016, SEC File No. 001-4300).
†10.43	–	Form of 2018 Restricted Stock Unit Award Agreement dated January 16, 2018 (2016 Omnibus Compensation Plan) (incorporated by reference to Exhibit 10.43 to Registrant’s Annual Report on Form 10-K for the year ended December 31, 2017, SEC File No. 001-04300).
†10.44	–	Form of 2018 Cash-Settled Restricted Stock Unit Award Agreement dated January 16, 2018 (2016 Omnibus Compensation Plan) (incorporated by reference to Exhibit 10.44 to Registrant’s Annual Report on Form 10-K for the year ended December 31, 2017, SEC File No. 001-04300).
†10.45	–	Form of 2018 Performance Share Grant Agreement (2016 Omnibus Compensation Plan), dated January 16, 2018 (incorporated by reference to Exhibit 10.1 to Registrant’s Current Report on Form 8-K filed January 19, 2018, SEC File No. 001-04300).
†10.46	–	Form of 2018 Stock Option Grant Agreement (2016 Omnibus Compensation Plan), dated January 16, 2018 (incorporated by reference to Exhibit 10.2 to Registrant’s Current Report on Form 8-K filed January 19, 2018, SEC File No. 001-04300).
†10.47	–	Form of 2019 Performance Share Program (2016 Omnibus Compensation Plan), dated January 3, 2019 (incorporated by reference to Exhibit 10.1 to Registrant’s Current Report on Form 8-K filed January 7, 2019, SEC File No. 001-04300).
†10.48	–	Form of 2019 Cash-Based Restricted Stock Unit Grant Agreement (2016 Omnibus Compensation Plan), dated January 3, 2019 (incorporated by reference to Exhibit 10.2 to Registrant’s Current Report on Form 8-K filed January 7, 2019, SEC File No. 001-04300).
†10.49	–	Form of 2019 Restricted Stock Unit Award Agreement (2016 Omnibus Compensation Plan), dated January 3, 2019 (incorporated by reference to Exhibit 10.47 to Registrant’s Annual Report on Form 10-K for the year ended December 31, 2018, SEC File No. 001-04300).
†10.50	–	Form of 2019 Cash-Based Restricted Stock Unit Grant Agreement (2016 Omnibus Compensation Plan), dated January 3, 2019 (incorporated by reference to Exhibit 10.48 to Registrant’s Annual Report on Form 10-K for the year ended December 31, 2018, SEC File No. 001-04300).
†10.51	–	Form of Stock Option Award Agreement, dated February 3, 2016 (incorporated by reference to Exhibit 10.61 to Registrant’s Annual Report on Form 10-K for year ended December 31, 2015, SEC File No. 001-4300).
*†10.52	–	Amendment of Performance Share Grant Agreement, dated July 29, 2019.
*†10.53	–	Amendment of Restricted Stock Unit Award Agreement, dated July 29, 2019.
*†10.54	–	Amendment of Stock Option Grant Agreement, dated July 29, 2019.
*†10.55	–	Form of 2020 Performance Share Program Agreement (2016 Omnibus Compensation Plan), dated January 3, 2020.
*†10.56	–	Form of 2020 Cash-Based Restricted Stock Unit Award Agreement (2016 Omnibus Compensation Plan), dated January 3, 2020.
*†10.57	–	Form of 2020 Cash-Based Restricted Stock Unit Award Agreement (2016 Omnibus Compensation Plan), dated January 3, 2020.
*†10.58	–	Form of 2020 Restricted Stock Unit Award Agreement (2016 Omnibus Compensation Plan), dated January 3, 2020.
*21.1	–	Subsidiaries of Registrant.
*23.1	–	Consent of Ernst & Young LLP.
*23.2	–	Consent of Ryder Scott Company, L.P., Petroleum Consultants.

EXHIBIT NO.		DESCRIPTION
*24.1	–	Power of Attorney (included as a part of the signature pages to this report).
*31.1	–	Certification (pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act) by Principal Executive Officer.
*31.2	–	Certification (pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act) by Principal Financial Officer.
*32.1	–	Section 1350 Certification (pursuant to Sarbanes-Oxley Section 906) by Principal Executive Officer and Principal Financial Officer.
*99.1	–	Report of Ryder Scott Company, L.P., Petroleum Consultants.
*101.INS	–	Inline 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 Schema Document.
*101.CAL	–	Inline XBRL Calculation Linkbase Document.
*101.DEF	–	Inline XBRL Definition Linkbase Document.
*101.LAB	–	Inline XBRL Label Linkbase Document.
*101.PRE	–	Inline XBRL Presentation Linkbase Document.
*104	–	Cover Page Interactive Data File (the cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document).

* Filed herewith.

† Management contracts or compensatory plans or arrangements required to be filed herewith pursuant to Item 15 hereof.

NOTE: Debt instruments of the Registrant defining the rights of long-term debt holders in principal amounts not exceeding 10 percent of the Registrant's consolidated assets have been omitted and will be provided to the Commission upon request.

ITEM 16. *FORM 10-K SUMMARY*

None.

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.

APACHE CORPORATION

/s/ John J. Christmann IV
John J. Christmann IV
Chief Executive Officer and President

Dated: February 27, 2020

POWER OF ATTORNEY

The officers and directors of Apache Corporation, whose signatures appear below, hereby constitute and appoint John J. Christmann IV, Stephen J. Riney, and Rebecca A. Hoyt, and each of them (with full power to each of them to act alone), the true and lawful attorney-in-fact to sign and execute, on behalf of the undersigned, any amendment(s) to this report and each of the undersigned does hereby ratify and confirm all that said attorneys shall do or cause to be done by virtue thereof.

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.

Name	Title	Date
/s/ John J. Christmann IV John J. Christmann IV	Director, Chief Executive Officer, and President (principal executive officer)	February 27, 2020
/s/ Stephen J. Riney Stephen J. Riney	Executive Vice President and Chief Financial Officer (principal financial officer)	February 27, 2020
/s/ Rebecca A. Hoyt Rebecca A. Hoyt	Senior Vice President, Chief Accounting Officer, and Controller (principal accounting officer)	February 27, 2020
/s/ Annell R. Bay Annell R. Bay	Director	February 27, 2020
/s/ Juliet S. Ellis Juliet S. Ellis	Director	February 27, 2020
/s/ Chansoo Joung Chansoo Joung	Director	February 27, 2020
/s/ Rene R. Joyce Rene R. Joyce	Director	February 27, 2020
/s/ John E. Lowe John E. Lowe	Director, Non-Executive Chairman of the Board	February 27, 2020
/s/ William C. Montgomery William C. Montgomery	Director	February 27, 2020
/s/ Amy H. Nelson Amy H. Nelson	Director	February 27, 2020
/s/ Daniel W. Rabun Daniel W. Rabun	Director	February 27, 2020
/s/ Peter A. Ragauss Peter A. Ragauss	Director	February 27, 2020

REPORT OF MANAGEMENT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of the Company is responsible for the preparation and integrity of the consolidated financial statements appearing in this annual report on Form 10-K. The financial statements were prepared in conformity with accounting principles generally accepted in the United States and include amounts that are based on management's best estimates and judgments.

Management of the Company is responsible for establishing and maintaining effective internal control over financial reporting as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the consolidated financial statements. Our internal control over financial reporting is supported by a program of internal audits and appropriate reviews by management, written policies and guidelines, careful selection and training of qualified personnel and a written code of business conduct adopted by our Company's board of directors, applicable to all Company directors and all officers and employees of our Company and subsidiaries.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements and even when determined to be effective, can only provide reasonable assurance with respect to financial statement preparation and presentation. 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.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control – Integrated Framework (2013).* Based on our assessment, management believes that the Company maintained effective internal control over financial reporting as of December 31, 2019.

The Company's independent auditors, Ernst & Young LLP, a registered public accounting firm, are appointed by the Audit Committee of the Company's board of directors. Ernst & Young LLP have audited and reported on the consolidated financial statements of Apache Corporation and subsidiaries and the effectiveness of the Company's internal control over financial reporting. The reports of the independent auditors follow this report on pages F-2 and F-3.

/s/ John J. Christmann IV
Chief Executive Officer and President
(principal executive officer)

/s/ Stephen J. Riney
Executive Vice President and Chief Financial Officer
(principal financial officer)

/s/ Rebecca A. Hoyt
Senior Vice President, Chief Accounting Officer and Controller
(principal accounting officer)

Houston, Texas
February 27, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Apache Corporation:

Opinion on Internal Control Over Financial Reporting

We have audited Apache Corporation and subsidiaries' internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Apache Corporation and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related statements of consolidated operations, comprehensive income (loss), cash flows and changes in equity and noncontrolling interest for each of the three years in the period ended December 31, 2019, and the related notes and our report dated February 27, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible 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 Report of Management on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

/s/ Ernst & Young LLP

Houston, Texas
February 27, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Apache Corporation:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Apache Corporation and subsidiaries (the Company) as of December 31, 2019 and 2018, the related statements of consolidated operations, comprehensive income (loss), cash flows, and changes in equity and noncontrolling interest for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 27, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) 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 matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Depreciation, depletion and amortization and impairment of property and equipment

Description of the Matter	At December 31, 2019, the carrying value of the Company’s property and equipment was $14,158 million, and depreciation, depletion and amortization (DD&A) expense was $2,680 million, and impairment expense was $2,949 million for the year then ended. As described in Note 1, the Company follows the successful efforts method of accounting for its oil and gas properties. DD&A of the cost of proved oil and gas properties is calculated using the unit-of-production method based on proved oil and gas reserves, as estimated by the Company’s internal reservoir engineers. When circumstances indicate that the carrying value of property and equipment may not be recoverable, the Company compares unamortized capitalized costs to the expected undiscounted pre-tax future cash flows for the associated assets. If the expected undiscounted pre-tax future cash flows are lower than the unamortized capitalized cost, the capitalized cost is reduced to fair value. Proved oil and gas reserves are those quantities of natural gas, crude oil, condensate, and natural gas liquids, which by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations. Additionally, the expected future cash flows used for impairment reviews and related fair value calculations are based on judgmental assessments of future production volumes from estimated oil and gas reserves. Significant judgment is required by the Company’s internal reservoir engineers in evaluating geological and engineering data when estimating oil and gas reserves. Estimating reserves also requires the selection of inputs, including oil and gas price assumptions, future operating and capital costs assumptions, and tax rates by jurisdiction, among others. Because of the complexity involved in estimating oil and gas reserves, management engaged independent petroleum engineers to audit the proved oil and gas reserve estimates prepared by the Company’s internal reservoir engineers for select properties as of December 31, 2019. Auditing the Company’s DD&A and impairment calculations is complex because of the use of the work of the internal reservoir engineers and the independent petroleum engineers and the evaluation of management’s determination of the inputs described above used by the engineers in estimating oil and gas reserves.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design, and tested the operating effectiveness of the Company’s controls over its process to calculate DD&A and impairment, including management’s controls over the completeness and accuracy of the financial data provided to the engineers for use in estimating oil and gas reserves. Our audit procedures included, among others, evaluating the professional qualifications and objectivity of the Company’s internal reservoir engineers primarily responsible for overseeing the preparation of the reserve estimates and the independent petroleum engineers used to audit the proved oil and gas reserve estimates for select properties. In addition, in assessing whether we can use the work of the engineers, we evaluated the completeness and accuracy of the financial data and inputs described above used by the engineers in estimating oil and gas reserves by agreeing them to source documentation, and we identified and evaluated corroborative and contrary evidence. For proved undeveloped reserves, we evaluated management’s development plan for compliance with the SEC rule that undrilled locations are scheduled to be drilled within five years, unless specific circumstances justify a longer time, by assessing consistency of the development projections with the Company’s development plan and the availability of capital relative to the development plan. We also tested the mathematical accuracy of the DD&A and impairment calculations, including comparing the oil and gas reserve amounts used in the calculations to the Company’s reserve reports.

Accounting for asset retirement obligation for the North Sea segment

Description of the Matter	At December 31, 2019, the asset retirement obligation (ARO) balance totaled $1,858 million. As further described in Note 8, the Company’s ARO reflects the estimated present value of the amount of dismantlement, removal, site reclamation, and similar activities associated with the Company’s oil and gas properties and other long-lived assets. The estimation of the ARO related to the North Sea segment requires significant judgment given the magnitude of the expected retirement costs and higher estimation uncertainty related to the timing of settlements and settlement amounts. Auditing the Company’s ARO for the North Sea segment is complex and highly judgmental because of the significant estimation required by management in determining the obligation. In particular, the estimate was sensitive to significant subjective assumptions such as retirement cost estimates and the estimated timing of settlements, which are both affected by expectations about future market and economic conditions.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design, and tested the operating effectiveness of the Company’s internal controls over its ARO estimation process, including management’s review of the significant assumptions that have a material effect on the determination of the obligations. We also tested management’s controls over the completeness and accuracy of financial data used in the valuation. To test the ARO for the North Sea segment, our audit procedures included, among others, assessing the significant assumptions and inputs used in the valuation, such as retirement cost estimates and timing of settlement assumptions. For example, we evaluated retirement cost estimates by comparing the Company’s estimates to recent offshore activities and costs. Additionally, we compared assumptions for the timing of settlements to production forecasts. We also involved our internal specialists in testing the underlying retirement cost estimates.

/s/ Ernst & Young LLP

We have served as the Company’s auditor since 2002.

Houston, Texas
February 27, 2020

APACHE CORPORATION AND SUBSIDIARIES
STATEMENT OF CONSOLIDATED OPERATIONS

	For the Year Ended December 31,		
	2019	2018	2017
	(In millions, except per common share data)		
REVENUES AND OTHER:			
Oil and gas production revenues:			
Oil revenues	$ 5,230	$ 5,846	$ 4,598
Natural gas revenues	678	919	959
Natural gas liquids revenues	407	583	330
	6,315	7,348	5,887
Gain on divestitures	43	23	627
Other	53	53	(91)
	6,411	7,424	6,423
OPERATING EXPENSES:			
Lease operating expenses	1,447	1,439	1,384
Gathering, processing, and transmission	306	348	195
Taxes other than income	207	215	151
Exploration	805	503	549
General and administrative	406	431	395
Transaction, reorganization, and separation	50	28	16
Depreciation, depletion, and amortization	2,680	2,405	2,280
Asset retirement obligation accretion	107	108	130
Impairments	2,949	511	8
Financing costs, net	462	478	397
	9,419	6,466	5,505
NET INCOME (LOSS) BEFORE INCOME TAXES	(3,008)	958	918
Current income tax provision	660	894	595
Deferred income tax provision (benefit)	14	(222)	(1,180)
NET INCOME (LOSS) INCLUDING NONCONTROLLING INTERESTS	(3,682)	286	1,503
Net income attributable to noncontrolling interest - Egypt	167	245	199
Net income (loss) attributable to noncontrolling interest - Altus	(334)	1	—
Net income attributable to Altus Preferred Unit limited partners	38	—	—
NET INCOME (LOSS) ATTRIBUTABLE TO COMMON STOCK	$ (3,553)	$ 40	$ 1,304
NET INCOME (LOSS) PER COMMON SHARE:			
Basic	$ (9.43)	$ 0.11	$ 3.42
Diluted	$ (9.43)	$ 0.11	$ 3.41
WEIGHTED-AVERAGE NUMBER OF COMMON SHARES OUTSTANDING:			
Basic	377	382	381
Diluted	377	384	383

The accompanying notes to consolidated financial statements are an integral part of this statement.

APACHE CORPORATION AND SUBSIDIARIES
STATEMENT OF CONSOLIDATED COMPREHENSIVE INCOME (LOSS)

	For the Year Ended December 31,		
	2019	2018	2017
	(In millions)		
NET INCOME (LOSS) INCLUDING NONCONTROLLING INTERESTS	$ (3,682)	$ 286	$ 1,503
OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX:			
Pension and postretirement benefit plan	13	—	7
Currency translation adjustment	—	—	109
Share of equity method interests other comprehensive loss	(1)	—	—
	12	—	116
COMPREHENSIVE INCOME (LOSS) INCLUDING NONCONTROLLING INTERESTS	(3,670)	286	1,619
Comprehensive income attributable to noncontrolling interest - Egypt	167	245	199
Comprehensive income (loss) attributable to noncontrolling interest - Altus	(334)	1	—
Comprehensive income attributable to Altus Preferred Unit limited partners	38	—	—
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO COMMON STOCK	$ (3,541)	$ 40	$ 1,420

The accompanying notes to consolidated financial statements are an integral part of this statement.

APACHE CORPORATION AND SUBSIDIARIES
STATEMENT OF CONSOLIDATED CASH FLOWS

	For the Year Ended December 31,		
	2019	2018	2017
	(In millions)		
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income (loss) including noncontrolling interests	$ (3,682)	$ 286	$ 1,503
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Gain on divestitures	(43)	(23)	(627)
Exploratory dry hole expense and unproved leasehold impairments	676	351	429
Depreciation, depletion, and amortization	2,680	2,405	2,280
Asset retirement obligation accretion	107	108	130
Impairments	2,949	511	8
Provision for (benefit from) deferred income taxes	14	(222)	(1,180)
Loss from extinguishment of debt	75	94	1
Other	94	22	204
Changes in operating assets and liabilities:			
Receivables	133	150	(270)
Inventories	(41)	(6)	32
Drilling advances	(21)	(11)	(128)
Deferred charges and other	51	83	(58)
Accounts payable	(5)	77	63
Accrued expenses	(84)	5	4
Deferred credits and noncurrent liabilities	(36)	(53)	37
NET CASH PROVIDED BY OPERATING ACTIVITIES	2,867	3,777	2,428
CASH FLOWS FROM INVESTING ACTIVITIES:			
Additions to oil and gas property	(2,594)	(3,190)	(2,052)
Additions to Altus gathering, processing, and transmission (GPT) facilities	(327)	(581)	(530)
Leasehold and property acquisitions	(40)	(133)	(178)
Altus equity method interests	(1,172)	(91)	—
Proceeds from sale of Canadian assets, net of cash divested	—	—	661
Proceeds from sale of oil and gas properties and GPT, other	718	138	758
Other, net	(31)	(87)	(75)
NET CASH USED IN INVESTING ACTIVITIES	(3,446)	(3,944)	(1,416)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Commercial paper, credit facilities and bank notes, net	—	—	—
Proceeds from Altus credit facility	396	—	—
Fixed rate debt borrowings	989	992	—
Payments on fixed-rate debt	(1,150)	(1,370)	(70)
Proceeds from Altus transaction	—	628	—
Distributions to noncontrolling interest - Egypt	(305)	(345)	(265)
Redeemable noncontrolling interest - Altus Preferred Unit limited partners	611	—	—
Dividends paid	(376)	(382)	(380)
Treasury stock activity, net	2	(305)	—
Other	(55)	(5)	(6)
NET CASH PROVIDED BY (USED IN) FINANCING ACTIVITIES	112	(787)	(721)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(467)	(954)	291
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	714	1,668	1,377
CASH AND CASH EQUIVALENTS AT END OF PERIOD	$ 247	$ 714	$ 1,668
SUPPLEMENTARY CASH FLOW DATA:			
Interest paid, net of capitalized interest	$ 394	$ 402	$ 405
Income taxes paid, net of refunds	$ 649	$ 867	$ 516

The accompanying notes to consolidated financial statements are an integral part of this statement.

APACHE CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEET

In millions except share and per-share amounts	December 31, 2019	December 31, 2018
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents ($6 and $450 related to Altus VIE)	$ 247	$ 714
Receivables, net of allowance of $88 and $92	1,062	1,194
Other current assets (Note 5) ($5 and $7 related to Altus VIE)	652	779
	1,961	2,687
PROPERTY AND EQUIPMENT:		
Oil and gas, on the basis of successful efforts accounting:		
Proved properties	40,540	42,345
Unproved properties and properties under development	666	1,435
Gathering, processing, and transmission facilities ($203 and $1,251 related to Altus VIE)	799	1,856
Other ($4 and nil related to Altus VIE)	1,140	1,120
	43,145	46,756
Less: Accumulated depreciation, depletion, and amortization ($1 and $24 related to Altus VIE)	(28,987)	(28,335)
	14,158	18,421
OTHER ASSETS:		
Equity method interests (Note 6) ($1,258 and $91 related to Altus VIE)	1,258	121
Deferred charges and other ($4 and $71 related to Altus VIE)	730	353
	$ 18,107	$ 21,582
LIABILITIES, NONCONTROLLING INTEREST, AND EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 695	$ 709
Current debt ($10 and nil related to Altus VIE)	11	151
Other current liabilities (Note 7) ($21 and $85 related to Altus VIE)	1,149	1,341
	1,855	2,201
LONG-TERM DEBT (Note 9) ($396 and nil related to Altus VIE)	8,555	8,093
DEFERRED CREDITS AND OTHER NONCURRENT LIABILITIES:		
Income taxes	346	391
Asset retirement obligation ($60 and $29 related to Altus VIE)	1,811	1,866
Other ($107 and nil related to Altus VIE)	520	219
	2,677	2,476
COMMITMENTS AND CONTINGENCIES (Note 11)		
REDEEMABLE NONCONTROLLING INTEREST - ALTUS PREFERRED UNIT LIMITED PARTNERS (Note 13)	555	—
EQUITY:		
Common stock, $0.625 par, 860,000,000 shares authorized, 417,026,863 and 415,692,116 shares issued, respectively	261	260
Paid-in capital	11,769	12,106
Accumulated deficit	(5,601)	(2,048)
Treasury stock, at cost, 40,964,193 and 40,995,894 shares, respectively	(3,190)	(3,192)
Accumulated other comprehensive income	16	4
APACHE SHAREHOLDERS' EQUITY	3,255	7,130
Noncontrolling interest - Egypt	1,137	1,275
Noncontrolling interest - Altus	73	407
TOTAL EQUITY	4,465	8,812
	$ 18,107	$ 21,582

The accompanying notes to consolidated financial statements are an integral part of this statement.

APACHE CORPORATION AND SUBSIDIARIES
STATEMENT OF CONSOLIDATED CHANGES IN EQUITY AND NONCONTROLLING INTEREST

	Redeemable Noncontrolling Interest - Altus Preferred Unit Limited Partners	Common Stock	Paid-In Capital	Accumulated Deficit	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	APACHE SHAREHOLDERS' EQUITY	Noncontrolling Interests	TOTAL EQUITY
	(In millions)					(In millions)			
BALANCE AT DECEMBER 31, 2016	$ —	$ 258	$ 12,364	$ (3,385)	$ (2,887)	$ (112)	$ 6,238	$ 1,441	$ 7,679
Net income attributable to common stock	—	—	—	1,304	—	—	1,304	—	1,304
Net income attributable to noncontrolling interest - Egypt	—	—	—	—	—	—	—	199	199
Distributions to noncontrolling interest - Egypt	—	—	—	—	—	—	—	(265)	(265)
Pension & Postretirement benefit plans, net of tax	—	—	—	—	—	7	7	—	7
Common dividends ($1.00 per share)	—	—	(381)	—	—	—	(381)	—	(381)
Common stock activity, net	—	1	(40)	—	—	—	(39)	—	(39)
Compensation expense	—	—	174	—	—	—	174	—	174
Other	—	—	11	(7)	—	109	113	—	113
BALANCE AT DECEMBER 31, 2017	$ —	$ 259	$ 12,128	$ (2,088)	$ (2,887)	$ 4	$ 7,416	$ 1,375	$ 8,791
Net income attributable to common stock	—	—	—	40	—	—	40	—	40
Net income attributable to noncontrolling interest - Egypt	—	—	—	—	—	—	—	245	245
Net income attributable to noncontrolling interest - Altus	—	—	—	—	—	—	—	1	1
Distributions to noncontrolling interest - Egypt	—	—	—	—	—	—	—	(345)	(345)
Common dividends ($1.00 per share)	—	—	(380)	—	—	—	(380)	—	(380)
Common stock activity, net	—	1	(29)	—	—	—	(28)	—	(28)
Treasury stock activity, net	—	—	—	—	(305)	—	(305)	—	(305)
Proceeds from Altus transaction	—	—	222	—	—	—	222	406	628
Compensation expense	—	—	160	—	—	—	160	—	160
Other	—	—	5	—	—	—	5	—	5
BALANCE AT DECEMBER 31, 2018	$ —	$ 260	$ 12,106	$ (2,048)	$ (3,192)	$ 4	$ 7,130	$ 1,682	$ 8,812
Net loss attributable to common stock	—	—	—	(3,553)	—	—	(3,553)	—	(3,553)
Net income attributable to noncontrolling interest - Egypt	—	—	—	—	—	—	—	167	167
Net loss attributable to noncontrolling interest - Altus	—	—	—	—	—	—	—	(334)	(334)
Issuance of Altus Preferred Units	517	—	—	—	—	—	—	—	—
Net income attributable to Altus Preferred Unit limited partners	38	—	—	—	—	—	—	—	—
Distributions to noncontrolling interest - Egypt	—	—	—	—	—	—	—	(305)	(305)
Pension & Postretirement benefit plans, net of tax	—	—	—	—	—	13	13	—	13
Common dividends ($1.00 per share)	—	—	(376)	—	—	—	(376)	—	(376)
Common stock activity, net	—	1	(22)	—	—	—	(21)	—	(21)
Compensation expense	—	—	61	—	—	—	61	—	61
Other	—	—	—	—	2	(1)	1	—	1
BALANCE AT DECEMBER 31, 2019	$ 555	$ 261	$ 11,769	$ (5,601)	$ (3,190)	$ 16	$ 3,255	$ 1,210	$ 4,465

The accompanying notes to consolidated financial statements are an integral part of this statement.

Nature of Operations

Apache Corporation (Apache or the Company) is an independent energy company that explores for, develops, and produces natural gas, crude oil, and natural gas liquids. The Company has exploration and production operations in three geographic areas: the United States (U.S.), Egypt, and offshore the U.K. in the North Sea (North Sea). Apache also has exploration interests in Suriname and other international locations that may, over time, result in reportable discoveries and development opportunities. Apache's midstream business is operated by Altus Midstream Company through its subsidiary Altus Midstream LP (collectively, Altus), which owns, develops, and operates a midstream energy asset network in the Permian Basin of West Texas, anchored by midstream service contracts to Apache. Additionally, Altus owns equity interests in a total of four Permian Basin pipelines that will access various points along the Texas Gulf Coast, providing it with fully integrated, wellhead-to-water connectivity.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Accounting policies used by Apache and its subsidiaries reflect industry practices and conform to accounting principles generally accepted in the U.S. (GAAP). The Company's financial statements for prior periods include reclassifications that were made to conform to the current-year presentation. Significant accounting policies are discussed below.

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of Apache and its subsidiaries after elimination of intercompany balances and transactions. The Company's undivided interests in oil and gas exploration and production ventures and partnerships are proportionately consolidated.

The Company consolidates all other investments in which, either through direct or indirect ownership, Apache has more than a 50 percent voting interest or controls the financial and operating decisions. Noncontrolling interests represent third-party ownership in the net assets of a consolidated Apache subsidiary and are reflected separately in the Company's financial statements. Sinopec International Petroleum Exploration and Production Corporation (Sinopec) owns a one-third minority participation in Apache's Egypt oil and gas business as a noncontrolling interest, which is reflected as a separate component of equity in Apache's consolidated balance sheet.

Additionally, third-party investors own a minority interest of approximately 21 percent of Altus Midstream Company (ALTM), which is reflected as a separate noncontrolling interest component of equity in Apache's consolidated balance sheet. Apache consolidates the activities of ALTM, which qualifies as a variable interest entity (VIE) under GAAP. Apache has concluded that it is the primary beneficiary of the VIE, as defined in the accounting standards, since Apache has the power, through its ownership, to direct those activities that most significantly impact the economic performance of ALTM and the obligation to absorb losses or the right to receive benefits that could be potentially significant to ALTM. This conclusion was based on a qualitative analysis that considered ALTM's governance structure, the commercial agreements between ALTM, Altus Midstream LP, and Apache, and the voting rights established between the members, which provide Apache with the ability to control the operations of Altus. On June 12, 2019, Altus Midstream LP issued and sold Series A Cumulative Redeemable Preferred Units (the Preferred Units) through a private offering that admitted additional limited partners with separate rights for the Preferred Unit holders. For further details on the terms of the Preferred Units and rights of the holders, refer to Note 13—Redeemable Noncontrolling Interest - Altus.

Investments in which Apache holds less than 50 percent of the voting interest are typically accounted for under the equity method of accounting, with the balance recorded separately as "Equity method interests" in Apache's consolidated balance sheet and results of operations recorded as a component of "Other" under "Revenues and Other" in the Company's statement of consolidated operations. Refer to Note 6—Equity Method Interests for more detail.

Use of Estimates

Preparation of financial statements in conformity with GAAP and disclosure of contingent assets and liabilities requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The Company bases its estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about carrying values of assets and liabilities that are not readily apparent from other sources. Apache evaluates its estimates and assumptions on a regular basis. Actual results may differ from these estimates and assumptions used in preparation of its financial statements and changes in these estimates are recorded when known. Significant estimates with regard to these financial statements include the fair value determination of acquired assets and liabilities (see Note 2—Acquisitions and Divestitures), the estimate of proved oil and gas reserves and related present value estimates of future net cash flows therefrom (see Note 18—Supplemental Oil and Gas Disclosures (Unaudited)), the assessment of asset retirement obligations (see Note 8—Asset Retirement Obligation), the estimates of fair value for long-lived assets (see "Fair Value Measurements" and "Property and Equipment" sections in this Note 1 below), and the estimate of income taxes (see Note 10—Income Taxes).

Fair Value Measurements

Certain assets and liabilities are reported at fair value on a recurring basis in Apache's consolidated balance sheet. Accounting Standards Codification (ASC) 820-10-35, "Fair Value Measurement" (ASC 820), provides a hierarchy that prioritizes and defines the types of inputs used to measure fair value. The fair value hierarchy gives the highest priority to Level 1 inputs, which consist of unadjusted quoted prices for identical instruments in active markets. Level 2 inputs consist of quoted prices for similar instruments. Level 3 valuations are derived from inputs that are significant and unobservable; hence, these valuations have the lowest priority.

The valuation techniques that may be used to measure fair value include a market approach, an income approach, and a cost approach. A market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities. An income approach uses valuation techniques to convert future amounts to a single present amount based on current market expectations, including present value techniques, option-pricing models, and the excess earnings method. The cost approach is based on the amount that currently would be required to replace the service capacity of an asset (replacement cost).

Recurring fair value measurements are presented in further detail in Note 4—Derivative Instruments and Hedging Activities, Note 9—Debt and Financing Costs, Note 12—Retirement and Deferred Compensation Plans, and Note 13—Redeemable Noncontrolling Interest - Altus.

Apache also uses fair value measurements on a nonrecurring basis when certain qualitative assessments of its assets indicate a potential impairment. The following table presents a summary of asset impairments recorded in connection with fair value assessments for 2019, 2018, and 2017:

	For the Year Ended December 31,		
	2019	2018	2017
	(In millions)		
Oil and gas proved property	$ 1,484	$ 328	$ —
GPT facilities	1,295	56	—
Equity method investment	—	113	—
Divested unproved properties and leasehold	149	10	—
Inventory and other	21	4	8
Total Impairments	$ 2,949	$ 511	$ 8

For the year ended December 31, 2019, the Company recorded asset impairments totaling $2.9 billion in connection with fair value assessments. During the fourth quarter of 2019, following a material reduction to planned investment in Apache's Alpine High development, the Company recorded impairments totaling $1.4 billion for its Alpine High proved properties and upstream infrastructure which were written down to their fair values. These impairments are discussed in further detail below in "Property and Equipment - Oil and Gas Property."

During the fourth quarter of 2019 Altus separately assessed its long-lived infrastructure assets for impairment based on expected reductions to future throughput volumes from Alpine High. Altus subsequently recorded impairments totaling $1.3 billion on its gathering, processing, and transmission (GPT) facilities. In the third quarter of 2019, Altus also recorded an impairment charge of $9 million related to the cancellation of construction on a previously planned compressor station. These impairments are discussed in further detail below in "Property and Equipment - Gathering, Processing, and Transmission Facilities."

Separate from the Company's Alpine High and Altus impairments, Apache entered into agreements to sell certain of its assets in the western Anadarko Basin in Oklahoma and Texas. As a result of these agreements, a separate impairment analysis was performed for each of the assets within the disposal groups. The analyses were based on the agreed-upon proceeds less costs to sell for the transaction, a Level 1 fair value measurement. The carrying value of the net assets to be divested exceeded the fair value implied by the expected net proceeds, resulting in impairments in the second and fourth quarters of 2019 totaling $255 million, including $101 million on the Company's proved properties, $149 million on its unproved properties, and $5 million on other working capital. For more information regarding this transaction, refer to Note 2—Acquisitions and Divestitures.

For the year ended December 31, 2018, the Company recorded asset impairments totaling $511 million in connection with fair value assessments. Impairments totaling $328 million and $56 million were recorded for proved properties, and a gathering and processing facility in Oklahoma, respectively, which were written down to their fair values. These impairments are discussed in further detail below in "Property and Equipment." During the third quarter of 2018, Apache agreed to sell certain of its unproved properties offshore the U.K. in the North Sea (North Sea). As a result, the Company performed a fair value assessment of the properties and recorded a $10 million impairment on the carrying values of the associated capitalized exploratory well costs. The fair value of the impaired assets was determined using the negotiated sales price, a Level 1 fair value measurement. Also in 2018, the Company recorded $113 million for the impairment of an equity method investment in the U.S. based on a negotiated sales price and $4 million for inventory write-downs in the U.S. for obsolescence.

For the year ended December 31, 2017, the Company recorded asset impairments totaling $8 million in connection with fair value assessments. In 2016, the U.K. government enacted Finance Bill 2016, providing tax relief to exploration and production (E&P) companies operating in the U.K. North Sea. Under the enacted legislation, the U.K. Petroleum Revenue Tax (PRT) rate was reduced to zero from the previously enacted 35 percent rate in effect from January 1, 2016. PRT expense ceased prospectively from that date. During 2017, the Company fully impaired the aggregate remaining value of the recoverable PRT decommissioning asset of $8 million that would have been realized from future abandonment activities. The recoverable value of the PRT decommissioning asset was estimated using the income approach. The expected future cash flows used in the determination were based on anticipated spending and timing of planned future abandonment activities for applicable fields, considering all available information at the date of review. Apache has classified this fair value measurement as Level 3 in the fair value hierarchy.

Cash and Cash Equivalents

The Company considers all highly liquid short-term investments with a maturity of three months or less at the time of purchase to be cash equivalents. These investments are carried at cost, which approximates fair value. As of December 31, 2019 and 2018, Apache had $247 million and $714 million, respectively, of cash and cash equivalents. As of December 31, 2019, and 2018, the Company had no restricted cash. Approximately $6 million and $450 million of the cash and cash equivalents balance at December 31, 2019 and 2018, respectively, was held by Altus.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are stated at the historical carrying amount net of write-offs and an allowance for doubtful accounts. The carrying amount of Apache's accounts receivable approximates fair value because of the short-term nature of the instruments. The Company routinely assesses the collectability of all material trade and other receivables. Many of Apache's receivables are from joint interest owners on properties Apache operates. The Company may have the ability to withhold future revenue disbursements to recover any non-payment of these joint interest billings. The Company accrues a reserve on a receivable when, based on the judgment of management, it is probable that a receivable will not be collected and the amount of any reserve may be reasonably estimated. As of December 31, 2019, 2018, and 2017, the Company had an allowance for doubtful accounts of $88 million, $92 million, and $84 million, respectively.

The following table describes changes to the Company's allowance for doubtful accounts for 2019, 2018, and 2017:

	2019	2018	2017
		(In millions)	
Allowance for doubtful accounts at beginning of year	$ 92	$ 84	$ 93
Additional provisions for the year	3	9	4
Uncollectible accounts written off net of recoveries	(7)	(1)	(13)
Allowance for doubtful accounts at end of year	$ 88	$ 92	$ 84

Inventories

Inventories consist principally of tubular goods and equipment and are stated at the lower of weighted-average cost or net realizable value. Oil produced but not sold, primarily in the North Sea, is also recorded to inventory and is stated at the lower of the cost to produce or net realizable value.

Property and Equipment

The carrying value of Apache's property and equipment represents the cost incurred to acquire the property and equipment, including capitalized interest, net of any impairments. For business combinations, property and equipment cost is based on the fair values at the acquisition date.

Oil and Gas Property

The Company follows the successful efforts method of accounting for its oil and gas property. Under this method of accounting, exploration costs such as exploratory geological and geophysical costs, delay rentals, and exploration overhead are expensed as incurred. All costs related to production, general corporate overhead, and similar activities are expensed as incurred. If an exploratory well provides evidence to justify potential development of reserves, drilling costs associated with the well are initially capitalized, or suspended, pending a determination as to whether a commercially sufficient quantity of proved reserves can be attributed to the area as a result of drilling. This determination may take longer than one year in certain areas depending on, among other things, the amount of hydrocarbons discovered, the outcome of planned geological and engineering studies, the need for additional appraisal drilling activities to determine whether the discovery is sufficient to support an economic development plan, and government sanctioning of development activities in certain international locations. At the end of each quarter, management reviews the status of all suspended exploratory well costs in light of ongoing exploration activities; in particular, whether the Company is making sufficient progress in its ongoing exploration and appraisal efforts or, in the case of discoveries requiring government sanctioning, whether development negotiations are underway and proceeding as planned. If management determines that future appraisal drilling or development activities are unlikely to occur, associated suspended exploratory well costs are expensed.

Acquisition costs of unproved properties are assessed for impairment at least annually and are transferred to proved oil and gas properties to the extent the costs are associated with successful exploration activities. Significant undeveloped leases are assessed individually for impairment based on the Company's current exploration plans. Unproved oil and gas properties with individually insignificant lease acquisition costs are amortized on a group basis over the average lease term at rates that provide for full amortization of unsuccessful leases upon lease expiration or abandonment. Costs of expired or abandoned leases are charged to exploration expense, while costs of productive leases are transferred to proved oil and gas properties. Costs of maintaining and retaining unproved properties, as well as amortization of individually insignificant leases and impairment of unsuccessful leases, are included in exploration costs in the statement of consolidated operations.

Costs to develop proved reserves, including the costs of all development wells and related equipment used in the production of crude oil and natural gas, are capitalized. Depreciation of the cost of proved oil and gas properties is calculated using the unit-of-production (UOP) method. The UOP calculation multiplies the percentage of estimated proved reserves produced each quarter by the carrying value of associated proved oil and gas properties. The reserve base used to calculate depreciation for leasehold acquisition costs and the cost to acquire proved properties is the sum of proved developed reserves and proved undeveloped reserves. The reserve base used to calculate the depreciation for capitalized well costs is the sum of proved developed reserves only. Estimated future dismantlement, restoration and abandonment costs, net of salvage values, are included in the depreciable cost.

Oil and gas properties are grouped for depreciation in accordance with ASC 932 "Extractive Activities—Oil and Gas." The basis for grouping is a reasonable aggregation of properties with a common geological structural feature or stratigraphic condition, such as a reservoir or field.

When circumstances indicate that the carrying value of proved oil and gas properties may not be recoverable, the Company compares unamortized capitalized costs to the expected undiscounted pre-tax future cash flows for the associated assets grouped at the lowest level for which identifiable cash flows are independent of cash flows of other assets. If the expected undiscounted pre-tax future cash flows, based on Apache's estimate of future crude oil and natural gas prices, operating costs, anticipated production from proved reserves and other relevant data, are lower than the unamortized capitalized cost, the capitalized cost is reduced to fair value. Fair value is generally estimated using the income approach described in ASC 820. If applicable, the Company utilizes prices and other relevant information generated by market transactions involving assets and liabilities that are identical or comparable to the item being measured as the basis for determining fair value. The expected future cash flows used for impairment reviews and related fair value calculations are typically based on judgmental assessments of future production volumes, commodity prices, operating costs, and capital investment plans, considering all available information at the date of review, a Level 3 fair value measurement.

The following table represents non-cash impairments of the carrying value of the Company's proved and unproved properties for 2019, 2018, and 2017:

	For the Year Ended December 31,		
	2019	2018	2017
		(In millions)	
Proved Properties:			
U.S.	$ 1,484	$ 265	$ —
Egypt	—	63	—
Total Proved	$ 1,484	$ 328	$ —
Unproved Properties:			
U.S.	$ 760	$ 96	$ 244
Egypt	8	—	—
North Sea	—	128	—
Canada	—	—	2
Total Unproved	$ 768	$ 224	$ 246

Proved properties impaired had aggregate fair values as of the most recent date of impairment of $628 million and $323 million for 2019 and 2018, respectively.

On the statement of consolidated operations, unproved leasehold impairments are typically recorded as a component of "Exploration" expense; however, in 2019, unproved impairments of $149 million were recorded in "Impairments" in connection with an agreement to sell certain non-core leasehold properties in Oklahoma and Texas. In 2018, unproved impairments of $10 million were recorded in "Impairments" in connection with an agreement to sell certain unproved properties in the North Sea. No unproved leasehold impairments were recorded in "Impairments" during 2017.

Gains and losses on divestitures of the Company's oil and gas properties are recognized in the statement of consolidated operations upon closing of the transaction. See Note 2—Acquisitions and Divestitures for more detail.

Gathering, Processing, and Transmission Facilities

GPT facilities totaled $799 million and $1.9 billion at December 31, 2019 and 2018, respectively, with accumulated depreciation for these assets totaling $310 million and $264 million for the respective periods. GPT facilities are depreciated on a straight-line basis over the estimated useful lives of the assets. The estimation of useful life takes into consideration anticipated production lives from the fields serviced by the GPT assets, whether Apache-operated or third party, as well as potential development plans by Apache for undeveloped acreage within or in close proximity to those fields.

The Company assesses the carrying amount of its GPT facilities whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. If the carrying amount of these facilities is more than the sum of the undiscounted cash flows, an impairment loss is recognized for the excess of the carrying value over its fair value.

As part of Apache's fourth quarter 2019 capital planning review, the Company decided to materially reduce its planned investment in the Alpine High play. Altus management subsequently assessed its long-lived infrastructure assets for impairment given the expected reduction to future throughput volumes and recorded impairments of $1.3 billion on its gathering, processing, and transmission assets. The fair values of the impaired assets were determined to be $203 million as of the time of the impairment and were estimated using the income approach. The income approach considered internal estimates of future throughput volumes, processing rates, and costs. These assumptions were applied to develop future cash flow projections that were then discounted to estimated fair value, using discount rates believed to be consistent with those applied by market participants. In the third quarter of 2019, Altus separately recorded an impairment charge of $9 million related to the cancellation of construction on a previously planned compressor station based on estimated sales proceeds for the associated equipment. Apache has classified these non-recurring fair value measurements as Level 3 in the fair value hierarchy.

During 2018, the Company recorded impairments of the entire net book value of certain GPT assets in the U.S. in the amount of $56 million associated with a proposed divestiture package. During 2017, the Company recorded no impairments on GPT assets.

The costs of GPT facilities sold or otherwise disposed of and associated accumulated depreciation are removed from Apache's consolidated financial statements, and the resulting gain or loss is reflected in "Gain on divestitures" under "Revenues and Other" in the Company's statement of consolidated operations. During 2017, Apache recorded a gain totaling $6 million associated with the Company's divestiture of its 30.28 percent interest in the Scottish Area Gas Evacuation (SAGE) system and its 60.56 percent interest in the Beryl pipeline in the North Sea. For more information regarding this transaction, please refer to Note 2—Acquisitions and Divestitures. No gain or loss on the sales of GPT facilities was recognized during 2019 or 2018.

Other Property and Equipment

Other property and equipment includes computer software and equipment, buildings, vehicles, furniture and fixtures, land, and other equipment. These assets are depreciated on a straight-line basis over the estimated useful lives of the assets, which range from 3 to 20 years. Other property and equipment totaled $1.1 billion at each of December 31, 2019 and 2018, with accumulated depreciation for these assets totaling $817 million and $786 million at December 31, 2019 and 2018, respectively.

Asset Retirement Costs and Obligations

The initial estimated asset retirement obligation related to property and equipment and subsequent revisions are recorded as a liability at fair value, with an offsetting asset retirement cost recorded as an increase to the associated property and equipment on the consolidated balance sheet. Revisions in estimated liabilities can result from changes in estimated inflation rates, changes in service and equipment costs and changes in the estimated timing of an asset's retirement. Asset retirement costs are depreciated using a systematic and rational method similar to that used for the associated property and equipment. Accretion expense on the liability is recognized over the estimated productive life of the related assets.

Capitalized Interest

For significant projects, interest is capitalized as part of the historical cost of developing and constructing assets. Significant oil and gas investments in unproved properties actively being explored, significant exploration and development projects that have not commenced production, significant midstream development activities that are in progress, and investments in equity method affiliates that are undergoing the construction of assets that have not commenced principal operations qualify for interest capitalization. Interest is capitalized until the asset is ready for service. Capitalized interest is determined by multiplying the Company's weighted-average borrowing cost on debt by the average amount of qualifying costs incurred. Once an asset subject to interest capitalization is completed and placed in service, the associated capitalized interest is expensed through depreciation or impairment.

Goodwill

Goodwill represents the excess of the purchase price of an entity over the estimated fair value of the assets acquired and liabilities assumed, and it is recorded in "Deferred charges and other" in the Company's consolidated balance sheet. The Company assesses the carrying amount of goodwill by testing for impairment annually and when impairment indicators arise. The impairment test requires allocating goodwill and all other assets and liabilities to assigned reporting units. Apache assesses each country as a reporting unit, with Egypt being the only reporting unit to have associated goodwill. The fair value of the reporting unit is determined and compared to the book value of the reporting unit. If the fair value of the reporting unit is less than the book value, including goodwill, then goodwill is written down to its implied fair value through a charge to expense.

When there is a disposal of a reporting unit or a portion of a reporting unit that constitutes a business, goodwill associated with that business is included in the carrying amount to determine the gain or loss on disposal. The amount of goodwill allocated to the carrying amount of a business can significantly impact the amount of gain or loss recognized on the sale of that business. The amount of goodwill to be included in that carrying amount is based on the relative fair value of the business to be disposed of and the portion of the reporting unit that will be retained.

There were no changes to goodwill for the years ended 2019, 2018, and 2017. The balance in goodwill was $87 million for each of the years ended 2019, 2018, and 2017.

Commitments and Contingencies

Accruals for loss contingencies arising from claims, assessments, litigation, environmental and other sources are recorded when it is probable that a liability has been incurred and the amount can be reasonably estimated. These accruals are adjusted as additional information becomes available or circumstances change. For more information regarding loss contingencies, please refer to Note 11—Commitments and Contingencies.

Revenue Recognition

On January 1, 2018, Apache adopted Accounting Standards Update (ASU) 2014-09, “Revenue from Contracts with Customers (Topic 606),” using the modified retrospective method on all contracts at the date of initial application. No cumulative effect adjustment to the opening balance of retained earnings was recognized. As a result of the adoption, gas processing fees previously netted in revenue are recorded as “Gathering, processing, and transmission” in the Company’s statement of consolidated operations upon adoption. This accounting treatment has no impact on net income (loss), the consolidated balance sheet, the statement of consolidated cash flows, nor the statement of consolidated changes in equity and noncontrolling interest. Prior comparative periods have not been restated and continue to be reported under the accounting standards in effect for those periods.

Upstream

The Company’s upstream oil and gas segments primarily generate revenue from contracts with customers from the sale of its crude oil, natural gas, and natural gas liquids production volumes. Because the Company’s production fluctuates with potential operational issues, it is occasionally necessary to purchase third-party oil and gas to fulfill sales obligations and commitments. Sales proceeds related to third-party oil and gas purchases are also classified as revenue from customers. Under these short-term commodity sales contracts, the physical delivery of each unit of quantity represents a single, distinct performance obligation on behalf of the Company. Contract prices are determined based on market-indexed prices, adjusted for quality, transportation, and other market-reflective differentials. Revenue is measured by allocating an entirely variable market price to each performance obligation and recognized at a point in time when control is transferred to the customer. The Company considers a variety of facts and circumstances in assessing the point of control transfer, including but not limited to: whether the purchaser can direct the use of the hydrocarbons, the transfer of significant risks and rewards, and the Company’s right to payment. Control typically transfers to customers upon the physical delivery at specified locations within each contract and the transfer of title.

The Company’s Egyptian operations are conducted pursuant to production sharing contracts under which the contractor partners (Contractors) pay all operating and capital costs for exploring and developing defined concessions. A percentage of the production, generally up to 40 percent, is available to Contractors to recover these operating and capital costs over contractually defined periods. The balance of the production is split among the Contractors and the Egyptian General Petroleum Corporation (EGPC) on a contractually defined basis. Additionally, the Contractors’ income taxes, which remain the liability of the Contractors under domestic law, are paid by EGPC on behalf of the Contractors out of EGPC’s production entitlement. Income taxes paid to the Arab Republic of Egypt on behalf of Apache as Contractor are recognized as oil and gas sales revenue and income tax expense and reflected as production and estimated reserves. Revenues related to Egypt’s tax volumes are considered revenue from a non-customer.

Midstream

The Company’s Altus segment generates revenue from contracts with its customer from its gathering, compression, processing, and transmission services provided on Apache’s natural gas and natural gas liquid production volumes. Under these long-term commercial service contracts, providing the related service represents a single, distinct performance obligation on behalf of Altus that is satisfied over time. In accordance with the terms of these agreements, Altus receives a fixed fee for each contract year, subject to yearly fee escalation recalculations. Revenue is measured using the output method and recognized in the amount to which Altus has the right to invoice, as performance completed to date corresponds directly with the value to its customers. For all periods presented, all midstream segment revenues were attributable to sales between Altus and Apache. All midstream revenues between Apache and Altus are fully eliminated upon consolidation.

Consolidated Revenues from Contracts with Customers

The following table represents consolidated revenues from contracts with customers for the years ended December 31, 2019 and 2018:

	For the Year Ended December 31,	
	2019	2018
	(In millions)	
Oil and gas production revenues from customers	$ 6,315	$ 7,348
Less: oil and gas production revenues from non-customer[(1)]	(451)	(652)
Purchased oil and gas sales from customers[(2)]	176	357
Revenues from contracts with customers	$ 6,040	$ 7,053

(1) Oil and gas production revenues from non-customer represents income taxes paid to the Arab Republic of Egypt by EGPC on behalf of the Company. Revenue and associated expenses related to such tax volumes are recorded as “Oil and gas production revenues” and “Current income tax provision,” respectively, in the Company’s statement of consolidated operations.
(2) Purchased oil and gas sales represent proceeds from the sale of commodity volumes which were purchased from third parties to fulfill volume commitments. Proceeds and associated costs related to such volumes are both recorded as “Other” under “Revenues and Other” in the Company’s statement of consolidated operations. Associated purchase costs totaled $142 million and $340 million for the years ended December 31, 2019 and 2018, respectively.

Refer to Note 17—Business Segment Information for a disaggregation of revenue by product and reporting segment.

Payment Terms and Contract Balances

Payment terms under all contracts with customers are typically due and received within a short-term period of one year or less, after physical delivery of the product or service has been rendered. Receivables from contracts with customers, net of allowance for doubtful accounts, totaled $945 million and $1.0 billion as of December 31, 2019 and 2018, respectively.

In accordance with the provisions of ASC 606, variable market prices for each short-term commodity sale are allocated entirely to each performance obligation as the terms of payment relate specifically to the Company’s efforts to satisfy its obligations. As such, we have elected the practical expedients available under the standard to not disclose the aggregate transaction price allocated to unsatisfied, or partially unsatisfied, performance obligations as of the end of the reporting period.

Derivative Instruments and Hedging Activities

Apache periodically enters into derivative contracts to manage its exposure to commodity price, interest rate, and/or foreign exchange risk. These derivative contracts, which are generally placed with major financial institutions, may take the form of forward contracts, futures contracts, swaps, or options.

Apache records all derivative instruments, other than those that meet the normal purchases and sales exception, on the balance sheet as either an asset or liability measured at fair value. The Company does not apply hedge accounting to any of its derivative instruments. As a result, gains and losses from the change in fair value of derivative instruments are reported in current-period income as “Other” under “Revenues and Other” in the statement of consolidated operations. For more information, please refer to Note 4—Derivative Instruments and Hedging Activities.

Income Taxes

Apache records deferred tax assets and liabilities to account for the expected future tax consequences of events that have been recognized in the financial statements and tax returns. The Company routinely assesses the ability to realize its deferred tax assets. If the Company concludes that it is more likely than not that some or all of the deferred tax assets will not be realized, the tax asset is reduced by a valuation allowance. Numerous judgments and assumptions are inherent in the determination of future taxable income, including factors such as future operating conditions (particularly as related to prevailing oil and gas prices) and changing tax laws.

Foreign Currency Transaction Gains and Losses

The U.S. dollar is the functional currency for each of Apache’s international operations. The functional currency is determined country-by-country based on relevant facts and circumstances of the cash flows, commodity pricing environment and financing arrangements in each country. Foreign currency transaction gains and losses arise when monetary assets and liabilities denominated in foreign currencies are remeasured to their U.S. dollar equivalent at the exchange rate in effect at the end of each reporting period.

Foreign currency gains and losses also arise when revenue and disbursement transactions denominated in a country's local currency are converted to a U.S. dollar equivalent based on the average exchange rates during the reporting period.

Foreign currency transaction gains and losses related to current taxes payable and deferred tax assets and liabilities are recorded as components of the provision for income taxes. All other foreign currency transaction gains and losses are reflected in "Other" under "Revenues and Other" in the statement of consolidated operations. The Company's other foreign currency gains and losses netted to losses of $1 million, $1 million, and $11 million in 2019, 2018, and 2017, respectively.

Insurance Coverage

The Company recognizes an insurance receivable when collection of the receivable is deemed probable. Any recognition of an insurance receivable is recorded by crediting and offsetting the original charge. Any differential arising between insurance recoveries and insurance receivables is recorded as a capitalized cost or as an expense, consistent with its original treatment.

Earnings Per Share

The Company's basic earnings per share (EPS) amounts have been computed based on the weighted-average number of shares of common stock outstanding for the period. Diluted EPS reflects potential dilution, using the treasury stock method, which assumes that options were exercised and restricted stock was fully vested. The impact to net income (loss) attributable to common stock on an assumed conversion of the redeemable noncontrolling Preferred Units interest in Altus Midstream LP were anti-dilutive for the year ended December 31, 2019.

Stock-Based Compensation

Apache grants various types of stock-based awards including stock options, restricted stock, cash-settled restricted stock units, and performance-based awards. Stock compensation equity awards granted are valued on the date of grant and are expensed over the required vesting service period. Cash-settled awards are recorded as a liability based on the Company's stock price and remeasured at the end of each reporting period over the vesting terms. The Company has elected to account for forfeitures as they occur rather than estimate expected forfeitures. The Company's stock-based compensation plans and related accounting policies are defined and described more fully in Note 14—Capital Stock.

Treasury Stock

The Company follows the weighted-average-cost method of accounting for treasury stock transactions.

New Pronouncements Issued But Not Yet Adopted

In June 2016, the Financial Accounting Standards Board (FASB) issued ASU 2016-13, "Financial Instruments-Credit Losses." The standard changes the impairment model for trade receivables, held-to-maturity debt securities, net investments in leases, loans, and other financial assets measured at amortized cost. This ASU requires the use of a new forward-looking "expected loss" model compared to the current "incurred loss" model, resulting in accelerated recognition of credit losses. This update is effective for the Company beginning in the first quarter of 2020. The Company has completed its initial assessment of credit losses and continues to evaluate and monitor standard setting activity. The adoption and implementation of this ASU will not have a material impact on its financial statements.

In August 2018, the FASB issued ASU 2018-13, "Disclosure Framework: Changes to the Disclosure Requirements for Fair Value Measurement," which changes the disclosure requirements for fair value measurements by removing, adding, and modifying certain disclosures. This update is effective for the Company beginning in the first quarter of 2020. The adoption and implementation of this ASU will not have a material impact on the disclosures of its financial statements.

In August 2018, the FASB issued ASU 2018-15, "Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract." This pronouncement clarifies the requirements for capitalizing implementation costs in cloud computing arrangements and aligns them with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. This update is effective for the Company beginning in the first quarter of 2020. The adoption and implementation of this ASU will not have a material impact on its financial statements.

In August 2018, the FASB issued ASU 2018-14, "Disclosure Framework: Changes to the Disclosure Requirements for Defined Benefit Plans," which eliminates, modifies, and adds disclosure requirements for defined benefit plans. This update is effective for the Company beginning in the first quarter of 2021. The Company does not expect the adoption of this ASU to have a material impact on its financial statements.

In December 2019, the FASB issued ASU 2019-12, “Simplifying the Accounting for Income Taxes.” This pronouncement is part of the Simplification Initiative and simplifies the accounting for income taxes by removing certain exceptions to the general principles of ASC Topic 740 “Income Taxes.” In addition, the amendment improves consistent application of and simplifies GAAP for other areas of ASC Topic 740 by clarifying and amending existing guidance. This update is effective for the Company beginning in the first quarter of 2021, with early adoption permitted. The Company is currently evaluating the new guidance and does not believe this standard will have a material impact on its financial statements.

2. ACQUISITIONS AND DIVESTITURES

2019 Activity

U.S. Divestitures

In the third quarter of 2019, Apache completed the sale of non-core assets in the western Anadarko Basin of Oklahoma and Texas for aggregate cash proceeds of approximately $322 million and the assumption of asset retirement obligations of $49 million. These assets met the criteria to be classified as held for sale in the second quarter of 2019. Accordingly, the Company performed a fair value assessment of the assets and recorded impairments of $240 million to the carrying value of proved and unproved oil and gas properties, other fixed assets, and working capital. The transaction closed in the third quarter of 2019, and the Company recognized a $7 million loss in association with the sale.

In the second quarter of 2019, Apache completed the sale of certain non-core assets in Oklahoma that had a net carrying value of $206 million for aggregate cash proceeds of approximately $223 million. The Company recognized a $17 million gain in association with the sale.

During 2019, the Company also completed the sale of certain other non-core producing assets, GPT assets, and leasehold acreage, primarily in the Permian region, in multiple transactions for total cash proceeds of $73 million. The Company recognized a net gain of approximately $33 million upon closing of these transactions.

Suriname Joint Venture Agreement

In December 2019, Apache entered into a joint venture agreement with Total S.A. to explore and develop Block 58 offshore Suriname. Under the terms of the agreement, Apache and Total S.A. will each hold a 50 percent working interest in Block 58. Apache will operate the drilling of the first three exploration wells in the block (and may operate a fourth), including the Maka Central-1 well, and subsequently transfer operatorship to Total. In connection with the agreement, Apache received $100 million from Total S.A. upon closing, which was applied against the carrying value of its Suriname properties, and $75 million upon satisfying certain closing conditions in the first quarter of 2020 for reimbursement of 50 percent of all costs incurred on Block 58 to date.

Apache will also receive various other forms of consideration, including $5 billion of cash carry on Apache’s first $7.5 billion of appraisal and development capital, 25 percent cash carry on all of Apache’s appraisal and development capital beyond the first $7.5 billion, a $75 million cash payment upon achieving first oil production, and future contingent royalty payments from successful joint development projects.

Leasehold, Property, and Other Acquisitions

During 2019, Apache completed leasehold and property acquisitions for total cash consideration of $40 million, primarily in its U.S. onshore regions.

As part of the Altus transaction described below, Apache contributed options to acquire equity interests in five separate third-party pipeline projects to Altus Midstream LP and/or its subsidiaries. As of December 31, 2019, four of the five joint venture equity options had been exercised to acquire various ownership interests in the associated third-party pipeline limited liability entities. For discussion on the Company’s acquisition of equity method interests during the period, refer to Note 6—Equity Method Interests.

2018 Activity

Altus Transaction

In November 2018, Apache completed a transaction with Altus Midstream Company to create a pure-play, Permian Basin to Gulf Coast midstream C-corporation anchored by Apache’s gathering, processing, and transmission assets at Alpine High. Pursuant to the agreement, Apache contributed certain Alpine High midstream assets and options to acquire equity interests in five separate third-party pipeline projects (the Pipeline Options) to Altus and/or its subsidiaries. Altus Midstream Company contributed approximately $628 million of cash, net of transaction expenses. The transaction was accounted for by Altus as a reverse recapitalization. Under this method of accounting, Altus Midstream Company was treated as the "acquired" company, and Apache's contributed assets of approximately $1.1 billion remained at historical cost, with no goodwill or other intangible assets recorded. Apache owns an approximate 79 percent ownership interest in Altus.

Apache fully consolidates the assets and liabilities of Altus in its consolidated financial statements, with a corresponding noncontrolling interest reflected separately. Apache recorded a noncontrolling interest of $406 million upon closing, which is reflected as a separate component of equity in the Company's consolidated balance sheet. This represents approximately 21 percent third party ownership of the net assets in Altus at the time of the transaction. The cash contributions in excess of the noncontrolling interest were recognized as additional paid-in capital.

Other Activity

During 2018, Apache completed the sale of certain non-core assets and leasehold, primarily in the North Sea and Permian regions, in multiple transactions for total cash proceeds of $138 million. The Company recognized gains of approximately $23 million during 2018 upon the closing of these transactions.

Apache completed $133 million of leasehold and property acquisitions during 2018, primarily in its U.S. onshore regions.

2017 Activity

Canada Divestitures

During 2017, Apache announced the sale of its subsidiary Apache Canada Ltd. (ACL) and complete exit of its Canadian operations. On June 30, 2017, Apache completed the sale of its Canadian assets at Midale and House Mountain, located in Saskatchewan and Alberta, for aggregate cash proceeds of approximately $228 million. The Company recognized a $52 million loss during the second quarter of 2017 in association with this sale.

In August of 2017, Apache completed the sale of its remaining Canadian operations for aggregate cash proceeds of approximately $478 million. The Company recognized a $74 million gain upon closing of these transactions in the third quarter of 2017. A summary of the Company's Canadian assets and liabilities at the time of close is detailed below:

		(In millions)
ASSETS:		
Cash	$	46
Other current assets		64
Property, plant & equipment		1,132
Total assets	$	1,242
LIABILITIES:		
Current liabilities, excluding asset retirement obligation	$	120
Asset retirement obligation		780
Other long-term liabilities		46
Total liabilities	$	946

The net carrying value of the assets disposed included a currency translation loss of $109 million, which was recorded in "Accumulated other comprehensive income (loss)" on the Company's consolidated balance sheet at December 31, 2016. The currency translation loss was recognized as a reduction of the net gain on sale during the third quarter of 2017 upon closing of the transactions.

Apache's Canadian operations recorded a pretax loss of $141 million for the year ended 2017.

Other Activity

During 2017, Apache completed the sale of certain non-core assets, primarily leasehold acreage in the Permian and Midcontinent/Gulf Coast regions, in multiple transactions for cash proceeds of $798 million. The Company recognized gains of approximately $605 million during 2017 in connection with these transactions.

Apache completed $188 million of leasehold and property acquisitions during 2017, primarily in its North America onshore regions.

Transaction, Reorganization, and Separation (TRS)

Apache recorded $50 million, $28 million, and $16 million of expenses during 2019, 2018, and 2017, respectively, primarily related to company reorganization, including separation costs, investment banking fees on various divestiture transactions, and other associated costs.

In recent years, the Company has centralized certain operational activities in an effort to capture greater efficiencies through shared services. In light of the continued streamlining of the Company's asset portfolio through divestitures and strategic transactions, in late 2019 management initiated a comprehensive redesign of Apache's organizational structure and operations, which is expected to be substantially completed for the technical functions by the end of the first quarter of 2020. Changes for the corporate support functions will be ongoing through most of 2020. TRS costs incurred in 2019 associated with this reorganization include $26 million and $2 million for employee termination benefits and consulting fees, respectively, which will be paid throughout 2020. Apache expects to incur additional expenses associated with this reorganization throughout 2020; however, reorganization efforts are ongoing, and the Company is unable to reasonably estimate additional costs at this time. The Company also incurred $15 million of expenses for employee termination benefits and office closures associated with other reorganization efforts and $7 million for consulting and legal fees on various transactions throughout 2019.

Charges for 2018 include $22 million for consulting and legal fees related to divestitures and the Altus transaction, and $6 million related to employee separation and other reorganization efforts. Charges for 2017 include $11 million for consulting fees related to divestitures and $5 million related to employee separation, consolidation of office space, and other reorganization efforts.

3. CAPITALIZED EXPLORATORY WELL COSTS

The following summarizes the changes in capitalized exploratory well costs for each of the last three years ended December 31, 2019, 2018, and 2017. Additions pending the determination of proved reserves excludes amounts capitalized and subsequently charged to expense within the same year.

	2019	2018	2017
		(In millions)	
Balance at January 1	$ 159	$ 350	$ 264
Additions pending determination of proved reserves	286	602	477
Divestitures and other	(100)	(82)	(3)
Reclassifications to proved properties	(179)	(647)	(373)
Charged to exploration expense	(25)	(64)	(15)
Balance at December 31	$ 141	$ 159	$ 350

The following provides an aging of capitalized exploratory well costs and the number of projects for which exploratory well costs have been capitalized for a period greater than one year since the completion of drilling at year-end 2019, 2018, and 2017:

	2019	2018	2017
		(In millions)	
Exploratory well costs capitalized for a period of one year or less	$ 108	$ 126	$ 160
Exploratory well costs capitalized for a period greater than one year	33	33	190
Balance at December 31	$ 141	$ 159	$ 350
Number of projects with exploratory well costs capitalized for a period greater than one year	2	2	4

Suspended exploratory well costs capitalized for a period greater than one year since the completion of drilling at December 31, 2019, relate to separate onshore projects in the United States and Egypt. Drilling activity and testing has continued for both projects throughout 2019 and are currently being evaluated for potential development.

Suspended exploratory well costs capitalized for a period greater than one year since the completion of drilling at December 31, 2018, included $28 million related to exploratory drilling in Suriname. In December 2019, Apache entered into a joint venture agreement with Total S.A. selling down 50 percent of its ownership interest in Block 58. In connection with the agreement, proceeds received from Total S.A. upon closing were applied against the carrying value of its Suriname properties.

Suspended exploratory well costs capitalized for a period greater than one year since the completion of drilling at December 31, 2017, included $160 million related to three separate projects in the North Sea. The Seagull assets with exploratory costs of $82 million were divested during 2018, and the remaining two projects were reclassified to proved properties or charged to exploration expense based on management's assessment and development efforts during 2018.

The following table summarizes aging by geographic area of those exploratory well costs that, as of December 31, 2019, have been capitalized for a period greater than one year, categorized by the year in which drilling was completed:

	Total	2018	2017	2016 and Prior
	(In millions)			
United States	$ 24	$ 24	$ —	$ —
Egypt	9	9	—	—
	$ 33	$ 33	$ —	$ —

Projects with suspended exploratory well costs capitalized for a period greater than one year since the completion of drilling are those identified by management as exhibiting sufficient quantities of hydrocarbons to justify potential development. Management is actively pursuing efforts to assess whether reserves can be attributed to these projects.

4. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

Objectives and Strategies

Apache is exposed to fluctuations in crude oil and natural gas prices on the majority of its worldwide production, as well as transactions denominated in foreign currencies. The Company manages the variability in its cash flows by occasionally entering into derivative transactions on a portion of its crude oil and natural gas production and foreign currency transactions. The Company also utilizes various types of derivative financial instruments to manage fluctuations in cash flows resulting from changes in commodity prices or foreign currency values.

Counterparty Risk

The use of derivative instruments exposes the Company to credit loss in the event of nonperformance by the counterparty. To reduce the concentration of exposure to any individual counterparty, Apache utilizes a diversified group of investment-grade rated counterparties, primarily financial institutions, for its derivative transactions. The Company monitors counterparty creditworthiness on an ongoing basis; however, it cannot predict sudden changes in counterparties' creditworthiness. In addition, even if such changes are not sudden, the Company may be limited in its ability to mitigate an increase in counterparty credit risk. Should one of these counterparties not perform, Apache may not realize the benefit of some of its derivative instruments resulting from changes in commodity prices, currency exchange rates, or interest rates.

Derivative Instruments

Commodity Derivative Instruments

As of December 31, 2019, Apache had no open commodity derivative positions.

Foreign Currency Derivative Instruments

Apache has open foreign currency costless collar contracts in GBP/USD for £13.5 million per each calendar month for 2020 with a weighted average floor and ceiling price of $1.26 and $1.38, respectively.

Embedded Derivatives

Altus Preferred Units Embedded Derivative

During the second quarter of 2019, Altus Midstream LP issued and sold Series A Cumulative Redeemable Preferred Units. Certain redemption features (the Redemption Option) embedded within the terms of the Preferred Units require bifurcation and measurement at fair value. For further discussion of this derivative, see "Fair Value Measurements" below and Note 13—Redeemable Noncontrolling Interest - Altus.

Pipeline Capacity Embedded Derivative

During the fourth quarter of 2019, Apache entered into an agreement to assign a portion of its contracted capacity under an existing transportation agreement to a third party. Embedded in this agreement is an arrangement under which Apache has the potential to receive payments calculated based on pricing differentials between Houston Ship Channel and Waha during calendar years 2020 and 2021. This feature requires bifurcation and measurement of the change in market value for each period. Unrealized gains or losses in the fair value of this feature are recorded as “Other” under “Revenues and Other” in the statement of consolidated operations. Any proceeds received during the two-year period will be recorded as a deferred gain and reflected in income over the tenure of the host contract.

Fair Value Measurements

The fair values of the Company’s derivative instruments and pipeline capacity embedded derivative are not actively quoted in the open market. The Company primarily uses a market approach to estimate the fair values of these derivatives on a recurring basis, utilizing futures pricing for the underlying positions provided by a reputable third party, a Level 2 fair value measurement.

The fair value of the Redemption Option, a Level 3 fair value measurement, was based on numerous factors including expected future interest rates using the Black-Karasinski model, the imputed interest rate of Altus, the timing of periodic cash distributions, and dividend yields of the Preferred Units. Increases or decreases in interest rates would result in a higher/lower fair value measurement.

The following table presents the Company’s derivative assets and liabilities measured at fair value on a recurring basis:

	Fair Value Measurements Using					
	Quoted Price in Active Markets (Level 1)	Significant Other Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value	Netting[(1)]	Carrying Amount
			(In millions)			
December 31, 2019						
Assets:						
Pipeline Capacity Embedded Derivative	$ —	$ 8	$ —	$ 8	$ —	$ 8
Foreign Currency Derivative Instruments	—	1	—	1	—	1
Liabilities:						
Preferred Units Embedded Derivative	—	—	103	103	—	103
December 31, 2018						
Assets:						
Commodity Derivative Instruments	$ —	$ 69	$ —	$ 69	$ (14)	$ 55
Liabilities:						
Commodity Derivative Instruments	—	25	—	25	(14)	11

(1) The derivative fair values are based on analysis of each contract on a gross basis, excluding the impact of netting agreements with counterparties.

All derivative instruments are reflected as either assets or liabilities at fair value in the consolidated balance sheet. These fair values are recorded by netting asset and liability positions where counterparty master netting arrangements contain provisions for net settlement. The carrying value of the Company's derivative assets and liabilities and their locations on the consolidated balance sheet are as follows:

	December 31, 2019	December 31, 2018
	(In millions)	
Current Assets: Other current assets	$ 2	$ 55
Noncurrent Assets: Deferred charges and other	7	—
Total Assets	$ 9	$ 55
Current Liabilities: Other current liabilities	$ —	$ 11
Deferred Credits and Other Noncurrent Liabilities: Other	103	—
Total Liabilities	$ 103	$ 11

<u>Derivative Activity Recorded in the Statement of Consolidated Operations</u>

The following table summarizes the effect of derivative instruments on the Company's statement of consolidated operations:

	For the Year Ended December 31,		
	2019	2018	2017
	(In millions)		
Realized gain (loss):			
Derivative settlements, realized gain (loss)	$ 9	$ (81)	$ 24
Amortization of put premium, realized loss	—	(39)	(100)
Unrealized gain (loss)	(44)	103	(59)
Derivative instrument losses, net	$ (35)	$ (17)	$ (135)

Derivative instrument gains and losses are recorded in "Other" under "Revenues and Other" in the Company's statement of consolidated operations. Unrealized gains and losses for derivative activity recorded in the statement of consolidated operations are reflected in the statement of consolidated cash flows as a component of "Other" in "Adjustments to reconcile net income (loss) to net cash provided by operating activities."

5. OTHER CURRENT ASSETS

The following table provides detail of the Company's other current assets as of December 31, 2019 and December 31, 2018:

	December 31, 2019	December 31, 2018
	(In millions)	
Inventories	$ 502	$ 401
Drilling advances	92	218
Prepaid assets and other	58	160
Total Other current assets	$ 652	$ 779

6. EQUITY METHOD INTERESTS

Apache, through its ownership of Altus, has the following equity method interests in four Permian Basin long-haul pipeline entities which are accounted for under the equity method of accounting. For each of the equity method interests, Altus has the ability to exercise significant influence based on certain governance provisions and its participation in activities and decisions that impact the management and economic performance of the equity method interests.

	December 31, 2019		December 31, 2018	
	Interest	Amount	Interest	Amount
		($ in millions)		
Gulf Coast Express Pipeline LLC	16.0%	$ 291	15.0%	$ 91
EPIC Crude Holdings, LP	15.0%	163	—	—
Permian Highway Pipeline LLC	26.7%	311	—	—
Shin Oak Pipeline (Breviloba, LLC)	33.0%	493	—	—
		$ 1,258		$ 91

As of December 31, 2019 and December 31, 2018, unamortized basis differences included in the equity method interest balances were $30 million and $6 million, respectively. These amounts represent differences in contributions to date and Altus' underlying equity in the separate net assets within the financial statements of the respective entities. Unamortized basis differences are amortized into net income over the useful lives of the underlying pipeline assets when they are placed into service.

The following table presents the activity in Altus' equity method interests for the year ended December 31, 2019:

	Gulf Coast Express Pipeline LLC	EPIC Crude Holdings, LP	Permian Highway Pipeline LLC	Breviloba, LLC	Total(2)
			(In millions)		
Balance at December 31, 2018	$ 91	$ —	$ —	$ —	$ 91
Acquisitions	15	52	162	442	671
Capital contributions	184	123	147	47	501
Distributions	(16)	—	—	(9)	(25)
Capitalized interest(1)	—	—	2	—	2
Equity income (loss), net	17	(11)	—	13	19
Accumulated other comprehensive loss	—	(1)	—	—	(1)
Balance at December 31, 2019	$ 291	$ 163	$ 311	$ 493	$ 1,258

(1) Altus' proportionate share of the Permian Highway Pipeline (PHP) construction costs is funded with Altus' revolving credit facility. Accordingly, Altus capitalized $2 million of related interest expense, which is included in the basis of the PHP equity interest.
(2) At December 31, 2019, consolidated retained earnings, net of amortized basis differences, included $5 million related to undistributed earnings of equity method investments.

Summarized Combined Financial Information

The following presents summarized combined statement of operations information for Altus' equity method interests (on a 100 percent basis):

	For the Year Ended December 31,	
	2019(1)	2018(1)
	(In millions)	
Operating revenues	$ 302	$ 2
Operating expenses	181	8
Operating income (loss)	121	(6)
Net income (loss)	115	(6)
Other comprehensive loss	(8)	—

(1) The financial results for all equity method interests are presented for the entire twelve months for both periods for comparability.

The following presents summarized combined balance sheet information for Altus' equity method interests (on a 100 percent basis):

	December 31,	
	2019	2018
	(In millions)	
Current assets	$ 441	$ 451
Noncurrent assets	6,431	2,377
Total assets	$ 6,872	$ 2,828
Current liabilities	$ 478	$ 805
Noncurrent liabilities	958	1
Equity	5,436	2,022
Total liabilities and equity	$ 6,872	$ 2,828

As of December 31, 2018, Apache also held an investment in Marine Well Containment Company. This investment was sold in the first quarter of 2019 for $30 million, with no gain or loss recorded on the sale.

7. OTHER CURRENT LIABILITIES

The following table provides detail of the Company's other current liabilities at December 31, 2019 and 2018:

	December 31,	
	2019	2018
	(In millions)	
Accrued operating expenses	$ 143	$ 65
Accrued exploration and development	319	667
Accrued gathering, processing, and transmission - Altus	17	81
Accrued compensation and benefits	212	177
Accrued interest	135	137
Accrued income taxes	51	58
Current asset retirement obligation	47	66
Current operating lease liability	169	—
Other	56	90
Total Other current liabilities	$ 1,149	$ 1,341

8. ASSET RETIREMENT OBLIGATION

The following table describes changes to the Company's asset retirement obligation (ARO) liability for the years ended December 31, 2019 and 2018:

	2019	2018
	(In millions)	
Asset retirement obligation at beginning of year	$ 1,932	$ 1,835
Liabilities incurred	41	51
Liabilities divested	(56)	—
Liabilities settled	(56)	(52)
Accretion expense	107	108
Revisions in estimated liabilities	(110)	(10)
Asset retirement obligation at end of year	1,858	1,932
Less current portion	(47)	(66)
Asset retirement obligation, long-term	$ 1,811	$ 1,866

The ARO liability reflects the estimated present value of the amount of dismantlement, removal, site reclamation, and similar activities associated with Apache's oil and gas properties and other long-lived assets. The Company utilizes current retirement costs to estimate the expected cash outflows for retirement obligations. The Company estimates the ultimate productive life of the properties, a risk-adjusted discount rate, and an inflation factor in order to determine the current present value of this obligation. To the extent future revisions to these assumptions impact the present value of the existing ARO liability, a corresponding adjustment is made to the oil and gas property or other long-lived asset balance.

During 2019 and 2018, the Company recorded $41 million and $51 million, respectively, in abandonment liabilities resulting from Apache's exploration and development capital program. Liabilities settled primarily relate to individual properties, platforms, and facilities plugged and abandoned during the period. During 2019, approximately $110 million net abandonment costs were revised downward to reflect changes in estimates of timing and costs, primarily in the North Sea. During 2018, approximately $10 million of abandonment costs were revised downward, primarily in the U.S. and North Sea.

9. DEBT AND FINANCING COSTS

Overview

All of the Company’s debt is senior unsecured debt and has equal priority with respect to the payment of both principal and interest. All indentures for the notes and debentures described below place certain restrictions on the Company, including limits on Apache’s ability to incur debt secured by certain liens. Certain of these indentures also restrict the Company’s ability to enter into certain sale and leaseback transactions and give holders the option to require the Company to repurchase outstanding notes and debentures upon certain changes in control. None of the indentures contain prepayment obligations in the event of a decline in credit ratings.

In January 2017, the Company purchased and canceled $69 million aggregate principal amount of senior notes for $71 million in cash, including accrued interest and $1 million of premium, which completed the open market $250 million repurchase program initiated in 2016. These repurchases resulted in a $1 million net loss on extinguishment of debt, which is included in “Financing costs, net” in the Company’s consolidated statement of operations. The net loss includes an acceleration of related discount and deferred financing costs.

In August 2018, Apache closed an offering of $1.0 billion in aggregate principal amount of senior unsecured 4.375% notes due October 15, 2028. The notes are redeemable at any time, in whole or in part, at Apache’s option, subject to a make-whole premium. The net proceeds from the sale of the notes were used to purchase certain outstanding notes in cash tender offers, repay notes that matured in September 2018, and for general corporate purposes.

Also in August 2018, Apache closed cash tender offers for certain outstanding notes. Apache accepted for purchase $731 million aggregate principal amount of certain notes covered by the tender offers. Apache paid holders an aggregate of approximately $828 million reflecting principal, the discount to par, early tender premium, and accrued and unpaid interest. The Company recorded a net loss of $94 million on extinguishment of debt, including $5 million of unamortized debt issuance costs and discount, in connection with the note purchases.

On June 19, 2019, Apache closed offerings of $1.0 billion in aggregate principal amount of senior unsecured notes, comprised of $600 million in aggregate principal amount of 4.250% notes due January 15, 2030 and $400 million in aggregate principal amount of 5.350% notes due July 1, 2049. The notes are redeemable at any time, in whole or in part, at Apache’s option, subject to a make-whole premium. The net proceeds from the sale of the notes were used to purchase certain outstanding notes in cash tender offers and for general corporate purposes.

On June 21, 2019, the Company closed cash tender offers for certain outstanding notes. Apache accepted for purchase $932 million aggregate principal amount of certain notes covered by the tender offers. Apache paid holders an aggregate of approximately $1.0 billion reflecting principal, the net premium to par, early tender premium, and accrued and unpaid interest. The Company recorded a net loss of $75 million on extinguishment of debt, including $7 million of unamortized debt issuance costs and discount, in connection with the note purchases.

The following table presents the carrying value of the Company's debt at December 31, 2019 and 2018:

	December 31,	
	2019	2018
	(In millions)	
Commercial paper	$ —	$ —
7.625% notes due 2019[1]	—	150
3.625% notes due 2021[2]	293	393
3.25% notes due 2022[2]	463	687
2.625% notes due 2023[2]	181	403
7.7% notes due 2026	79	79
7.95% notes due 2026	133	133
4.375% notes due 2028[2]	1,000	1,000
7.75% notes due 2029[2][3]	247	300
4.25% notes due 2030[2]	600	—
6.0% notes due 2037[2]	467	800
5.1% notes due 2040[2]	1,499	1,499
5.25% notes due 2042[2]	500	500
4.75% notes due 2043[2]	1,413	1,413
4.25% notes due 2044[2]	753	753
7.375% debentures due 2047	150	150
5.35% notes due 2049[2]	400	—
7.625% debentures due 2096	39	39
Notes and debentures before unamortized discount and debt issuance costs[4]	8,217	8,299
Altus credit facility[5]	396	—
Finance lease obligations	48	40
Unamortized discount	(42)	(44)
Debt issuance costs	(53)	(51)
Total debt	8,566	8,244
Current maturities	(11)	(151)
Long-term debt	$ 8,555	$ 8,093

(1) On July 1, 2019, Apache's 7.625% senior notes due 2019 in original principal amount of $150 million matured and were repaid.
(2) These notes are redeemable, as a whole or in part, at Apache's option, subject to a make-whole premium, except that the 7.75% notes due 2029 are only redeemable as whole for principal and accrued interest in the event of certain Canadian tax law changes. The remaining notes and debentures are not redeemable.
(3) Assumed by Apache in August 2017 as permitted by terms of these notes originally issued by a subsidiary and guaranteed by Apache. Since these notes historically have been included in Apache's long-term debt, the assumption did not change Apache's long-term debt or total debt.
(4) The fair value of the Company's notes and debentures was $8.4 billion and $7.8 billion as of December 31, 2019 and 2018, respectively. Apache uses a market approach to determine the fair value of its notes and debentures using estimates provided by an independent investment financial data services firm (a Level 2 fair value measurement).
(5) The carrying amount of borrowings by Altus Midstream LP on its credit facility approximate fair value because the interest rates are variable and reflective of market rates.

Maturities for the Company's notes and debentures excluding discount and debt issuance costs as of December 31, 2019 are as follows:

	(In millions)
2020	$ —
2021	293
2022	463
2023	181
2024	—
Thereafter	7,280
Notes and debentures, excluding discounts and debt issuance costs	$ 8,217

Money Market and Overdraft Lines of Credit

The Company has certain uncommitted money market and overdraft lines of credit that are used from time to time for working capital purposes. As of December 31, 2019 and 2018, there were no outstanding balances on Apache's lines of credit.

Unsecured Committed Bank Credit Facilities

In March 2018, Apache entered into a revolving credit facility with commitments totaling $4.0 billion. In March 2019, the term of this facility was extended by one year to March 2024 (subject to Apache's remaining one-year extension option) pursuant to Apache's exercise of an extension option. The Company can increase commitments up to $5.0 billion by adding new lenders or obtaining the consent of any increasing existing lenders. The facility includes a letter of credit subfacility of up to $3.0 billion, of which $2.08 billion was committed as of December 31, 2019. The facility is for general corporate purposes and committed borrowing capacity fully supports Apache's commercial paper program. Letters of credit are available for security needs, including in respect of abandonment obligations assumed in various North Sea acquisitions. As of December 31, 2019, there were no borrowings or letters of credit outstanding under this facility. As of December 31, 2018, letters of credit aggregating approximately £112.5 million and no borrowings were outstanding under this facility. In February 2019, £109.4 million of these letters of credit no longer were required and were terminated. In connection with entry into this facility, Apache terminated $3.5 billion and £900 million in commitments under two former credit facilities and wrote off $4 million of associated debt issuance costs, which is included in "Financing costs, net" in the Company's consolidated statement of operations.

At Apache's option, the interest rate per annum for borrowings under the 2018 facility is either a base rate, as defined, plus a margin, or the London Inter-bank Offered Rate (LIBOR), plus a margin. Apache also pays quarterly a facility fee at a per annum rate on total commitments. The margins and the facility fee vary based upon the Company's senior long-term debt rating. At December 31, 2019, the base rate margin was 0.075 percent, the LIBOR margin was 1.075 percent, and the facility fee was 0.175 percent. A commission is payable quarterly to lenders on the face amount of each outstanding letter of credit at a per annum rate equal to the LIBOR margin then in effect. Customary letter of credit fronting fees and other charges are payable to issuing banks.

The financial covenants of the 2018 credit facility require Apache to maintain an adjusted debt-to-capital ratio of not greater than 60 percent at the end of any fiscal quarter. For purposes of this calculation, capital excludes the effects of non-cash write-downs, impairments, and related charges occurring after June 30, 2015.

The 2018 facility's negative covenants restrict the ability of Apache and its subsidiaries to create liens securing debt on its hydrocarbon-related assets, with exceptions for liens typically arising in the oil and gas industry; liens securing debt incurred to finance the acquisition, construction, improvement, or capital lease of assets, provided that such debt, when incurred, does not exceed the subject purchase price and costs, as applicable, and related expenses; liens on subsidiary assets located outside of the United States and Canada; and liens arising as a matter of law, such as tax and mechanics' liens. Apache also may incur liens on assets if debt secured thereby does not exceed 15 percent of Apache's consolidated net tangible assets, or approximately $2.4 billion as of December 31, 2019. Negative covenants also restrict Apache's ability to merge with another entity unless it is the surviving entity, dispose of substantially all of its assets, and guarantee debt of non-consolidated entities in excess of the stated threshold.

In November 2018, Altus Midstream LP entered into a revolving credit facility for general corporate purposes that matures in November 2023 (subject to Altus Midstream LP's two, one-year extension options). The agreement for this facility, as amended, provides aggregate commitments from a syndicate of banks of $800 million. All aggregate commitments include a letter of credit subfacility of up to $100 million and a swingline loan subfacility of up to $100 million. Altus Midstream LP may increase commitments up to an aggregate $1.5 billion by adding new lenders or obtaining the consent of any increasing existing lenders. As of December 31, 2019, there were $396 million of borrowings and no letters of credit outstanding under this facility. There were no outstanding borrowings or letters of credit under this facility as of December 31, 2018.

The agreement for Altus Midstream LP's credit facility, as amended, restricts distributions in respect of capital to Apache and other unit holders in certain circumstances. Unless the Leverage Ratio is less than or equal to 4.00:1.00, the agreement limits such distributions to $30 million per calendar year until either (i) the consolidated net income of Altus Midstream LP and its restricted subsidiaries, as adjusted pursuant to the agreement, for three consecutive calendar months equals or exceeds $350.0 million on an annualized basis or (ii) Altus Midstream LP has a specified senior long-term debt rating; in addition, before the occurrence of one of those two events, the Leverage Ratio must be less than or equal to 5.00:1.00. In no event can any distribution be made that would, after giving effect to it on a pro forma basis, result in a Leverage Ratio greater than (i) 5.00:1.00 or (ii) for a specified period after a qualifying acquisition, 5.50:1.00. The Leverage Ratio is the ratio of (1) the consolidated indebtedness of Altus Midstream LP and its restricted subsidiaries to (2) EBITDA (as defined in the agreement) of Altus Midstream LP and its restricted subsidiaries for the 12-month period ending immediately before the determination date. The Leverage Ratio as of December 31, 2019 was less than 4.00:1.00.

The terms of Altus Midstream LP's Series A Cumulative Redeemable Preferred Units also contain certain restrictions on distributions in respect of capital, including the common units held by Apache and any other units that rank junior to the Preferred Units with respect to distributions or distributions upon liquidation. Refer to Note 13—Redeemable Noncontrolling Interest - Altus for further information. In addition, the amount of any cash distributions to Altus Midstream LP by any entity in which it has an interest accounted for by the equity method is subject to such entity's compliance with the terms of any debt or other agreements by which it may be bound, which in turn may impact the amount of funds available for distribution by Altus Midstream LP to its partners.

The Altus Midstream LP credit facility is unsecured and is not guaranteed by Apache or any of Apache's other subsidiaries.

There are no clauses in either the agreement for Apache's 2018 credit facility or for Altus Midstream LP's 2018 credit facility that permit the lenders to accelerate payments or refuse to lend based on unspecified material adverse changes. These agreements do not have drawdown restrictions or prepayment obligations in the event of a decline in credit ratings. However, each agreement allows the lenders to accelerate payment maturity and terminate lending and issuance commitments for nonpayment and other breaches, and if a borrower or any of its subsidiaries defaults on other indebtedness in excess of the stated threshold, is insolvent, or has any unpaid, non-appealable judgment against it for payment of money in excess of the stated threshold. Lenders may also accelerate payment maturity and terminate lending and issuance commitments under the applicable agreement if Apache or Altus Midstream LP, as applicable, undergoes a specified change in control or any borrower has specified pension plan liabilities in excess of the stated threshold. Each of Apache and Altus Midstream LP was in compliance with the terms of its 2018 credit facility as of December 31, 2019.

Commercial Paper Program

As of December 31, 2019, Apache has available a $3.5 billion commercial paper program which, subject to market availability, facilitates Apache borrowing funds for up to 270 days at competitive interest rates. The commercial paper program is fully supported by available borrowing capacity under Apache's 2018 $4.0 billion committed credit facility. At December 31, 2019 and 2018, Apache had no commercial paper outstanding.

Financing Costs, Net

The following table presents the components of Apache's financing costs, net:

	For the Year Ended December 31,		
	2019	2018	2017
	(In millions)		
Interest expense	$ 430	$ 441	$ 457
Amortization of debt issuance costs	7	9	9
Capitalized interest	(37)	(44)	(51)
Loss on extinguishment of debt	75	94	1
Interest income	(13)	(22)	(19)
Financing costs, net	$ 462	$ 478	$ 397

As of December 31, 2019, the Company has $42 million of debt discounts, which will be charged to interest expense over the life of the related debt issuances. Discount amortization of $2 million was recorded as interest expense in 2019 and $3 million in each of 2018 and 2017.

10. INCOME TAXES

Income (loss) before income taxes is composed of the following:

	For the Year Ended December 31,		
	2019	2018	2017
		(In millions)	
U.S.	$ (4,397)	$ (723)	$ (3,620)
Foreign	1,389	1,681	4,538
Total	$ (3,008)	$ 958	$ 918

The total income tax provision (benefit) consists of the following:

	For the Year Ended December 31,		
	2019	2018	2017
		(In millions)	
Current income taxes:			
Federal	$ 1	$ (1)	$ (38)
State	—	—	(8)
Foreign	659	895	641
	660	894	595
Deferred income taxes:			
Federal	67	(65)	(1,010)
State	—	2	—
Foreign	(53)	(159)	(170)
	14	(222)	(1,180)
Total	$ 674	$ 672	$ (585)

The total income tax provision (benefit) differs from the amounts computed by applying the U.S. statutory income tax rate to income (loss) before income taxes. A reconciliation of the tax on the Company's income (loss) before income taxes and total tax expense is shown below:

	For the Year Ended December 31,		
	2019	2018	2017
		(In millions)	
Income tax expense (benefit) at U.S. statutory rate	$ (631)	$ 201	$ 321
State income tax, less federal effect[1]	1	2	(6)
Taxes related to foreign operations	328	436	(105)
Tax credits	(6)	(13)	(33)
Tax on deemed repatriation of foreign earnings	—	103	419
Foreign tax credits	—	(336)	(201)
Deferred tax on undistributed foreign earnings	—	—	(1,872)
Change in U.S. tax rate	—	161	516
Net change in tax contingencies	1	(2)	(1)
Sale of Canadian assets	—	—	279
Sale of North Sea assets	—	(30)	(48)
Valuation allowances[1]	972	118	161
All other, net	9	32	(15)
	$ 674	$ 672	$ (585)

(1) The change in state valuation allowance is included as a component of state income tax.

The net deferred income tax liability reflects the net tax impact of temporary differences between the asset and liability amounts carried on the balance sheet under GAAP and amounts utilized for income tax purposes. The net deferred income tax liability consists of the following:

	December 31, 2019	December 31, 2018
	(In millions)	
Deferred tax assets:		
U.S. and state net operating losses	$ 2,108	$ 1,633
Capital losses	626	636
Tax credits and other tax incentives	32	39
Foreign tax credits	2,241	2,241
Accrued expenses and liabilities	97	117
Asset retirement obligation	618	649
Equity investments	—	4
Investment in Altus Midstream LP	107	—
Net interest expense limitation	162	65
Lease liability	108	—
Other	88	97
Total deferred tax assets	6,187	5,481
Valuation allowance	(4,959)	(3,947)
Net deferred tax assets	1,228	1,534
Deferred tax liabilities:		
Deferred income	1	10
Investment in Altus Midstream LP	—	73
Property and equipment	1,432	1,747
Right-of-use asset	106	—
Other	6	4
Total deferred tax liabilities	1,545	1,834
Net deferred income tax liability	$ 317	$ 300

Net deferred tax assets and liabilities are included in the consolidated balance sheet as follows:

	December 31, 2019	December 31, 2018
	(In millions)	
Assets:		
Deferred charges and other	$ 29	$ 91
Liabilities:		
Deferred income taxes	346	391
Net deferred income tax liability	$ 317	$ 300

On December 22, 2017, the Tax Cuts and Jobs Act (the TCJA) was signed into law. In addition to reducing the corporate income tax rate from 35 percent to 21 percent effective January 1, 2018, certain provisions in the TCJA move the U.S. away from a worldwide tax system and closer to a territorial system for earnings of foreign corporations, establishing a participation exemption system for taxation of foreign income. The new law includes a transition rule to effect this participation exemption regime. As a result of the enacted legislation, taxpayers were required to include in taxable income for the tax year ending December 31, 2017, the pro rata share of deferred income of each specified foreign corporation with respect to which the taxpayer is a U.S. shareholder. In 2017, the Company recorded a $419 million provisional deferred tax expense attributable to the deemed repatriation of foreign earnings required under the TCJA.

Also on December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (SAB 118) which provides guidance for the application of ASC Topic 740, Income Taxes, for the income tax effects of the TCJA. SAB 118 provides a measurement period which should not extend beyond one year of the enactment date of the TCJA. In 2018, the Company recorded an additional $103 million deferred tax expense attributable to the deemed repatriation of foreign earnings. This deferred tax expense combined with the provisional amount recorded in 2017 were fully offset by available foreign tax credits. Additional guidance issued by the Internal Revenue Service in 2018 clarified, among other things, the ability for taxpayers generating current tax losses to utilize foreign tax credits to fully offset taxes attributable to the deemed repatriation of foreign earnings, rather than utilizing 2017 current year losses. In light of the new guidance, the Company increased its 2017 net operating losses by $1.2 billion, which resulted in incremental $161 million deferred tax expense associated with the remeasurement of the 2017 net operating loss deferred tax asset from 35 percent to 21 percent. The Company completed its analysis of the income tax effects of the TCJA in the fourth quarter of 2018.

The Company has recorded an increase in valuation allowance against certain deferred tax assets, primarily driven by asset impairments. The Company has assessed the future potential to realize these deferred tax assets and has concluded that it is more likely than not that these deferred tax assets will not be realized based on current economic conditions and expectations for the future.

In 2019, 2018, and 2017, the Company's valuation allowance increased by $1.0 billion, increased by $131 million, and decreased by $1.6 billion, respectively, as detailed in the table below:

	2019	2018	2017
		(In millions)	
Balance at beginning of year	$ 3,947	$ 3,816	$ 5,401
State[1]	41	15	139
U.S.	971	124	905
Foreign[2]	—	(8)	(2,629)
Balance at end of year	$ 4,959	$ 3,947	$ 3,816

(1) Reported as a component of state income taxes.
(2) In 2017, the Company completed the sale of its Canadian assets. As such, except for capital losses incurred on the sale, the deferred tax assets, liabilities, and valuation allowance related to these assets were removed for 2017.

On December 31, 2019, the Company had net operating losses as follows:

	Amount	Expiration
	(In millions)	
Net operating losses:		
U.S.	$ 8,052	2019 - Indefinite
State	6,090	Various

The Company has a U.S. net operating loss carryforward of $8.1 billion, which includes $196 million of net operating loss subject to annual limitation under Section 382 of the Internal Revenue Code (Code). Net operating losses generated in tax years beginning after 2017 are subject to an 80 percent taxable income limitation with indefinite carryover under the TCJA. The Company also has a net interest expense carryover of $735 million under Section 163(j) of the Code subject to indefinite carryover, a U.S. capital loss carryforward of $1.8 billion, which has a five year carryover period expiring in 2023 and a Canadian capital loss carryforward of $836 million which has an indefinite carryover. The Company has recorded a full valuation allowance against the U.S. net operating losses, the state net operating losses, the net interest expense carryover, the U.S. capital loss, and the Canadian capital loss because it is probable that these attributes will not be realized.

On December 31, 2019, the Company had foreign tax credits as follows:

	Amount	Expiration
	(In millions)	
Foreign tax credits	$ 2,241	2025-2026

The Company has a $2.2 billion U.S. foreign tax credit carryforward. The Company has recorded a full valuation allowance against the U.S. foreign tax credits listed above because it is probable that these attributes will expire unutilized.

The Company accounts for income taxes in accordance with ASC Topic 740, "Income Taxes," which prescribes a minimum recognition threshold a tax position must meet before being recognized in the financial statements. Tax positions generally refer to a position taken in a previously filed income tax return or expected to be included in a tax return to be filed in the future that is reflected in the measurement of current and deferred income tax assets and liabilities. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	2019	2018	2017
		(In millions)	
Balance at beginning of year	$ 24	$ 26	$ 15
Additions based on tax positions related to prior year	49	—	—
Additions based on tax positions related to the current year	9	—	12
Reductions for tax positions of prior years	—	(2)	(1)
Balance at end of year	$ 82	$ 24	$ 26

The Company records interest and penalties related to unrecognized tax benefits as a component of income tax expense. Each quarter the Company assesses the amounts provided for and, as a result, may increase or reduce the amount of interest and penalties. During the years ended December 31, 2019, 2018, and 2017, the Company recorded tax expense of $1 million, $1 million, and nil, respectively, for interest and penalties. At December 31, 2019, 2018, and 2017, the Company had an accrued liability for interest and penalties of $2 million, $1 million, and nil, respectively.

In 2019, 2018, and 2017, the Company recorded a $58 million net increase, $2 million net reduction, and an $11 million net increase, respectively, in its reserve for uncertain tax positions. The 2019 increase of unrecognized tax benefits is primarily related to the Company's interpretation of certain proposed regulations issued since the passage of the TCJA. The Company is currently under IRS audit for the 2014 through 2017 tax years.

Apache and its subsidiaries are subject to U.S. federal income tax as well as income tax in various states and foreign jurisdictions. The Company's uncertain tax positions are related to tax years that may be subject to examination by the relevant taxing authority. Apache's earliest open tax years in its key jurisdictions are as follows:

Jurisdiction	
U.S.	2014
Egypt	2005
U.K.	2018

11. COMMITMENTS AND CONTINGENCIES

Legal Matters

Apache is party to various legal actions arising in the ordinary course of business, including litigation and governmental and regulatory controls. As of December 31, 2019, the Company has an accrued liability of approximately $21 million for all legal contingencies that are deemed to be probable of occurring and can be reasonably estimated. Apache's estimates are based on information known about the matters and its experience in contesting, litigating, and settling similar matters. Although actual amounts could differ from management's estimate, none of the actions are believed by management to involve future amounts that would be material to Apache's financial position, results of operations, or liquidity after consideration of recorded accruals. For material matters that Apache believes an unfavorable outcome is reasonably possible, the Company has disclosed the nature of the matter and a range of potential exposure, unless an estimate cannot be made at this time. It is management's opinion that the loss for any other litigation matters and claims that are reasonably possible to occur will not have a material adverse effect on the Company's financial position, results of operations, or liquidity.

Argentine Claims

On March 12, 2014, the Company and its subsidiaries completed the sale of all of the Company's subsidiaries' operations and properties in Argentina to YPF Sociedad Anonima (YPF). As part of that sale, YPF assumed responsibility for all of the past, present, and future litigation in Argentina involving Company subsidiaries, except that Company subsidiaries have agreed to indemnify YPF for certain environmental, tax, and royalty obligations capped at an aggregate of $100 million. The indemnity is subject to specific agreed conditions precedent, thresholds, contingencies, limitations, claim deadlines, loss sharing, and other terms and conditions. On April 11, 2014, YPF provided its first notice of claims pursuant to the indemnity. Company subsidiaries have not paid any amounts under the indemnity but will continue to review and consider claims presented by YPF. Further, Company subsidiaries retain the right to enforce certain Argentina-related indemnification obligations against Pioneer Natural Resources Company (Pioneer) in an amount up to $45 million pursuant to the terms and conditions of stock purchase agreements entered in 2006 between Company subsidiaries and subsidiaries of Pioneer.

Louisiana Restoration

Louisiana surface owners often file lawsuits or assert claims against oil and gas companies, including Apache, claiming that operators and working interest owners in the chain of title are liable for environmental damages on the leased premises, including damages measured by the cost of restoration of the leased premises to its original condition, regardless of the value of the underlying property. From time to time restoration lawsuits and claims are resolved by the Company for amounts that are not material to the Company, while new lawsuits and claims are asserted against the Company. With respect to each of the pending lawsuits and claims, the amount claimed is not currently determinable or is not material. Further, the overall exposure related to these lawsuits and claims is not currently determinable. While an adverse judgment against the Company is possible, the Company intends to actively defend these lawsuits and claims.

Starting in November of 2013 and continuing into 2019, several parishes in Louisiana have pending lawsuits against many oil and gas producers, including Apache. These cases were all removed to federal courts in Louisiana. Some of the cases have been remanded to state court with the remand orders being appealed. Other of the cases have been stayed pending appeal. In these cases, the Parishes, as plaintiffs, allege that defendants' oil and gas exploration, production, and transportation operations in specified fields were conducted in violation of the State and Local Coastal Resources Management Act of 1978, as amended, and applicable regulations, rules, orders, and ordinances promulgated or adopted thereunder by the Parish or the State of Louisiana. Plaintiffs allege that defendants caused substantial damage to land and water bodies located in the coastal zone of Louisiana. Plaintiffs seek, among other things, unspecified damages for alleged violations of applicable law within the coastal zone, the payment of costs necessary to clear, re-vegetate, detoxify, and otherwise restore the subject coastal zone as near as practicable to its original condition, and actual restoration of the coastal zone to its original condition. While an adverse judgment against the Company is possible, the Company intends to vigorously oppose these claims.

Apollo Exploration Lawsuit

In a case captioned *Apollo Exploration, LLC, Cogent Exploration, Ltd. Co. & SellmoCo, LLC v. Apache Corporation*, Cause No. CV50538 in the 385th Judicial District Court, Midland County, Texas, plaintiffs alleged damages in excess of $200 million (having previously claimed in excess of $1.1 billion) relating to purchase and sale agreements, mineral leases, and areas of mutual interest agreements concerning properties located in Hartley, Moore, Potter, and Oldham Counties, Texas. The Court recently entered final judgment in favor of the Company, ruling that the plaintiffs take nothing by their claims and awarding the Company its attorneys' fees and costs incurred in defending the lawsuit. The plaintiffs have appealed.

Australian Operations Divestiture Dispute

Pursuant to a Sale and Purchase Agreement dated April 9, 2015 (Quadrant SPA), the Company and its subsidiaries divested their remaining Australian operations to Quadrant Energy Pty Ltd (Quadrant). Closing occurred on June 5, 2015. In April 2017, Apache filed suit against Quadrant for breach of the Quadrant SPA. In its suit, Apache seeks approximately AUD $80 million. In December 2017, Quadrant filed a defense of equitable set-off to Apache's claim and a counterclaim seeking approximately AUD $200 million in the aggregate. The Company believes that Quadrant's claims lack merit and will not have a material adverse effect on the Company's financial position, results of operation, or liquidity.

Canadian Operations Divestiture Dispute

Pursuant to a Sale and Purchase Agreement dated July 6, 2017 (Paramount SPA), the Company and its subsidiaries divested their remaining Canadian operations to Paramount Resources LTD (Paramount). Closing occurred on August 16, 2017. On September 11, 2019, four ex-employees of Apache Canada on behalf of themselves and individuals employed by Apache Canada LTD on July 6, 2017, filed an Amended Statement of Claim in a matter styled *Stephen Flesch et. al. v Apache Corporation et. al.*, No. 1901-09160 Court of Queen's Bench of Alberta against the Company and others seeking class certification and a finding that the Paramount SPA amounted to a Change of Control of the Company, entitling them to accelerated vesting under the Company's equity plans. In the suit, the purported class seeks approximately $60 million USD and punitive damages. The Company believes that Plaintiffs' claims lack merit and will not have a material adverse effect on the Company's financial position, results of operation, or liquidity.

California Litigation

On July 17, 2017, in three separate actions, San Mateo County, California, Marin County, California, and the City of Imperial Beach, California, all filed suit individually and on behalf of the people of the state of California against over 30 oil, gas, and coal companies alleging damages as a result of global warming. Plaintiffs seek unspecified damages and abatement under various tort theories. On December 20, 2017, in two separate actions, the City of Santa Cruz and Santa Cruz County and in a separate action on January 22, 2018, the City of Richmond, filed similar lawsuits against many of the same defendants. On November 14, 2018, the Pacific Coast Federation of Fishermen's Associations, Inc. also filed a similar lawsuit against many of the same defendants. The Company believes that the claims made against it are baseless and intends to vigorously defend these lawsuits.

Castex Lawsuit

In a case styled *Apache Corporation v. Castex Offshore, Inc, et. al.*, Cause No. 2015-48580, in the 113th Judicial District Court of Harris County, Texas, Castex filed claims for alleged damages of approximately $200 million, relating to overspend on the Belle Isle Gas Facility upgrade, and the drilling of five sidetracks on the Potomac #3 Well. After a jury trial, a verdict of approximately $60 million, plus fees, costs and interest was entered against the Company. The Company is appealing.

Oklahoma Class Actions

Apache is a party to two class actions in Oklahoma styled *Bigie Lee Rhea v. Apache Corporation*, Case No. 6:14-cv-00433-JH, and *Albert Steven Allen v. Apache Corporation*, Case No. CJ-2019-00219. The *Rhea* case has been certified, and the appeal of the certification was recently denied. The case includes a class of royalty owners seeking damages of over $100 million for alleged breach of the implied covenant to market relating to post-production deductions and NGL uplift value. The *Allen* case has not been certified and seeks to represent a group of owners who have allegedly received late payments under Oklahoma statutes. The amount of this claim is not yet reasonably determinable. While an adverse judgment against the Company is possible, the Company intends to vigorously defend these lawsuits and claims.

Environmental Matters

The Company, as an owner or lessee and operator of oil and gas properties, is subject to various federal, state, local, and foreign country laws and regulations relating to discharge of materials into, and protection of, the environment. These laws and regulations may, among other things, impose liability on the lessee under an oil and gas lease for the cost of pollution clean-up resulting from operations and subject the lessee to liability for pollution damages. In some instances, the Company may be directed to suspend or cease operations in the affected area. The Company maintains insurance coverage, which it believes is customary in the industry, although the Company is not fully insured against all environmental risks.

Apache manages its exposure to environmental liabilities on properties to be acquired by identifying existing problems and assessing the potential liability. The Company also conducts periodic reviews, on a Company-wide basis, to identify changes in its environmental risk profile. These reviews evaluate whether there is a probable liability, the amount, and the likelihood that the liability will be incurred. The amount of any potential liability is determined by considering, among other matters, incremental direct costs of any likely remediation and the proportionate cost of employees who are expected to devote a significant amount of time directly to any possible remediation effort. As it relates to evaluations of purchased properties, depending on the extent of an identified environmental problem, the Company may exclude a property from the acquisition, require the seller to remediate the property to Apache's satisfaction, or agree to assume liability for the remediation of the property. The Company's general policy is to limit any reserve additions to any incidents or sites that are considered probable to result in an expected remediation cost exceeding $300,000. Any environmental costs and liabilities that are not reserved for are treated as an expense when actually incurred. In Apache's estimation, neither these expenses nor expenses related to training and compliance programs are likely to have a material impact on its financial condition.

As of December 31, 2019, the Company had an undiscounted reserve for environmental remediation of approximately $2 million. The Company is not aware of any environmental claims existing as of December 31, 2019 that have not been provided for or would otherwise have a material impact on its financial position, results of operations, or liquidity. There can be no assurance, however, that current regulatory requirements will not change or past non-compliance with environmental laws will not be discovered on the Company's properties.

Leases and Contractual Obligations

On January 1, 2019, Apache adopted ASU 2016-02, "Leases (Topic 842)," which requires lessees to recognize separate right-of-use (ROU) assets and lease liabilities for most leases classified as operating leases under previous GAAP. Prior to adoption, the FASB issued transition guidance permitting an entity the option to not evaluate under ASU 2016-02 those existing or expired land easements that were not previously accounted for as leases, as well as an option to apply the provisions of the new standard at its adoption date instead of the earliest comparative period presented in the financial statements. Apache elected both transitional practical expedients. Under these transition options, comparative reporting was not required, and the provisions of the standard were applied prospectively to leases in effect at the date of adoption.

As allowed under the standard, the Company also applied practical expedients to carry forward its historical assessments of whether existing agreements contain a lease, classification of existing lease agreements, and treatment of initial direct lease costs. Apache also elected to exclude short-term leases (those with terms of 12 months or less) from the balance sheet presentation and accounts for non-lease and lease components as a single lease component for all asset classes. Short-term lease expense in 2019 was $18 million, primarily related to drilling activities in Block 58 offshore Suriname.

The Company determines if an arrangement is an operating or finance lease at the inception of each contract. If the contract is classified as an operating lease, Apache records an ROU asset and corresponding liability reflecting the total remaining present value of fixed lease payments over the expected term of the lease agreement. The expected term of the lease may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. If the Company's lease does not provide an implicit rate in the contract, the Company uses its incremental borrowing rate when calculating the present value. In the normal course of business, Apache enters into various lease agreements for real estate, drilling rigs, vessels, aircraft, and equipment related to its exploration and development activities, which are typically classified as operating leases under the provisions of the standard. ROU assets are reflected within "Deferred charges and other" within "Other" assets on the Company's consolidated balance sheet, and the associated operating lease liabilities are reflected within "Other current liabilities" and "Other" within "Deferred Credits and Other Noncurrent Liabilities," as applicable.

Operating lease expense associated with ROU assets is recognized on a straight-line basis over the lease term. Lease expense is reflected on the statement of consolidated operations commensurate with the leased activities and nature of the services performed. Gross fixed operating lease expense, inclusive of amounts billable to partners and other working interest owners, was $222 million in 2019.

In addition, the Company periodically enters into finance leases that are similar to those leases classified as capital leases under previous GAAP. Finance lease assets are included in "Other" within "Property and Equipment" on the consolidated balance sheet, and the associated finance lease liabilities are reflected within "Current debt" and "Long-term debt," as applicable. Prior periods include the reclassification of $39 million finance lease obligations from "Other" within "Deferred Credits and Other Noncurrent Liabilities" to "Long-term debt" on the Company's consolidated balance sheet to conform with this presentation. There was no material impact to the Company's statement of consolidated operations and statement of consolidated cash flows for its treatment of finance leases. Depreciation on the Company's finance lease assets was $7 million in 2019. Interest on the Company's finance lease assets was $3 million in 2019.

The following table represents the Company's weighted average lease term and discount rate as of December 31, 2019:

	Operating Leases	Finance Leases
Weighted average remaining lease term	3.8 years	10.9 years
Weighted average discount rate	4.4%	4.3%

At December 31, 2019, contractual obligations for long-term operating leases, finance leases, and purchase obligations are as follows:

Net Minimum Commitments(1)	Operating Leases(2)	Finance Leases(3)	Purchase Obligations(4)(5)
		(In millions)	
2020	$ 165	$ 13	$ 152
2021	82	3	191
2022	50	3	181
2023	33	3	213
2024	27	3	195
Thereafter	32	37	910
Total future minimum payments	389	62	$ 1,842
Less: imputed interest	(23)	(14)	N/A
Total lease liabilities	366	48	N/A
Current portion	169	11	N/A
Non-current portion	$ 197	$ 37	N/A

(1) Excludes commitments for jointly owned fields and facilities for which the Company is not the operator.
(2) Amounts represent future payments associated with oil and gas operations inclusive of amounts billable to partners and other working interest owners. Such payments may be capitalized as a component of oil and gas properties and subsequently depreciated, impaired, or written off as exploration expense.
(3) Amounts represent the Company's finance lease obligation related to physical power generators being leased on a one-year term with the right to purchase and a separate lease for the Company's Midland, Texas regional office building.
(4) Amounts represent any agreements to purchase goods or services that are enforceable and legally binding and that specify all significant terms. These include minimum commitments associated with take-or-pay contracts, NGL processing agreements, drilling work program commitments, and agreements to secure capacity rights on third-party pipelines. Amounts exclude certain product purchase obligations related to marketing and trading activities for which there are no minimum purchase requirements or the amounts are not fixed or determinable. Total costs incurred under take-or-pay and throughput obligations were $111 million, $132 million, and $134 million for 2019, 2018, and 2017, respectively.
(5) Subsequent to December 31, 2019, Apache entered into an agreement to assign approximately $171 million of its firm transportation obligations beginning in March 2020.

The lease liability reflected in the table above represents the Company's fixed minimum payments that are settled in accordance with the lease terms. Actual lease payments during the period may also include variable lease components such as common area maintenance, usage-based sales taxes and rate differentials, or other similar costs that are not determinable at the inception of the lease. Gross variable lease payments, inclusive of amounts billable to partners and other working interest owners in 2019 was $78 million.

As a result of electing the transitional practical expedient to apply the provisions of the standard at its adoption date instead of the earliest comparative period presented, below are the required ASU Leases (Topic 840) disclosures for prior periods:

	Operating Leases(1)	Finance Leases(2)
	(In millions)	
Year ended December 31, 2018		
2019	$ 61	$ 1
2020-2021	64	3
2022-2023	53	4
2024 & Beyond	42	32
Total	$ 220	$ 40
Year ended December 31, 2017		
2018	$ 54	$ 1
2019-2020	81	3
2021-2022	57	3
2023 & Beyond	41	34
Total	$ 233	$ 41

(1) Includes leases for buildings, facilities, and related equipment with varying expiration dates through 2042. Amounts represent future payments associated with oil and gas operations inclusive of amounts billable to partners and other working interest owners. Such payments may be capitalized as a component of oil and gas properties and subsequently depreciated, impaired, or written off as exploration expense. Total rent expense, net of amounts capitalized and sublease income was $76 million and $82 million for 2018, and 2017, respectively.
(2) This represents the Company’s capital lease obligation related to its Midland, Texas office building. The imputed interest rate necessary to reduce the net minimum lease payments to present value of the lease term is 4.4 percent, or $16 million and $18 million as of December 31, 2018 and December 31, 2017, respectively.

12. RETIREMENT AND DEFERRED COMPENSATION PLANS

Apache Corporation provides retirement benefits to its U.S. employees through the use of multiple plans: a 401(k) savings plan, a money purchase retirement plan, a non-qualified retirement/savings plan, and a non-qualified restorative retirement savings plan. The 401(k) savings plan provides participating employees the ability to elect to contribute up to 50 percent of eligible compensation, as defined, to the plan with the Company making matching contributions up to a maximum of 8 percent of each employee’s annual eligible compensation. In addition, the Company annually contributes 6 percent of each participating employee’s annual eligible compensation to a money purchase retirement plan. The 401(k) savings plan and the money purchase retirement plan are subject to certain annually-adjusted, government-mandated restrictions that limit the amount of employee and Company contributions. For certain eligible employees, the Company also provides a non-qualified retirement/savings plan or a non-qualified restorative retirement savings plan. These plans allow the deferral of up to 50 percent of each employee’s base salary, up to 75 percent of each employee’s annual bonus (that accepts employee contributions) and the Company’s matching contributions in excess of the government mandated limitations imposed in the 401(k) savings plan and money purchase retirement plan.

Vesting in the Company’s contributions in the 401(k) savings plan, the money purchase retirement plan, the non-qualified retirement savings plan and the non-qualified restorative retirement savings plan occurs at the rate of 20 percent for every completed year of employment. Upon a change in control of ownership of Apache Corporation, immediate and full vesting occurs.

Additionally, Apache North Sea Limited maintains a separate retirement plan, as required under the laws of the U.K.

The aggregate annual cost to Apache of all U.S. and international savings plans, the money purchase retirement plan, non-qualified retirement/savings plan, and non-qualified restorative retirement savings plan was $52 million, $52 million, and $55 million for 2019, 2018, and 2017, respectively.

Apache also provides a funded noncontributory defined benefit pension plan (U.K. Pension Plan) covering certain employees of the Company’s North Sea operations in the U.K. The plan provides defined pension benefits based on years of service and final salary. The plan applies only to employees who were part of BP North Sea’s pension plan as of April 2, 2003, prior to the acquisition of BP North Sea by the Company effective July 1, 2003.

Additionally, the Company offers postretirement medical benefits to U.S. employees who meet certain eligibility requirements. Eligible participants receive medical benefits up until the age of 65 or at the date they become eligible for Medicare, provided the participant remits the required portion of the cost of coverage. The plan is contributory with participants’ contributions adjusted annually. The postretirement benefit plan does not cover benefit expenses once a covered participant becomes eligible for Medicare.

The following tables set forth the benefit obligation, fair value of plan assets and funded status as of December 31, 2019, 2018, and 2017, and the underlying weighted average actuarial assumptions used for the U.K. Pension Plan and U.S. postretirement benefit plan. Apache uses a measurement date of December 31 for its pension and postretirement benefit plans.

	2019		2018		2017	
	Pension Benefits	Postretirement Benefits	Pension Benefits	Postretirement Benefits	Pension Benefits	Postretirement Benefits
	(In millions)					
Change in Projected Benefit Obligation						
Projected benefit obligation at beginning of year	$ 187	$ 27	$ 216	$ 27	$ 202	$ 26
Service cost	3	2	4	2	4	2
Interest cost	5	1	5	1	6	1
Foreign currency exchange rates	7	—	(11)	—	20	—
Actuarial losses (gains)	15	(9)	(11)	(2)	(4)	1
Plan settlements	(14)	—	(11)	—	—	—
Benefits paid	(4)	(2)	(5)	(3)	(12)	(4)
Retiree contributions	—	1	—	2	—	1
Projected benefit obligation at end of year	199	20	187	27	216	27
Change in Plan Assets						
Fair value of plan assets at beginning of year	208	—	238	—	206	—
Actual return on plan assets	25	—	(6)	—	17	—
Foreign currency exchange rates	8	—	(13)	—	22	—
Employer contributions	5	1	5	2	5	3
Plan settlements	(14)	—	(11)	—	—	—
Benefits paid	(4)	(2)	(5)	(4)	(12)	(4)
Retiree contributions	—	1	—	2	—	1
Fair value of plan assets at end of year	228	—	208	—	238	—
Funded status at end of year	$ 29	$ (20)	$ 21	$ (27)	$ 22	$ (27)
Amounts recognized in Consolidated Balance Sheet						
Current liability	$ —	$ (2)	$ —	$ (2)	$ —	$ (2)
Non-current asset (liability)	29	(18)	21	(25)	22	(25)
	$ 29	$ (20)	$ 21	$ (27)	$ 22	$ (27)
Pre-tax Amounts Recognized in Accumulated Other Comprehensive Income (Loss)						
Accumulated gain (loss)	$ (7)	$ 19	$ (13)	$ 10	$ (11)	$ 8
Weighted Average Assumptions used as of December 31						
Discount rate	2.10%	3.00%	2.90%	4.13%	2.60%	3.44%
Salary increases	4.30%	N/A	4.70%	N/A	4.70%	N/A
Expected return on assets	2.80%	N/A	2.80%	N/A	2.90%	N/A
Healthcare cost trend						
Initial	N/A	6.25%	N/A	6.50%	N/A	6.75%
Ultimate in 2025	N/A	5.00%	N/A	5.00%	N/A	5.00%

As of December 31, 2019, 2018, and 2017, the accumulated benefit obligation for the U.K. Pension Plan was $181 million, $167 million, and $193 million, respectively.

Apache's defined benefit pension plan assets are held by a non-related trustee who has been instructed to invest the assets in a blend of equity securities and low-risk debt securities. The Company intends that this blend of investments will provide a reasonable rate of return such that the benefits promised to members are provided. The U.K. Pension Plan policy is to target an ongoing funding level of 100 percent through prudent investments and includes policies and strategies such as investment goals, risk management practices, and permitted and prohibited investments. A breakout of previous allocations for plan asset holdings and the target allocation for the Company's plan assets are summarized below:

	Target Allocation	Percentage of Plan Assets at Year-End	
	2019	2019	2018
Asset Category			
Equity securities:			
Overseas quoted equities	22%	23%	22%
Total equity securities	22%	23%	22%
Debt securities:			
U.K. Government bonds	62%	62%	62%
U.K. corporate bonds	16%	15%	15%
Total debt securities	78%	77%	77%
Cash	—	—	1%
Total	100%	100%	100%

The plan's assets do not include any direct ownership of equity or debt securities of Apache. The fair value of plan assets at December 31, 2019 and 2018 are based upon unadjusted quoted prices for identical instruments in active markets, which is a Level 1 fair value measurement. The following tables present the fair values of plan assets for each major asset category based on the nature and significant concentration of risks in plan assets at December 31, 2019 and December 31, 2018:

	December 31, 2019	December 31, 2018
	(In millions)	
Equity securities:		
Overseas quoted equities(1)	$ 52	$ 46
Total equity securities	52	46
Debt securities:		
U.K. Government bonds(2)	140	129
U.K. corporate bonds(3)	35	32
Total debt securities	175	161
Cash	1	1
Fair value of plan assets	$ 228	$ 208

(1) This category includes overseas equities, which comprises 20 percent passive global equities benchmarked against the MSCI World (NDR) Index, 25 percent passive global equities (hedged) benchmarked against the MSCI World (NDR) Hedged Index, 20 percent fundamental indexation global equities benchmarked against the FTSE RAFI Developed 1000 index, 25 percent fundamental indexation global equities (hedged) benchmarked against the FTSE RAFI Developed 1000 Hedge Index, and 10 percent emerging markets benchmarked against the MSCI Emerging Markets (NDR) Index, which has a performance target of 2 percent per annum over the benchmark over a rolling three-year period.
(2) This category includes U.K. Government bonds, which comprises 61 percent index-linked gilts benchmarked against the FTSE Actuaries Government Securities Index-Linked Over 5 Years Index, 8 percent sterling nominal LDI bonds, and 31 percent sterling inflation linked LDI bonds, both benchmarked against ILIM Custom Benchmark index.
(3) This category comprises U.K. corporate bonds benchmarked against the BofAML Sterling Corporate & Collaterlised (excluding Subordinated) Index.

The expected long-term rate of return on assets assumptions are derived relative to the yield on long-dated fixed-interest bonds issued by the U.K. government (gilts). For equities, outperformance relative to gilts is assumed to be 3.5 percent per year.

The following tables set forth the components of the net periodic cost and the underlying weighted average actuarial assumptions used for the pension and postretirement benefit plans as of December 31, 2019, 2018, and 2017:

	2019		2018		2017	
	Pension Benefits	Postretirement Benefits	Pension Benefits	Postretirement Benefits	Pension Benefits	Postretirement Benefits
	(In millions)					
Components of Net Periodic Benefit Cost						
Service cost	$ 3	$ 2	$ 4	$ 2	$ 4	$ 2
Interest cost	5	1	5	1	6	1
Expected return on assets	(5)	—	(7)	—	(8)	—
Amortization of actuarial (gain) loss	—	(1)	—	—	—	(1)
Settlement loss	—	—	1	—	—	—
Net periodic benefit cost	$ 3	$ 2	$ 3	$ 3	$ 2	$ 2
Weighted Average Assumptions Used to Determine Net Periodic Benefit Cost for the Years Ended December 31						
Discount rate	2.90%	4.13%	2.60%	3.44%	2.70%	3.76%
Salary increases	4.70%	N/A	4.70%	N/A	4.80%	N/A
Expected return on assets	2.80%	N/A	2.90%	N/A	3.40%	N/A
Healthcare cost trend						
Initial	N/A	6.50%	N/A	6.75%	N/A	7.00%
Ultimate in 2025	N/A	5.00%	N/A	5.00%	N/A	5.00%

Assumed health care cost trend rates affect amounts reported for postretirement benefits. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	Postretirement Benefits	
	1% Increase	1% Decrease
	(In millions)	
Effect on service and interest cost components	$ 1	$ (1)
Effect on postretirement benefit obligation	2	(1)

Apache expects to contribute approximately $6 million to its pension plan and $2 million to its postretirement benefit plan in 2020. The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

	Pension Benefits	Postretirement Benefits
	(In millions)	
2020	$ 5	$ 2
2021	4	2
2022	5	2
2023	6	2
2024	6	2
Years 2025-2029	32	8

13. REDEEMABLE NONCONTROLLING INTEREST - ALTUS

Preferred Units Issuance

On June 12, 2019, Altus Midstream LP issued and sold Series A Cumulative Redeemable Preferred Units (the Preferred Units) for an aggregate issue price of $625 million in a private offering exempt from the registration requirements of the Securities Act of 1933 (the Closing). Altus Midstream LP received approximately $611 million in cash proceeds from the sale after deducting transaction costs and discounts to certain purchasers. Pursuant to the partnership agreement of Altus Midstream LP:

- The Preferred Units bear quarterly distributions at a rate of 7 percent per annum, increasing after the fifth anniversary of Closing and upon the occurrence of specified events. Altus Midstream LP may pay distributions in-kind for the first six quarters after the Preferred Units are issued.
- The Preferred Units are redeemable at Altus Midstream LP’s option at any time in cash at a redemption price (the Redemption Price) equal to the greater of an 11.5 percent internal rate of return (increasing after the fifth anniversary of Closing to 13.75 percent) and a 1.3x multiple of invested capital. The Preferred Units will be redeemable at the holder’s option upon a change of control or liquidation of Altus Midstream LP and certain other events, including certain asset dispositions.
- The Preferred Units will be exchangeable for shares of ALTM’s Class A common stock at the holder’s election after the seventh anniversary of Closing or upon the occurrence of specified events. Each Preferred Unit will be exchangeable for a number of shares of ALTM’s Class A common stock equal to the Redemption Price divided by the volume-weighted average trading price of ALTM’s Class A common stock on the Nasdaq Capital Market for the 20 trading days immediately preceding the second trading day prior to the applicable exchange date, less a 6 percent discount.
- Each outstanding Preferred Unit has a liquidation preference equal to the Redemption Price payable before any amounts are paid in respect of Altus Midstream LP’s common units and any other units that rank junior to the Preferred Units with respect to distributions or distributions upon liquidation.
- Preferred Units holders have rights to approve certain partnership business, financial, and governance-related matters.
- Altus Midstream LP is restricted from declaring or making cash distributions on its common units until all required distributions on the Preferred Units have been paid. In addition, before the fifth anniversary of Closing, aggregate cash distributions on, and redemptions of, Altus Midstream LP’s common units are limited to $650 million of cash from ordinary course operations if permitted under its credit facility. Cash distributions on, and redemptions of, Altus Midstream LP’s common units also are subject to satisfaction of leverage ratio requirements specified in its partnership agreement.

Classification

The Preferred Units are accounted for on the Company’s consolidated balance sheets as a redeemable noncontrolling interest classified as temporary equity based on the terms of the Preferred Units, including the redemption rights with respect thereto.

Initial Measurement

Altus recorded the net transaction price of $611 million, calculated as the negotiated transaction price of $625 million, less issue discounts of $4 million and transaction costs totaling $10 million.

Certain redemption features embedded within the terms of the Preferred Units require bifurcation and measurement at fair value. Altus bifurcated and recognized at fair value an embedded derivative related to the Preferred Units at inception of $94 million for a redemption option of the Preferred Unit holders. The derivative is reflected in “Other” within “Deferred Credits and Other Noncurrent Liabilities” on the Company’s consolidated balance sheet at its current fair value of $103 million. The fair value of the embedded derivative, a Level 3 fair value measurement, was based on numerous factors including expected future interest rates using the Black-Karasinski model, imputed interest rate of Altus, the timing of periodic cash distributions, and dividend yields of the Preferred Units. See Note 4—Derivative Instruments and Hedging Activities for more detail.

The net transaction price was allocated to the preferred redeemable noncontrolling interest and the embedded features according to the associated initial fair value measurements as follows:

	June 12, 2019
	(In millions)
Redeemable noncontrolling interest - Altus Preferred Unit Limited Partners	$ 517
Preferred Units embedded derivative	94
	$ 611

Subsequent Measurement

Altus applies a two-step approach to subsequent measurement of the redeemable noncontrolling interest related to the Preferred Units by first allocating a portion of the net income of Altus Midstream LP in accordance with the terms of the partnership agreement. An additional adjustment to the carrying value of the Preferred Unit redeemable noncontrolling interest at each period end may be recorded, if applicable. The amount of such adjustment is determined based upon the accreted value method to reflect the passage of time until the Preferred Units are exchangeable at the option of the holder. Pursuant to this method, the net transaction price is accreted using the effective interest method to the Redemption Price calculated at the seventh anniversary of Closing. The total adjustment is limited to an amount such that the carrying amount of the Preferred Unit redeemable noncontrolling interest at each period end is equal to the greater of (a)(i) the carrying amount of the Preferred Units, plus (ii) the fair value of the embedded derivative liability or (b) the accreted value of the net transaction price.

Activity related to the Preferred Units for the year ended December 31, 2019 is as follows:

	Units Outstanding	Financial Position[2]
	(In millions, except unit data)	
Redeemable noncontrolling interest - Altus Preferred Unit Limited Partners: beginning of period	—	$ —
Issuance of Preferred Units, net	625,000	517
Distribution of in-kind additional Preferred Units[1]	13,163	—
Allocation of Altus Midstream LP net income	N/A	38
Redeemable noncontrolling interest - Altus Preferred Unit Limited Partners: end of period	638,163	555
Preferred Units embedded derivative		103
		$ 658

(1) Subsequent to the balance sheet date, Altus Midstream LP provided notice to the Preferred Unit holders of record at December 31, 2019 of the amount of the distribution on the Preferred Units for the quarter ended December 31, 2019. The holders also were notified that Altus Midstream LP elected to pay the entire amount of the approximate $11 million distribution in-kind in additional Preferred Units (PIK Units) on February 14, 2020. In total, 11,168 PIK Units were issued in satisfaction of the required distribution.

(2) As at December 31, 2019, the aggregate Redemption Price was $664 million, based on an internal rate of return of 11.5 percent.

N/A - not applicable.

14. CAPITAL STOCK

Common Stock Outstanding

A summary of the shares issued and outstanding for the years ended December 31, 2019, 2018, and 2017 is presented in the table below.

	2019	2018	2017
Balance, beginning of year	374,696,222	380,954,864	379,439,676
Shares issued for stock-based compensation plans:			
Treasury shares issued	31,701	2,454	1,411
Common shares issued	1,334,747	1,566,237	1,513,777
Treasury shares acquired	—	(7,827,333)	—
Balance, end of year	376,062,670	374,696,222	380,954,864

Net Income (Loss) per Common Share

A reconciliation of the components of basic and diluted net income (loss) per common share for the years ended December 31, 2019, 2018, and 2017 is presented in the table below.

	2019			2018			2017		
	Loss	Shares	Per Share	Income	Shares	Per Share	Income	Shares	Per Share
	(In millions, except per share amounts)								
Basic:									
Income (loss) attributable to common stock	$ (3,553)	377	$ (9.43)	$ 40	382	$ 0.11	$ 1,304	381	$ 3.42
Effect of Dilutive Securities:									
Stock options and other	$ —	—	$ —	$ —	2	$ —	$ —	2	$ (0.01)
Diluted:									
Income (loss) attributable to common stock	$ (3,553)	377	$ (9.43)	$ 40	384	$ 0.11	$ 1,304	383	$ 3.41

The diluted EPS calculation excludes options and restricted shares that were anti-dilutive totaling 5.0 million, 5.6 million, and 7.3 million for the years ended December 31, 2019, 2018, and 2017, respectively. The impact to net income (loss) attributable to common stock on an assumed conversion of the redeemable noncontrolling Preferred Units interest in Altus Midstream LP were anti-dilutive for the year ended December 31, 2019.

Stock Repurchase Program

In 2013 and 2014, Apache's Board of Directors authorized the purchase of up to 40 million shares of the Company's common stock. Shares may be purchased either in the open market or through privately held negotiated transactions. The Company initiated the buyback program on June 10, 2013, and through December 31, 2019, had repurchased a total of 40 million shares at an average price of $79.18 per share. During the fourth quarter of 2018, the Company's Board of Directors authorized the purchase of up to 40 million additional shares of the Company's common stock. The Company is not obligated to acquire any specific number of shares and did not purchase any shares during 2019.

Common Stock Dividend

For each of the years ended December 31, 2019, 2018, and 2017, the Company paid common stock dividends of $1.00 per share.

Stock Compensation Plans

The Company has several stock-based compensation plans, which include stock options, restricted stock, and conditional restricted stock unit plans. On May 12, 2016, the Company's shareholders approved the 2016 Omnibus Compensation Plan (the 2016 Plan), which is intended to provide eligible employees with equity-based incentives. The 2016 Plan provides for the granting of Incentive Stock Options, Non-Qualified Stock Options, Performance Awards, Restricted Stock Awards, Restricted Stock Units, Stock Appreciation Rights, Cash Awards, or any combination of the foregoing. A total of 14.4 million shares were authorized and available for grant under the 2016 Plan as of December 31, 2019. Previously approved plans remain in effect solely for the purpose of governing grants still outstanding that were issued prior to approval of the 2016 Plan. All new grants are issued from the 2016 Plan. In 2018, the Company began issuing cash-settled awards (phantom units) under the restricted stock and conditional restricted stock unit plans. The phantom units represent a hypothetical interest in the Company's stock and, once vested, are settled in cash.

Costs related to the plans are capitalized or expensed to "Lease operating expenses," "Exploration," or "General and administrative" in the Company's statement of consolidated operations based on the nature of each employee's activities. A description of the Company's stock-settled and cash-settled units compensation plans and related costs follows:

	For the Year Ended December 31,		
	2019	2018	2017
		(In millions)	
Stock-settled and cash-settled compensation expensed	$ 110	$ 157	$ 142
Stock-settled and cash-settled compensation capitalized	28	37	41
Total stock-settled and cash-settled compensation costs	$ 138	$ 194	$ 183

Stock Options

As of December 31, 2019, the Company had issued options to purchase shares of the Company's common stock under the 2007 Omnibus Equity Compensation Plan, the 2011 Omnibus Equity Compensation Plan (2011 Plan), and the 2016 Plan (together, the Omnibus Plans). New shares of Company stock will be issued for employee stock option exercises. Under the Omnibus Plans, the exercise price of each option equals the closing price of Apache's common stock on the date of grant. Options issued prior to 2016 generally become exercisable ratably over a four-year period and expire 10 years after granted. Options granted in or after 2016 become exercisable ratably over a three-year period and expire 10 years after granted. The Omnibus Plans were submitted to and approved by the Company's shareholders.

A summary of stock options issued and outstanding under the Omnibus Plans is presented in the table below for the years ended December 31, 2019, 2018, and 2017 (shares in thousands):

	2019		2018		2017	
	Shares Under Option	Weighted Average Exercise Price	Shares Under Option	Weighted Average Exercise Price	Shares Under Option	Weighted Average Exercise Price
Outstanding, beginning of year	4,872	$ 75.95	4,593	$ 83.36	5,113	$ 84.89
Granted	—	—	812	45.93	490	63.25
Exercised	—	—	(29)	41.79	(15)	41.24
Forfeited	(80)	34.58	(121)	74.58	(691)	84.65
Expired	(494)	88.82	(383)	104.21	(304)	76.09
Outstanding, end of year(1)	4,298	75.24	4,872	75.95	4,593	83.36
Expected to vest(2)	495	49.11	1,274	48.74	947	51.83
Exercisable, end of year(3)	3,803	78.64	3,598	85.59	3,646	91.56

(1) As of December 31, 2019, options outstanding had a weighted average remaining contractual life of 4.1 years and no intrinsic value.
(2) As of December 31, 2019, options expected to vest had a weighted average remaining contractual life of 7.8 years and no intrinsic value.
(3) As of December 31, 2019, options exercisable had a weighted average remaining contractual life of 3.6 years and no intrinsic value.

The fair value of each stock option award is estimated on the date of grant using the Black-Scholes option pricing model, a Level 2 fair value measurement. Assumptions used in the valuation are disclosed in the following table. Expected volatilities are based on historical volatility of the Company's common stock and other factors. The expected dividend yield is based on historical yields on the date of grant. The expected term of stock options granted represents the period of time that the stock options are expected to be outstanding and is derived from historical exercise behavior, current trends, and values derived from lattice-based models. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of grant.

	2019	2018	2017
Expected volatility	N/A	33.47%	34.58%
Expected dividend yields	N/A	2.16%	1.58%
Expected term (in years)	N/A	6	6
Risk-free rate	N/A	2.42%	2.02%
Weighted-average grant-date fair value	N/A	$ 13.15	$ 19.38

N/A - not applicable.

There were no options issued and no options exercised during 2019. The intrinsic values of options exercised during 2018 and 2017 were approximately $0.1 million and $0.2 million, respectively. As of December 31, 2019, the total compensation cost related to non-vested options not yet recognized was $2 million, which will be recognized over the remaining vesting period of the options.

Restricted Stock Units and Restricted Stock Phantom Units

The Company has restricted stock unit and restricted stock phantom unit (cash-settled) plans for eligible employees including officers. The programs created under the Omnibus Plans have been approved by Apache's Board of Directors. The value of the stock-settled awards issued is established by the market price on the date of grant and is being recorded as compensation expense ratably over the vesting terms. The cash-settled awards compensation expense is recorded as a liability and remeasured at the end of each reporting period over the vesting terms. The restricted stock phantom units represent a hypothetical interest in either the Company's stock or in ALTM's common stock, as applicable, and, once vested, are settled in cash. The cash-settled awards compensation expense is recorded as a liability and remeasured at the end of each reporting period over the vesting terms. During 2019, 2018, and 2017, compensation-expense related to restricted stock units and cash-based units was $104 million, $101 million, and $108 million, respectively. In 2019, 2018, and 2017, $24 million, $29 million, and $35 million were capitalized, respectively.

The following table is a summary of stock-settled restricted stock unit activity for the years ended December 31, 2019, 2018, and 2017 (shares in thousands):

	2019		2018		2017	
Stock-settled Restricted Stocks Units	**Shares**	**Weighted-Average Grant-Date Fair Value**	**Shares**	**Weighted-Average Grant-Date Fair Value**	**Shares**	**Weighted-Average Grant-Date Fair Value**
Non-vested, beginning of year	3,153	$ 55.54	4,920	$ 56.67	6,062	$ 55.11
Granted	1,479	36.81	608	45.59	1,948	62.74
Vested[3]	(1,899)	53.99	(2,023)	55.10	(2,288)	58.77
Forfeited	(285)	45.06	(352)	56.69	(802)	55.54
Non-vested, end of year[1][2]	2,448	46.65	3,153	55.54	4,920	56.67

(1) As of December 31, 2019, there was $18 million of total unrecognized compensation cost related to 2,447,910 unvested stock-settled restricted stock units.
(2) As of December 31, 2019, the weighted-average remaining life of unvested stock-settled restricted stock units is approximately 0.7 years.
(3) The grant date fair values of the stock-settled awards vested during 2019, 2018, and 2017 were approximately $103 million, $111 million, and $135 million, respectively.

The following table is a summary of cash-settled restricted stock phantom unit activity for the years ended December 31, 2019 and 2018 (in thousands):

Cash-settled Restricted Stock Phantom Units[1]	**2019**	**2018**
Non-vested, beginning of year	1,818	59
Granted[2]	4,831	1,973
Vested	(616)	(38)
Forfeited	(649)	(176)
Non-vested, end of year[3]	5,384	1,818

(1) The Company issued no cash-settled restricted stock phantom units in 2017.

(2) The 2019 restricted stock phantom units included 3,401,477 awards based on the per-share market price of Apache's common stock and 1,429,135 awards based on the per-share market price of ALTM's common stock.
(3) The outstanding liability for the unvested cash-settled restricted stock phantom units that has not been recognized as of December 31, 2019 was approximately $52 million.

In January 2020, the Company awarded 961,368 restricted stock units and 3,340,495 restricted stock phantom units based on Apache's weighted-average per-share market price of $25.69 under the 2016 Plan to eligible employees. Total compensation cost for restricted stock units and restricted stock phantom units absent any forfeitures, is estimated to be $25 million and $86 million, respectively, and was calculated based on the fair market value of a share of the Company's common stock as of the grant date. Compensation cost will be recognized over a three-year vesting period for both plans. The phantom units will be classified as a liability and remeasured at the end of each reporting period based on the change in fair value of one share of the Company's common stock.

Also during January 2020, the Company awarded 1,425,513 restricted stock phantom units based on ALTM's weighted-average per-share market price of $2.70. The restricted stock phantom units represent a hypothetical interest in ALTM's common stock and, once vested, are settled in cash. Total compensation cost for these restricted stock phantom units, absent any forfeitures, is estimated to be $4 million and was calculated based on the fair market value of ALTM's common stock as of the grant date. The restricted stock phantom units will be classified as a liability and remeasured at the end of each reporting period based on the change in fair value of one share of ALTM's common stock.

Performance Program

To provide long-term incentives for Apache employees to deliver competitive returns to the Company's stockholders, the Company has granted conditional restricted stock units to eligible employees. Apache has a performance program for certain eligible employees with payout for 50 percent of the shares based upon measurement of total shareholder return (TSR) of Apache common stock as compared to a designated peer group during a three-year performance period. Payout for the remaining 50 percent of the shares is based on performance and financial objectives as defined in the plan. The overall results of the objectives are calculated at the end of the award's stated performance period and, if a payout is warranted, applied to the target number of restricted stock units awarded. The performance shares will immediately vest 50 percent at the end of the three-year performance period, with the remaining 50 percent vesting at the end of the following year. Grants from the performance programs outstanding at December 31, 2019, are as described below:

- In January 2016, the Company's Board of Directors approved the 2016 Performance Program, pursuant to the 2011 Plan. Eligible employees received initial stock-settled conditional restricted stock unit awards totaling 871,369. The results for the performance period ending December 31, 2018, yielded a payout of 100 percent of target. A total of 325,008 units were outstanding as of December 31, 2019.

- In January 2017, the Company's Board of Directors approved the 2017 Performance Program, pursuant to the 2016 Plan. Eligible employees received initial stock-settled conditional restricted stock unit awards totaling 620,885 units. A total of 455,499 units were outstanding as of December 31, 2019. The results for the performance period yielded a payout of 54 percent of target.

- In January 2018, the Company's Board of Directors approved the 2018 Performance Program, pursuant to the 2016 Plan. Eligible employees received initial cash-settled conditional phantom units totaling 931,049 units. The actual amount of shares awarded will be between zero and 200 percent of target. A total of 796,829 phantom units were outstanding as of December 31, 2019, from which a minimum of zero to a maximum of 1,593,658 phantom units could be awarded.

- In January 2019, the Company's Board of Directors approved the 2019 Performance Program, pursuant to the 2016 Plan. Eligible employees received initial cash-settled conditional phantom units totaling 1,679,832 units. The actual amount of shares awarded will be between zero and 200 percent of target. A total of 1,523,360 phantom units were outstanding as of December 31, 2019, from which a minimum of zero to a maximum of 3,046,720 phantom units could be awarded.

The fair value cost of the stock-settled awards was estimated on the date of grant and is being recorded as compensation expense ratably over the vesting terms. The fair value of the cash-settled awards are remeasured at the end of each reporting period over the vesting terms. During 2019, 2018, and 2017, $24 million, $38 million, and $23 million, respectively, were charged to expense. During 2019, 2018, and 2017, $3 million, $7 million, and $4 million were capitalized, respectively.

A summary of stock-settled conditional restricted stock unit activity for the year ended December 31, 2019, is presented below:

Stock-settled Conditional Restricted Stock Units	**Shares**	**Weighted Average Grant-Date Fair Value**[1]
	(In thousands)	
Non-vested, beginning of year	1,347	$ 49.58
Granted	345	32.75
Vested	(510)	45.62
Forfeited	(71)	53.96
Expired	(330)	29.78
Non-vested, end of year[2][3]	781	52.69

(1) The fair value of each conditional restricted stock unit award is estimated as of the date of grant using a Monte Carlo simulation with the following assumptions used for all grants made under the plan: (i) a three-year continuous risk-free interest rate; (ii) a constant volatility assumption based on the historical realized stock price volatility of the Company and the designated peer group; and (iii) the historical stock prices and expected dividends of the common stock of the Company and its designated peer group.
(2) As of December 31, 2019, there was $2 million of total unrecognized compensation cost related to 780,507 unvested stock-settled conditional restricted stock units.
(3) As of December 31, 2019, the weighted-average remaining life of the unvested stock-settled conditional restricted stock units is approximately 0.3 years.

A summary of cash-settled conditional restricted stock unit activity for the year ended December 31, 2019, is presented below:

Cash-settled Conditional Restricted Stock Phantom Units	**Phantom Units**
	(In thousands)
Non-vested, beginning of year	890
Granted	1,680
Vested	(2)
Forfeited	(248)
Non-vested, end of year[1]	2,320

(1) As of December 31, 2019, the outstanding liability for the unvested cash-settled conditional restricted stock units that has not been recognized was approximately $26 million.

In January 2020, the Company's Board of Directors approved the 2020 Performance Program, pursuant to the 2016 Plan. Payout for 50 percent of the shares is based upon measurement of total shareholder return (TSR) of Apache common stock as compared to a designated peer group and the S&P 500 Index during a three-year performance period. Payout for the remaining 50 percent of the shares is based on performance and financial objectives as defined in the plan. Eligible employees received the initial cash-settled conditional phantom units totaling 1,658,781 units, with the ultimate number of phantom units to be awarded ranging from zero to a maximum of 3,317,562 units. These phantom units represent a hypothetical interest in the Company's stock, and, once vested, are settled in cash. The TSR component of the award had a grant date fair value per award of $33.77 based on a Monte Carlo simulation. The grant date fair value per award for the remaining 50 percent was $25.69 based on the weighted-average fair market value of a share of common stock of the Company as of the grant date. These phantom units will be classified as a liability and remeasured at the end of each reporting period.

15. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

Components of accumulated other comprehensive income (loss) include the following:

	As of December 31,		
	2019	2018	2017
	(In millions)		
Share of equity method interests other comprehensive loss	$ (1)	$ —	$ —
Pension and postretirement benefit plan (Note 12)	17	4	4
Accumulated other comprehensive income	$ 16	$ 4	$ 4

16. MAJOR CUSTOMERS

For the years ended 2019, 2018, and 2017, the customers, including their subsidiaries, that represented more than 10 percent of the Company's worldwide oil and gas production revenues were as follows:

	For the Year Ended December 31,		
	2019	2018	2017
BP plc(1)	10%	17%	12%
China Petroleum & Chemical Corporation (Sinopec)(2)	11%	15%	16%
Egyptian General Petroleum Corporation(3)	9%	10%	11%

(1) Sales to BP plc were reported as revenue in the Company's U.S., Egypt, and North Sea upstream segments in the years ended 2019, 2018, and 2017.
(2) Sales to Sinopec were reported as revenue in the Company's Egypt upstream segment in the year ended 2019 and in the Company's Egypt and North Sea upstream segments in the years ended 2018 and 2017.
(3) Sales to EGPC were reported as revenue in the Company's Egypt upstream segment in the years ended 2019, 2018, and 2017.

17. BUSINESS SEGMENT INFORMATION

As of December 31, 2019, Apache is engaged in exploration and production (Upstream) activities across three operating segments: Egypt, North Sea, and the U.S. Apache also has exploration interests in Suriname and other international locations that may, over time, result in reportable discoveries and development opportunities. Apache's Upstream business explores for, develops, and produces natural gas, crude oil and natural gas liquids. During 2018, Apache established a new reporting segment for its U.S. midstream business separate from its upstream oil and gas development activities. The midstream business is operated by Altus, which owns, develops, and operates a midstream energy asset network in the Permian Basin of West Texas, anchored by midstream service contracts to Apache's production from its Alpine High resource play. Additionally, Altus owns equity interests in a total of four Permian Basin pipelines that will access various points along the Texas Gulf Coast, providing it with fully integrated, wellhead-to-water connectivity. Financial information for each segment is presented below:

	Egypt[1]	North Sea	U.S.	Altus Midstream	Intersegment Eliminations & Other	Total[2]
	Upstream					
	(In millions)					
2019						
Oil revenues	$ 1,969	$ 1,163	$ 2,098	$ —	$ —	$ 5,230
Natural gas revenues	295	90	293	—	—	678
Natural gas liquids revenues	12	23	372	—	—	407
Oil and gas production revenues	2,276	1,276	2,763	—	—	6,315
Midstream service affiliate revenues	—	—	—	136	(136)	—
Operating Expenses:						
Lease operating expenses	484	320	645	—	(2)	1,447
Gathering, processing, and transmission	40	45	299	56	(134)	306
Taxes other than income	—	—	194	13	—	207
Exploration	100	2	688	—	15	805
Depreciation, depletion, and amortization	708	366	1,566	40	—	2,680
Asset retirement obligation accretion	—	76	29	2	—	107
Impairments	—	—	1,648	1,301	—	2,949
	1,332	809	5,069	1,412	(121)	8,501
Operating Income (Loss)	$ 944	$ 467	$ (2,306)	$ (1,276)	$ (15)	(2,186)
Other Income (Expense):						
Gain on divestitures, net						43
Other[3]						53
General and administrative						(406)
Transaction, reorganization, and separation						(50)
Financing costs, net						(462)
Loss Before Income Taxes						$ (3,008)
Net Property and Equipment	$ 2,573	$ 1,956	$ 9,385	$ 206	$ 38	$ 14,158
Total Assets[5]	$ 3,700	$ 2,473	$ 10,388	$ 1,479	$ 67	$ 18,107
Additions to Net Property and Equipment	$ 454	$ 183	$ 1,696	$ 308	$ 93	$ 2,734

	Egypt[1]	North Sea	U.S.	Altus Midstream	Intersegment Eliminations & Other	Total[2]
	Upstream					
	(In millions)					
2018						
Oil revenues	$ 2,396	$ 1,179	$ 2,271	$ —	$ —	$ 5,846
Natural gas revenues	339	122	458	—	—	919
Natural gas liquids revenues	13	20	550	—	—	583
Oil and gas production revenues	2,748	1,321	3,279	—	—	7,348
Midstream service affiliate revenues	—	—	—	77	(77)	—
Operating Expenses:						
Lease operating expenses	428	341	670	—	—	1,439
Gathering, processing, and transmission	47	42	282	54	(77)	348
Taxes other than income	—	—	207	8	—	215
Exploration	88	192	219	—	4	503
Depreciation, depletion, and amortization	745	375	1,266	19	—	2,405
Asset retirement obligation accretion	—	75	32	1	—	108
Impairments	63	10	438	—	—	511
	1,371	1,035	3,114	82	(73)	5,529
Operating Income (Loss)	$ 1,377	$ 286	$ 165	$ (5)	$ (4)	1,819
Other Income (Expense):						
Gain on divestitures, net						23
Other[3]						53
General and administrative						(431)
Transaction, reorganization, and separation						(28)
Financing costs, net						(478)
Income Before Income Taxes						$ 958
Net Property and Equipment	$ 2,856	$ 2,148	$ 12,145	$ 1,227	$ 45	$ 18,421
Total Assets[5]	$ 4,260	$ 2,456	$ 12,962	$ 1,857	$ 47	$ 21,582
Additions to Net Property and Equipment	$ 594	$ 223	$ 2,544	$ 545	$ 8	$ 3,914

	Egypt	North Sea	Canada[4]	U.S.	Altus Midstream	Intersegment Eliminations & Other	Total[2]
	Upstream						
				(In millions)			
2017							
Oil revenues	$ 1,901	$ 971	$ 110	$ 1,616	$ —	$ —	$ 4,598
Natural gas revenues	395	92	104	368	—	—	959
Natural gas liquids revenues	11	15	17	287	—	—	330
Oil and gas production revenues	2,307	1,078	231	2,271	—	—	5,887
Midstream service affiliate revenues	—	—	—	—	15	(15)	—
Operating Expenses:							
Lease operating expenses	362	335	103	584	—	—	1,384
Gathering, processing, and transmission	44	30	34	86	16	(15)	195
Taxes other than income	—	(14)	12	153	—	—	151
Exploration	62	86	11	363	—	27	549
Depreciation, depletion, and amortization	758	446	76	994	6	—	2,280
Asset retirement obligation accretion	—	72	27	31	—	—	130
Impairments	—	8	—	—	—	—	8
	1,226	963	263	2,211	22	12	4,697
Operating Income (Loss)	$ 1,081	$ 115	$ (32)	$ 60	$ (7)	$ (27)	1,190
Other Income (Expense):							
Gain on divestitures, net							627
Other[3]							(91)
General and administrative							(395)
Transaction, reorganization, and separation							(16)
Financing costs, net							(397)
Income Before Income Taxes							$ 918
Net Property and Equipment	$ 3,099	$ 2,553	$ —	$ 11,370	$ 700	$ 37	$ 17,759
Total Assets[5]	$ 4,658	$ 2,977	$ —	$ 13,522	$ 706	$ 59	$ 21,922
Additions to Net Property and Equipment	$ 517	$ 374	$ —	$ 1,847	$ 550	$ 14	$ 3,302

(1) Includes revenue from non-customers for the years ended 2019 and 2018 of:

	For the Year Ended December 31, 2019	2018
	(In millions)	
Oil	$ 410	$ 592
Natural gas	40	58
Natural gas liquids	1	2

(2) Includes a noncontrolling interest in Egypt for years 2019, 2018, and 2017, and Altus for the years 2019 and 2018.

(3) Included in Other are sales proceeds related to U.S. third-party purchased oil and gas volumes which are determined to be revenue from customers. Proceeds for these volumes totaled $176 million and $357 million for the years ended 2019 and 2018, respectively.

(4) During 2017, Apache completed the sale of its Canadian operations. For more information regarding this divestiture, please refer to Note 2—Acquisitions and Divestitures.

(5) Intercompany balances are excluded from total assets.

18. SUPPLEMENTAL OIL AND GAS DISCLOSURES (Unaudited)

Oil and Gas Operations

The following table sets forth revenue and direct cost information relating to the Company's oil and gas exploration and production activities. Apache has no long-term agreements to purchase oil or gas production from foreign governments or authorities.

	United States	Canada(3)	Egypt(4)	North Sea	Other International	Total(4)
	(In millions, except per boe)					
2019						
Oil and gas production revenues	$ 2,763	$ —	$ 2,276	$ 1,276	$ —	$ 6,315
Operating cost:						
Depreciation, depletion, and amortization(1)	1,508	—	641	363	—	2,512
Asset retirement obligation accretion	29	—	—	76	—	105
Lease operating expenses	645	—	484	320	—	1,449
Gathering, processing, and transmission	299	—	40	45	—	384
Exploration expenses	688	—	100	2	15	805
Impairments related to oil and gas properties	1,633	—	—	—	—	1,633
Production taxes(2)	191	—	—	—	—	191
Income tax	(468)	—	455	188	—	175
	4,525	—	1,720	994	15	7,254
Results of operations	$ (1,762)	$ —	$ 556	$ 282	$ (15)	$ (939)
2018						
Oil and gas production revenues	$ 3,279	$ —	$ 2,748	$ 1,321	$ —	$ 7,348
Operating cost:						
Depreciation, depletion, and amortization(1)	1,206	—	688	371	—	2,265
Asset retirement obligation accretion	32	—	—	75	—	107
Lease operating expenses	670	—	428	341	—	1,439
Gathering, processing, and transmission	282	—	47	42	—	371
Exploration expenses	219	—	88	192	4	503
Impairments related to oil and gas properties	265	—	63	10	—	338
Production taxes(2)	203	—	—	—	—	203
Income tax	87	—	645	116	—	848
	2,964	—	1,959	1,147	4	6,074
Results of operations	$ 315	$ —	$ 789	$ 174	$ (4)	$ 1,274
2017						
Oil and gas production revenues	$ 2,271	$ 231	$ 2,307	$ 1,078	$ —	$ 5,887
Operating cost:						
Depreciation, depletion, and amortization(1)	924	72	707	433	—	2,136
Asset retirement obligation accretion	31	27	—	72	—	130
Lease operating expenses	584	103	362	335	—	1,384
Gathering, processing, and transmission	86	34	44	30	—	194
Exploration expenses	363	11	62	86	27	549
Production taxes(2)	153	11	—	(14)	—	150
Income tax	45	(7)	509	54	—	601
	2,186	251	1,684	996	27	5,144
Results of operations	$ 85	$ (20)	$ 623	$ 82	$ (27)	$ 743

(1) This amount only reflects DD&A of capitalized costs of oil and gas properties and, therefore, does not agree with DD&A reflected on Note 17—Business Segment Information.
(2) Only reflects amounts directly related to oil and gas producing properties and, therefore, does not agree with taxes other than income reflected on Note 17—Business Segment Information.
(3) During the third quarter of 2017, Apache completed the sale of its Canadian operations. For more information regarding this divestiture, please refer to Note 2—Acquisitions and Divestitures
(4) Includes noncontrolling interest in Egypt.

Costs Incurred in Oil and Gas Property Acquisitions, Exploration, and Development Activities

	United States	Canada	Egypt[2]	North Sea	Other International	Total[2]
	(In millions)					
2019						
Acquisitions:						
Proved	$ 3	$ —	$ 5	$ —	$ —	$ 8
Unproved	47	—	10	—	—	57
Exploration	162	—	139	62	105	468
Development	1,500	—	374	119	3	1,996
Costs incurred[1]	$ 1,712	$ —	$ 528	$ 181	$ 108	$ 2,529
[1] Includes capitalized interest and asset retirement costs as follows:						
Capitalized interest	$ 23	$ —	$ —	$ 5	$ 4	$ 32
Asset retirement costs	14	—	—	(111)	—	(97)
2018						
Acquisitions:						
Proved	$ —	$ —	$ 6	$ —	$ —	$ 6
Unproved	111	—	16	—	—	127
Exploration	640	—	175	113	12	940
Development	1,791	—	457	133	—	2,381
Costs incurred[1]	$ 2,542	$ —	$ 654	$ 246	$ 12	$ 3,454
[1] Includes capitalized interest and asset retirement costs as follows:						
Capitalized interest	$ 23	$ —	$ —	$ 11	$ 2	$ 36
Asset retirement costs	93	—	—	(62)	—	31
2017						
Acquisitions:						
Proved	$ 3	$ —	$ 4	$ —	$ —	$ 7
Unproved	136	5	40	—	—	181
Exploration	602	11	122	131	25	891
Development	1,118	52	387	250	—	1,807
Costs incurred[1]	$ 1,859	$ 68	$ 553	$ 381	$ 25	$ 2,886
[1] Includes capitalized interest and asset retirement costs as follows:						
Capitalized interest	$ 23	$ 2	$ —	$ 17	$ 2	$ 44
Asset retirement costs	15	—	—	55	—	70

[2] Includes a noncontrolling interest in Egypt.

Capitalized Costs

The following table sets forth the capitalized costs and associated accumulated depreciation, depletion, and amortization relating to the Company's oil and gas acquisition, exploration, and development activities:

	United States	Egypt[(1)]	North Sea	Other International	Total[(1)]
			(In millions)		
2019					
Proved properties	$ 20,291	$ 11,614	$ 8,635	$ —	$ 40,540
Unproved properties	509	109	10	38	666
	20,800	11,723	8,645	38	41,206
Accumulated DD&A	(11,783)	(9,377)	(6,700)	—	(27,860)
	$ 9,017	$ 2,346	$ 1,945	$ 38	$ 13,346
2018					
Proved properties	$ 22,699	$ 11,184	$ 8,462	$ —	$ 42,345
Unproved properties	1,275	110	5	45	1,435
	23,974	11,294	8,467	45	43,780
Accumulated DD&A	(12,217)	(8,736)	(6,332)	—	(27,285)
	$ 11,757	$ 2,558	$ 2,135	$ 45	$ 16,495

(1) Includes a noncontrolling interest in Egypt.

Oil and Gas Reserve Information

Proved oil and gas reserves are those quantities of natural gas, crude oil, condensate, and NGLs, which by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations. Estimated proved developed oil and gas reserves can be expected to be recovered through existing wells with existing equipment and operating methods. The Company reports all estimated proved reserves held under production-sharing arrangements utilizing the "economic interest" method, which excludes the host country's share of reserves.

Estimated reserves that can be produced economically through application of improved recovery techniques are included in the "proved" classification when successful testing by a pilot project or the operation of an active, improved recovery program using reliable technology establishes the reasonable certainty for the engineering analysis on which the project or program is based. Economically producible means a resource that generates revenue that exceeds, or is reasonably expected to exceed, the costs of the operation. Reasonable certainty means a high degree of confidence that the quantities will be recovered. Reliable technology is a grouping of one or more technologies (including computational methods) that has been field-tested and has been demonstrated to provide reasonably certain results with consistency and repeatability in the formation being evaluated or in an analogous formation. In estimating its proved reserves, Apache uses several different traditional methods that can be classified in three general categories: (1) performance-based methods; (2) volumetric-based methods; and (3) analogy with similar properties. Apache will, at times, utilize additional technical analysis such as computer reservoir models, petrophysical techniques, and proprietary 3-D seismic interpretation methods to provide additional support for more complex reservoirs. Information from this additional analysis is combined with traditional methods outlined above to enhance the certainty of the Company's reserve estimates.

There are numerous uncertainties inherent in estimating quantities of proved reserves and projecting future rates of production and timing of development expenditures. The reserve data in the following tables only represent estimates and should not be construed as being exact.

	Crude Oil and Condensate (Thousands of barrels)				
	United States	Canada	Egypt(1)	North Sea	Total(1)
Proved developed reserves:					
December 31, 2016	300,900	51,508	138,771	91,138	582,317
December 31, 2017	304,279	—	124,568	92,598	521,445
December 31, 2018	300,484	—	110,014	104,491	514,989
December 31, 2019	278,145	—	103,573	101,712	483,430
Proved undeveloped reserves:					
December 31, 2016	21,088	7,906	20,187	10,784	59,965
December 31, 2017	31,904	—	16,198	14,013	62,115
December 31, 2018	45,182	—	9,484	11,278	65,944
December 31, 2019	46,716	—	10,831	10,049	67,596
Total proved reserves:					
Balance December 31, 2016	321,988	59,414	158,958	101,922	642,282
Extensions, discoveries and other additions	48,391	14,025	27,140	16,023	105,579
Purchases of minerals in-place	46	375	—	—	421
Revisions of previous estimates	825	1,829	(9,839)	6,510	(675)
Production	(33,394)	(2,425)	(35,493)	(17,844)	(89,156)
Sales of minerals in-place	(1,673)	(73,218)	—	—	(74,891)
Balance December 31, 2017	336,183	—	140,766	106,611	583,560
Extensions, discoveries and other additions	61,976	—	22,473	15,682	100,131
Purchases of minerals in-place	140	—	—	—	140
Revisions of previous estimates	(14,334)	—	(9,556)	10,613	(13,277)
Production	(38,252)	—	(34,185)	(17,137)	(89,574)
Sales of minerals in-place	(47)	—	—	—	(47)
Balance December 31, 2018	345,666	—	119,498	115,769	580,933
Extensions, discoveries and other additions	52,297	—	21,039	9,017	82,353
Purchases of minerals in-place	—	—	—	—	—
Revisions of previous estimates	(16,446)	—	4,752	5,132	(6,562)
Production	(38,344)	—	(30,885)	(18,157)	(87,386)
Sales of minerals in-place	(18,312)	—	—	—	(18,312)
Balance December 31, 2019	324,861	—	114,404	111,761	551,026

(1) 2019, 2018, 2017, and 2016 includes proved reserves of 38 MMbbls, 40 MMbbls, 47 MMbbls, and 53 MMbbls, respectively, attributable to a noncontrolling interest in Egypt.

	Natural Gas Liquids (Thousands of barrels)				
	United States	Canada	Egypt[1]	North Sea	Total[1]
Proved developed reserves:					
December 31, 2016	155,124	13,866	1,266	1,627	171,883
December 31, 2017	171,005	—	685	2,025	173,715
December 31, 2018	197,574	—	502	1,938	200,014
December 31, 2019	158,794	—	667	2,317	161,778
Proved undeveloped reserves:					
December 31, 2016	17,311	2,473	131	646	20,561
December 31, 2017	29,559	—	39	353	29,951
December 31, 2018	33,796	—	60	631	34,487
December 31, 2019	23,569	—	90	660	24,319
Total proved reserves:					
Balance December 31, 2016	172,435	16,339	1,397	2,273	192,444
Extensions, discoveries and other additions	33,806	1,794	50	845	36,495
Purchases of minerals in-place	206	199	—	—	405
Revisions of previous estimates	12,982	(1,060)	(425)	(321)	11,176
Production	(17,766)	(1,032)	(298)	(419)	(19,515)
Sales of minerals in-place	(1,099)	(16,240)	—	—	(17,339)
Balance December 31, 2017	200,564	—	724	2,378	203,666
Extensions, discoveries and other additions	60,990	—	144	1,444	62,578
Purchases of minerals in-place	40	—	—	—	40
Revisions of previous estimates	(9,250)	—	31	(819)	(10,038)
Production	(20,969)	—	(337)	(434)	(21,740)
Sales of minerals in-place	(5)	—	—	—	(5)
Balance December 31, 2018	231,370	—	562	2,569	234,501
Extensions, discoveries and other additions	41,343	—	27	697	42,067
Purchases of minerals in-place	—	—	—	—	—
Revisions of previous estimates	(32,569)	—	508	345	(31,716)
Production	(24,959)	—	(340)	(634)	(25,933)
Sales of minerals in-place	(32,822)	—	—	—	(32,822)
Balance December 31, 2019	182,363	—	757	2,977	186,097

(1) 2019, 2018, 2017, and 2016 includes proved reserves of 252 Mbbls, 187 Mbbls, 241 Mbbls, and 466 Mbbls, respectively, attributable to a noncontrolling interest in Egypt.

	Natural Gas (Millions of cubic feet)				
	United States	Canada	Egypt(1)	North Sea	Total(1)
Proved developed reserves:					
December 31, 2016	1,200,379	553,724	675,559	86,948	2,516,610
December 31, 2017	1,347,009	—	540,667	83,342	1,971,018
December 31, 2018	1,626,403	—	476,132	95,347	2,197,882
December 31, 2019	945,938	—	433,382	106,329	1,485,649
Proved undeveloped reserves:					
December 31, 2016	231,304	45,312	42,109	23,813	342,538
December 31, 2017	297,226	—	47,255	11,063	355,544
December 31, 2018	267,090	—	33,006	15,804	315,900
December 31, 2019	115,040	—	24,704	16,604	156,348
Total proved reserves:					
Balance December 31, 2016	1,431,683	599,036	717,668	110,761	2,859,148
Extensions, discoveries and other additions	378,747	49,780	81,245	17,646	527,418
Purchases of minerals in-place	4,434	4,319	—	—	8,753
Revisions of previous estimates	(5,431)	92,207	(70,030)	(17,387)	(641)
Production	(143,943)	(47,990)	(140,961)	(16,615)	(349,509)
Sales of minerals in-place	(21,255)	(697,352)	—	—	(718,607)
Balance December 31, 2017	1,644,235	—	587,922	94,405	2,326,562
Extensions, discoveries and other additions	704,135	—	79,394	55,274	838,803
Purchases of minerals in-place	906	—	—	—	906
Revisions of previous estimates	(239,204)	—	(38,892)	(21,933)	(300,029)
Production	(216,538)	—	(119,286)	(16,595)	(352,419)
Sales of minerals in-place	(41)	—	—	—	(41)
Balance December 31, 2018	1,893,493	—	509,138	111,151	2,513,782
Extensions, discoveries and other additions	249,205	—	34,758	27,711	311,674
Purchases of minerals in-place	—	—	—	—	—
Revisions of previous estimates	(509,753)	—	18,570	4,015	(487,168)
Production	(233,447)	—	(104,380)	(19,944)	(357,771)
Sales of minerals in-place	(338,520)	—	—	—	(338,520)
Balance December 31, 2019	1,060,978	—	458,086	122,933	1,641,997

(1) 2019, 2018, 2017, and 2016 include proved reserves of 153 Bcf, 170 Bcf, 196 Bcf, and 239 Bcf, respectively, attributable to a noncontrolling interest in Egypt.

	Total Equivalent Reserves (Thousands barrels of oil equivalent)				
	United States	Canada	Egypt(1)	North Sea	Total(1)
Proved developed reserves:					
December 31, 2016	656,087	157,662	252,630	107,256	1,173,635
December 31, 2017	699,786	—	215,364	108,513	1,023,663
December 31, 2018	769,125	—	189,871	122,320	1,081,316
December 31, 2019	594,595	—	176,470	121,751	892,816
Proved undeveloped reserves:					
December 31, 2016	76,950	17,931	27,336	15,399	137,616
December 31, 2017	111,001	—	24,112	16,210	151,323
December 31, 2018	123,493	—	15,045	14,543	153,081
December 31, 2019	89,458	—	15,038	13,476	117,972
Total proved reserves:					
Balance December 31, 2016	733,037	175,593	279,966	122,655	1,311,251
Extensions, discoveries and other additions	145,322	24,115	40,731	19,809	229,977
Purchases of minerals in-place	991	1,294	—	—	2,285
Revisions of previous estimates	12,903	16,136	(21,936)	3,291	10,394
Production	(75,151)	(11,455)	(59,285)	(21,032)	(166,923)
Sales of minerals in-place	(6,315)	(205,683)	—	—	(211,998)
Balance December 31, 2017	810,787	—	239,476	124,723	1,174,986
Extensions, discoveries and other additions	240,322	—	35,849	26,338	302,509
Purchases of minerals in-place	331	—	—	—	331
Revisions of previous estimates	(63,451)	—	(16,007)	6,139	(73,319)
Production	(95,312)	—	(54,402)	(20,337)	(170,051)
Sales of minerals in-place	(59)	—	—	—	(59)
Balance December 31, 2018	892,618	—	204,916	136,863	1,234,397
Extensions, discoveries and other additions	135,174	—	26,859	14,333	176,366
Purchases of minerals in-place	—	—	—	—	—
Revisions of previous estimates	(133,974)	—	8,355	6,146	(119,473)
Production	(102,211)	—	(48,622)	(22,115)	(172,948)
Sales of minerals in-place	(107,554)	—	—	—	(107,554)
Balance December 31, 2019	684,053	—	191,508	135,227	1,010,788

(1) 2019, 2018, 2017, and 2016 include total proved reserves of 64 MMboe, 68 MMboe, 80MMboe, and 93 MMboe, respectively, attributable to a noncontrolling interest in Egypt.

During 2019, Apache added approximately 176 MMboe from extensions, discoveries, and other additions. The Company recorded 135 MMboe of exploration and development adds in the United States, primarily associated with Woodford, Bone Springs, Spraberry, Barnett, and Wolfcamp drilling programs in the Permian Basin (129 MMboe) and various offset drilling activity in the Midcontinent region (6 MMboe). The international regions contributed 41 MMboe of exploration and development adds during 2019, with Egypt contributing 27 MMboe from onshore exploration and appraisal activity in the Khalda Extension 2, Khalda, Khalda Extension 3, East Bahariya Extension 3, and West Kanayis concessions. The North Sea contributed 14 MMboe from drilling success in the Beryl and Forties fields. Apache had combined downward revisions of previously estimated reserves of 119 MMboe. Downward revisions related to changes in product prices accounted for 139 MMboe and engineering and performance upward revisions accounted for 20 MMboe. The Company also sold 107 MMboe of proved reserves associated with U.S. divestitures, primarily related to the sale of the Company's Woodford-SCOOP and STACK plays and western Anadarko Basin assets.

During 2018, Apache added approximately 303 MMboe from extensions, discoveries, and other additions. The Company recorded 240 MMboe of exploration and development adds in the United States, primarily associated with Woodford, Bone Springs, Yeso, Barnett, and Wolfcamp drilling programs in the Permian Basin (217 MMboe) and Woodford and Austin Chalk drilling activity in the Midcontinent region (20 MMboe). The international regions contributed 62 MMboe of exploration and development adds during 2018, with Egypt contributing 36 MMboe from onshore exploration and appraisal activity in the Khalda Extension 2, Khalda, Khalda Extension 3, Matruh, and West Kalabsha concessions. The North Sea contributed 26 MMboe from drilling success in the Beryl and Forties fields. Apache had combined downward revisions of previously estimated reserves of 73 MMboe. Downward revisions related to changes in product prices accounted for 24 MMboe, interest revisions accounted for 5 MMboe, and engineering and performance downward revisions accounted for 44 MMboe.

During 2017, Apache sold a combined 212 MMboe primarily through divestiture transactions in Canada. The Company added 2 MMboe of estimated proved reserves through purchases of minerals in-place and 230 MMboe from extensions, discoveries, and other additions. The Company recorded 169 MMboe of exploration and development adds in North America, primarily associated with Woodford, Bone Springs, Yeso, Barnett, and Wolfcamp drilling programs in the Permian Basin (128 MMboe), Montney and Duverney drilling in Canada (24 MMboe), and Woodford and Austin Chalk drilling activity in the Midcontinent region (17 MMboe). The international regions contributed 61 MMboe of exploration and development adds during 2017 with Egypt contributing 41 MMboe from onshore exploration and appraisal activity in the Khalda Extension 2, Khalda, Khalda Extension 3, Matruh, and West Kalabsha concessions. The North Sea offshore region contributed 20 MMboe from drilling success in the Beryl and Forties fields. Apache had combined upward revisions of previously estimated reserves of 10 MMboe. Changes in product prices accounted for 32 MMboe, offset by engineering and performance downward revisions totaling 22 MMboe.

Approximately 10 percent of Apache's year-end 2019 estimated proved developed reserves are classified as proved not producing. These reserves relate to zones that are either behind pipe, or that have been completed but not yet produced, or zones that have been produced in the past, but are not now producing because of mechanical reasons. These reserves are considered to be a lower tier of reserves than producing reserves because they are frequently based on volumetric calculations rather than performance data. Future production associated with behind pipe reserves is scheduled to follow depletion of the currently producing zones in the same wellbores. Additional capital may have to be spent to access these reserves. The capital and economic impact of production timing are reflected in this Note 18, under "Future Net Cash Flows."

Future Net Cash Flows

Future cash inflows as of December 31, 2019, 2018, and 2017 were calculated using an unweighted arithmetic average of oil and gas prices in effect on the first day of each month in the respective year, except where prices are defined by contractual arrangements. Operating costs, production and ad valorem taxes and future development costs are based on current costs with no escalation. Future development costs include abandonment and dismantlement costs.

The following table sets forth unaudited information concerning future net cash flows for proved oil and gas reserves, net of income tax expense. Income tax expense has been computed using expected future tax rates and giving effect to tax deductions and credits available, under current laws, and which relate to oil and gas producing activities. This information does not purport to present the fair market value of the Company's oil and gas assets, but does present a standardized disclosure concerning possible future net cash flows that would result under the assumptions used.

	United States	Egypt[2]	North Sea	Total[2]
	(In millions)			
2019				
Cash inflows	$ 21,694	$ 8,306	$ 7,454	$ 37,454
Production costs	(10,642)	(1,847)	(2,730)	(15,219)
Development costs	(1,740)	(707)	(2,651)	(5,098)
Income tax expense	(27)	(1,930)	(784)	(2,741)
Net cash flows	9,285	3,822	1,289	14,396
10 percent discount rate	(4,003)	(808)	297	(4,514)
Discounted future net cash flows[1]	$ 5,282	$ 3,014	$ 1,586	$ 9,882
2018				
Cash inflows	$ 29,906	$ 9,866	$ 9,206	$ 48,978
Production costs	(13,699)	(1,799)	(2,588)	(18,086)
Development costs	(2,150)	(792)	(2,714)	(5,656)
Income tax expense	(19)	(2,455)	(1,352)	(3,826)
Net cash flows	14,038	4,820	2,552	21,410
10 percent discount rate	(6,516)	(1,066)	(107)	(7,689)
Discounted future net cash flows[1]	$ 7,522	$ 3,754	$ 2,445	$ 13,721
2017				
Cash inflows	$ 24,271	$ 9,254	$ 6,230	$ 39,755
Production costs	(10,618)	(1,749)	(2,459)	(14,826)
Development costs	(1,659)	(1,052)	(2,795)	(5,506)
Income tax expense	(42)	(2,078)	(353)	(2,473)
Net cash flows	11,952	4,375	623	16,950
10 percent discount rate	(6,080)	(1,034)	247	(6,867)
Discounted future net cash flows[1]	$ 5,872	$ 3,341	$ 870	$ 10,083

(1) Estimated future net cash flows before income tax expense, discounted at 10 percent per annum, totaled approximately $12.4 billion, $16.9 billion, and $12.2 billion as of December 31, 2019, 2018, and 2017, respectively.

(2) Includes discounted future net cash flows of approximately $1.0 billion, $1.3 billion, and $1.1 billion in 2019, 2018, and 2017, respectively, attributable to a noncontrolling interest in Egypt.

The following table sets forth the principal sources of change in the discounted future net cash flows:

	For the Year Ended December 31,		
	2019	2018	2017
	(In millions)		
Sales, net of production costs	$ (4,291)	$ (5,335)	$ (4,158)
Net change in prices and production costs	(3,034)	3,902	3,651
Discoveries and improved recovery, net of related costs	2,042	3,889	2,273
Change in future development costs	(75)	47	(279)
Previously estimated development costs incurred during the period	983	910	719
Revision of quantities	(741)	(648)	(344)
Purchases of minerals in-place	—	6	9
Accretion of discount	1,693	1,216	952
Change in income taxes	720	(1,125)	(617)
Sales of minerals in-place	(817)	(1)	(809)
Change in production rates and other	(319)	777	626
	$ (3,839)	$ 3,638	$ 2,023

19. SUPPLEMENTAL QUARTERLY FINANCIAL DATA (Unaudited)

The following table summarizes quarterly financial data for 2019 and 2018:

	First	Second	Third	Fourth
	(In millions, except per share amounts)			
2019				
Oil and gas production revenues	$ 1,654	$ 1,598	$ 1,438	$ 1,625
Operating income (loss)(1)	408	124	175	(2,893)
Net income (loss) before income taxes	165	(152)	14	(3,035)
Net loss including noncontrolling interests	(2)	(316)	(117)	(3,247)
Net loss attributable to common stock	(47)	(360)	(170)	(2,976)
Net loss per common share(2):				
Basic	$ (0.12)	$ (0.96)	$ (0.45)	$ (7.89)
Diluted	$ (0.12)	$ (0.96)	$ (0.45)	$ (7.89)
2018				
Oil and gas production revenues	$ 1,733	$ 1,936	$ 1,976	$ 1,703
Operating income (loss)(1)	587	738	698	(204)
Net income (loss) before income taxes	388	508	406	(344)
Net income (loss) including noncontrolling interests	206	269	161	(350)
Net income (loss) attributable to common stock	145	195	81	(381)
Net income (loss) per common share(2):				
Basic	$ 0.38	$ 0.51	$ 0.21	$ (1.00)
Diluted	$ 0.38	$ 0.51	$ 0.21	$ (1.00)

(1) Operating expenses for 2019 include asset and leasehold impairments totaling $23 million, $279 million, $21 million, and $3.2 billion in the first, second, third, and fourth quarters of 2019, respectively. Operating expenses for 2018 include asset and leasehold impairments totaling $16 million, $21 million, $49 million, and $639 million in the first, second, third, and fourth quarters of 2018, respectively.

(2) The sum of the individual quarterly net income (loss) per common share amounts may not agree with full-year net income (loss) per common share as each quarterly computation is based on the weighted-average number of common shares outstanding during that period.

EXHIBIT 4.15

APACHE CORPORATION,
Issuer

to

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
Trustee

SECOND SUPPLEMENTAL INDENTURE

Dated as of December 16, 2019

to Indenture
Dated as of February 15, 1996

Debt Securities

SECOND SUPPLEMENTAL INDENTURE

SECOND SUPPLEMENTAL INDENTURE, dated as of December 16, 2019 (this "Second Supplemental Indenture"), among APACHE CORPORATION, a corporation duly organized and existing under the laws of the State of Delaware (the "Company"), and THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A. (as successor to JPMorgan Chase Bank, N.A., formerly The Chase Manhattan Bank, formerly Chemical Bank), a national banking association, as trustee under the Indenture referred to below (the "Trustee").

RECITALS OF THE COMPANY:

A. The Company has heretofore executed and delivered to the Trustee (as successor to JPMorgan Chase Bank, N.A., formerly The Chase Manhattan Bank, formerly Chemical Bank) an Indenture, dated as of February 15, 1996 (as heretofore amended and supplemented, the "Indenture"), providing for the issuance from time to time of the Company's senior unsecured debentures, notes, or other evidences of Indebtedness (herein and in the Indenture called the "Securities") in one or more series.

B. Pursuant to the Indenture, the Company has issued Securities which are Outstanding.

C. Section 901(12) of the Indenture provides that without the consent of any Holders of Securities or Coupons, the Company, when authorized by or pursuant to a Board Resolution, and the Trustee may enter into an indenture supplemental to the Indenture for the purpose of amending or supplementing any provision contained in the Indenture that does not materially adversely affect the interests of the Holders of any Securities then Outstanding.

D. This Second Supplemental Indenture is entered into pursuant to Section 901(12) of the Indenture to amend Section 704 of the Indenture to provide that information, documents, and reports filed with the EDGAR system of the Commission (or any successor system) and available publicly on the Internet shall be deemed to be filed with the Trustee.

E. The Company hereby requests that the Trustee join with the Company in the execution and delivery of this Second Supplemental Indenture, and the Company has provided the Trustee with a Board Resolution authorizing entry into amendments to the Indenture.

NOW, THEREFORE, the Company and the Trustee agree as follows:

ARTICLE I

Definitions

As used in this Second Supplemental Indenture, terms defined in the Indenture have the meaning set forth in the Indenture and the terms defined above have the meaning set forth above. The words "herein," "hereof" and "hereby" and other words of similar import used in this Second Supplemental Indenture refer to this Second Supplemental Indenture as a whole and not to any particular section hereof.

ARTICLE II

Amendment of Section 704

SECTION 2.1 Amendment of Section 704. Section 704 of the Indenture is amended and supplemented to add at the end thereof the following new paragraphs:

> "For purposes of this Section 704, any information, documents, and reports which are required to be filed pursuant to this Section 704 and which are filed with the EDGAR system of the Commission (or any successor system) and available publicly on the Internet shall be deemed to be filed with the Trustee, it being understood that the Trustee shall have no obligation to determine if any such information, documents, and reports have been so filed or are so available.
>
> Delivery of such information, documents, and reports to the Trustee is for informational purposes only, and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates)."

ARTICLE III

Miscellaneous

SECTION 3.1 Parties. Nothing expressed or mentioned herein is intended or shall be construed to give any Person, firm or corporation, other than the Holders and the Trustee, any legal or equitable right, remedy, or claim under or in respect of this Second Supplemental Indenture or the Indenture or any provision herein or therein contained.

SECTION 3.2 Governing Law. THIS SECOND SUPPLEMENTAL INDENTURE SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK. BY THE EXECUTION AND DELIVERY OF THIS SECOND SUPPLEMENTAL INDENTURE, THE COMPANY SUBMITS TO THE JURISDICTION OF ANY FEDERAL OR NEW YORK STATE COURT HAVING SUBJECT MATTER JURISDICTION, SITTING, IN EACH CASE, IN THE BOROUGH OF MANHATTAN, THE CITY OF NEW YORK, UNITED STATES OF AMERICA IN ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS SECOND SUPPLEMENTAL INDENTURE OR THE NOTES.

SECTION 3.3 Severability Clause. In case any provision in this Second Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and such provision shall be ineffective only to the extent of such invalidity, illegality, or unenforceability.

SECTION 3.4 Ratification of Indenture; Second Supplemental Indenture Part of Indenture. Except as expressly amended hereby, the Indenture is in all respects ratified and confirmed and all the terms, conditions, and provisions thereof shall remain in full force and effect. This Second Supplemental Indenture shall form a part of the Indenture for all purposes, and every Holder of Securities heretofore or hereafter authenticated and delivered shall be bound hereby. The Trustee makes no representation or warranty as to the validity or sufficiency of this Second Supplemental Indenture.

SECTION 3.5 Counterparts. The parties hereto may sign one or more copies of this Second Supplemental Indenture in counterparts, all of which together shall constitute one and the same agreement. The exchange of copies of this Second Supplemental Indenture and of signature pages by facsimile or electronic (*i.e.*, "pdf" or "tif") transmission shall constitute effective execution and delivery of this Indenture as to the parties hereto and may be used in lieu of the original Second Supplemental Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or electronic (*i.e.*, "pdf" or "tif") transmission shall be deemed to be their original signatures for all purposes.

SECTION 3.6 Headings. The headings of the Articles and the sections in this Second Supplemental Indenture are for convenience of reference only and shall not be deemed to alter or affect the meaning or interpretation of any provisions hereof.

SECTION 3.7 The Trustee. The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity, sufficiency or adequacy of this Second Supplemental Indenture or for or in respect of the statements or recitals contained herein, all of which recitals are made solely by the Company, and the Trustee assumes no responsibility for their correctness.

[SIGNATURE PAGES FOLLOW]

The parties have executed this Second Supplemental Indenture as of the date first above written.

APACHE CORPORATION

By: /s/ Ben C. Rodgers

Name: Ben C. Rodgers

Title: Vice President and Treasurer

[Signature Page – Second Supplemental Indenture (February 15, 1996 Indenture)]

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee

By: /s/ Lawrence M. Kusch
Name: Lawrence M. Kusch
Title: Vice President

[Signature Page – Second Supplemental Indenture (February 15, 1996 Indenture)]

EXHIBIT 4.18

APACHE CORPORATION
Company

to

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
Trustee

SECOND SUPPLEMENTAL INDENTURE

Dated as of December 16, 2019

to Indenture
Dated as of November 23, 1999

Debt Securities

SECOND SUPPLEMENTAL INDENTURE

SECOND SUPPLEMENTAL INDENTURE, dated as of December 16, 2019 (this "Second Supplemental Indenture"), among APACHE CORPORATION, a corporation duly organized and existing under the laws of the State of Delaware (as successor to Apache Finance Canada Corporation, the "Company"), and THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A. (as successor to JPMorgan Chase Bank, N.A., formerly The Chase Manhattan Bank), a national banking association, as trustee under the Indenture referred to below (the "Trustee").

RECITALS OF THE COMPANY:

A. The Company has heretofore executed and delivered to the Trustee (as successor to JPMorgan Chase Bank, N.A., formerly The Chase Manhattan Bank) an Indenture, dated as of November 23, 1999 (as heretofore amended and supplemented, the "Indenture"), providing for the issuance from time to time of the Company's senior unsecured debentures, notes or other evidences of Indebtedness (herein and in the Indenture called the "Securities") in one or more series.

B. Pursuant to the Indenture, the Company is obligor upon Securities which have been issued and are Outstanding.

C. Section 901(l) of the Indenture provides that without the consent of any Holders of Securities or Coupons, the Company, when authorized by or pursuant to a Board Resolution, and the Trustee may enter into an indenture supplemental to the Indenture for the purpose of amending or supplementing any provision contained in the Indenture that does not materially adversely affect the interests of the Holders of any Securities then Outstanding.

D. This Second Supplemental Indenture is entered into pursuant to Section 901(l) of the Indenture to amend Section 704 of the Indenture to provide that information, documents, and reports filed with the EDGAR system of the Commission (or any successor system) and available publicly on the Internet shall be deemed to be filed with the Trustee.

E. The Company hereby requests that the Trustee join with the Company in the execution and delivery of this Second Supplemental Indenture, and the Company has provided the Trustee with a Board Resolution authorizing entry into amendments to the Indenture.

NOW, THEREFORE, the Company and the Trustee agree as follows:

ARTICLE I

Definitions

As used in this Second Supplemental Indenture, terms defined in the Indenture have the meaning set forth in the Indenture and the terms defined above have the meaning set forth above. The words "herein," "hereof" and "hereby" and other words of similar import used in this Second Supplemental Indenture refer to this Second Supplemental Indenture as a whole and not to any particular section hereof.

ARTICLE II

Amendment of Section 704

SECTION 2.1 Amendment of Section 704. Section 704 of the Indenture is amended and supplemented to add at the end thereof the following new paragraphs:

> "For purposes of this Section 704, any information, documents, and reports which are required to be filed pursuant to this Section 704 and which are filed with the EDGAR system of the Commission (or any successor system) and available publicly on the Internet shall be deemed to be filed with the Trustee, it being understood that the Trustee shall have no obligation to determine if any such information, documents, and reports have been so filed or are so available.
>
> Delivery of such information, documents, and reports to the Trustee is for informational purposes only, and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates)."

ARTICLE III

Miscellaneous

SECTION 3.1 Parties. Nothing expressed or mentioned herein is intended or shall be construed to give any Person, firm or corporation, other than the Holders and the Trustee, any legal or equitable right, remedy, or claim under or in respect of this Second Supplemental Indenture or the Indenture or any provision herein or therein contained.

SECTION 3.2 Governing Law. THIS SECOND SUPPLEMENTAL INDENTURE SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK. BY THE EXECUTION AND DELIVERY OF THIS SECOND SUPPLEMENTAL INDENTURE, THE COMPANY SUBMITS TO THE JURISDICTION OF ANY FEDERAL OR NEW YORK STATE COURT HAVING SUBJECT MATTER JURISDICTION, SITTING, IN EACH CASE, IN THE BOROUGH OF MANHATTAN, THE CITY OF NEW YORK, UNITED STATES OF AMERICA IN ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS SECOND SUPPLEMENTAL INDENTURE OR THE NOTES.

SECTION 3.3 Severability Clause. In case any provision in this Second Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and such provision shall be ineffective only to the extent of such invalidity, illegality, or unenforceability.

SECTION 3.4 Ratification of Indenture; Second Supplemental Indenture Part of Indenture. Except as expressly amended hereby, the Indenture is in all respects ratified and confirmed and all the terms, conditions, and provisions thereof shall remain in full force and effect. This Second Supplemental Indenture shall form a part of the Indenture for all purposes, and every Holder of Securities heretofore or hereafter authenticated and delivered shall be bound hereby. The Trustee makes no representation or warranty as to the validity or sufficiency of this Second Supplemental Indenture.

SECTION 3.5 Counterparts. The parties hereto may sign one or more copies of this Second Supplemental Indenture in counterparts, all of which together shall constitute one and the same agreement. The exchange of copies of this Second Supplemental Indenture and of signature pages by facsimile or electronic (*i.e.*, "pdf" or "tif") transmission shall constitute effective execution and delivery of this Indenture as to the parties hereto and may be used in lieu of the original Second Supplemental Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or electronic (*i.e.*, "pdf" or "tif") transmission shall be deemed to be their original signatures for all purposes.

SECTION 3.6 Headings. The headings of the Articles and the sections in this Second Supplemental Indenture are for convenience of reference only and shall not be deemed to alter or affect the meaning or interpretation of any provisions hereof.

SECTION 3.7 The Trustee. The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity, sufficiency or adequacy of this Second Supplemental Indenture or for or in respect of the statements or recitals contained herein, all of which recitals are made solely by the Company, and the Trustee assumes no responsibility for their correctness.

[SIGNATURE PAGES FOLLOW]

The parties have executed this Second Supplemental Indenture as of the date first above written.

APACHE CORPORATION

By: /s/ Ben C. Rodgers
Name: Ben C. Rodgers
Title: Vice President and Treasurer

[Signature Page – Second Supplemental Indenture (November 23, 1999 Indenture)]

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee

By: /s/ Lawrence M. Kusch
Name: Lawrence M. Kusch
Title: Vice President

[Signature Page – Second Supplemental Indenture (November 23, 1999 Indenture)]

EXHIBIT 4.20

APACHE CORPORATION,
Issuer

to

WELLS FARGO BANK, NATIONAL ASSOCIATION,
Trustee

SUPPLEMENTAL INDENTURE

Dated as of December 16, 2019

to Indenture
Dated as of May 19, 2011

Debt Securities

SUPPLEMENTAL INDENTURE

SUPPLEMENTAL INDENTURE, dated as of December 16, 2019 (this "Supplemental Indenture"), among APACHE CORPORATION, a corporation duly organized and existing under the laws of the State of Delaware (the "Company"), and WELLS FARGO BANK, NATIONAL ASSOCIATION, a national banking association duly organized and existing under the laws of the United States of America, as trustee under the Indenture referred to below (the "Trustee").

RECITALS OF THE COMPANY:

A. The Company has heretofore executed and delivered to the Trustee an Indenture, dated as of May 19, 2011 (the "Indenture"), providing for the issuance from time to time of the Company's senior unsecured debentures, notes, or other evidences of Indebtedness (herein and in the Indenture called the "Securities") in one or more series.

B. Pursuant to the Indenture, the Company has issued Securities which are Outstanding.

C. Section 901(12) of the Indenture provides that without the consent of any Holders of Securities or Coupons, the Company, when authorized by or pursuant to a Board Resolution, and the Trustee may enter into an indenture supplemental to the Indenture for the purpose of amending or supplementing any provision contained in the Indenture that does not materially adversely affect the interests of the Holders of any Securities then Outstanding.

D. This Supplemental Indenture is entered into pursuant to Section 901(12) of the Indenture to amend Section 704 of the Indenture to provide that information, documents, and reports filed with the EDGAR system of the Commission (or any successor system) and available publicly on the Internet shall be deemed to be filed with the Trustee.

E. The Company hereby requests that the Trustee join with the Company in the execution and delivery of this Supplemental Indenture, and the Company has provided the Trustee with a Board Resolution authorizing entry into amendments to the Indenture.

NOW, THEREFORE, the Company and the Trustee agree as follows:

ARTICLE I

Definitions

As used in this Supplemental Indenture, terms defined in the Indenture have the meaning set forth in the Indenture and the terms defined above have the meaning set forth above. The words "herein," "hereof" and "hereby" and other words of similar import used in this Supplemental Indenture refer to this Supplemental Indenture as a whole and not to any particular section hereof.

ARTICLE II

Amendment of Section 704

SECTION 2.1 Amendment of Section 704. Section 704 of the Indenture is amended and supplemented to add at the end thereof the following new paragraphs:

> "For purposes of this Section 704, any information, documents, and reports which are required to be filed pursuant to this Section 704 and which are filed with the EDGAR system of the Commission (or any successor system) and available publicly on the Internet shall be deemed to be filed with the Trustee, it being understood that the Trustee shall have no obligation to determine if any such information, documents, and reports have been so filed or are so available.
>
> Delivery of such information, documents, and reports to the Trustee is for informational purposes only, and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates)."

ARTICLE III

Miscellaneous

SECTION 3.1 Parties. Nothing expressed or mentioned herein is intended or shall be construed to give any Person, firm or corporation, other than the Holders and the Trustee, any legal or equitable right, remedy, or claim under or in respect of this Supplemental Indenture or the Indenture or any provision herein or therein contained.

SECTION 3.2 Governing Law. THIS SUPPLEMENTAL INDENTURE SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK. BY THE EXECUTION AND DELIVERY OF THIS SUPPLEMENTAL INDENTURE, THE COMPANY SUBMITS TO THE JURISDICTION OF ANY FEDERAL OR NEW YORK STATE COURT HAVING SUBJECT MATTER JURISDICTION, SITTING, IN EACH CASE, IN THE BOROUGH OF MANHATTAN, THE CITY OF NEW YORK, UNITED STATES OF AMERICA IN ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS SUPPLEMENTAL INDENTURE OR THE NOTES.

SECTION 3.3 Severability Clause. In case any provision in this Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and such provision shall be ineffective only to the extent of such invalidity, illegality, or unenforceability.

SECTION 3.4 Ratification of Indenture; Supplemental Indenture Part of Indenture. Except as expressly amended hereby, the Indenture is in all respects ratified and confirmed and all the terms, conditions, and provisions thereof shall remain in full force and effect. This Supplemental Indenture shall form a part of the Indenture for all purposes, and every Holder of Securities heretofore or hereafter authenticated and delivered shall be bound hereby. The Trustee makes no representation or warranty as to the validity or sufficiency of this Supplemental Indenture.

SECTION 3.5 Counterparts. The parties hereto may sign one or more copies of this Supplemental Indenture in counterparts, all of which together shall constitute one and the same agreement. The exchange of copies of this Supplemental Indenture and of signature pages by facsimile or electronic (*i.e.*, “pdf” or “tif”) transmission shall constitute effective execution and delivery of this Indenture as to the parties hereto and may be used in lieu of the original Supplemental Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or electronic (*i.e.*, “pdf” or “tif”) transmission shall be deemed to be their original signatures for all purposes.

SECTION 3.6 Headings. The headings of the Articles and the sections in this Supplemental Indenture are for convenience of reference only and shall not be deemed to alter or affect the meaning or interpretation of any provisions hereof.

SECTION 3.7 The Trustee. The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity, sufficiency or adequacy of this Supplemental Indenture or for or in respect of the statements or recitals contained herein, all of which recitals are made solely by the Company, and the Trustee assumes no responsibility for their correctness.

Section 3.8 FATCA. The Company hereby confirms to the Trustee that this Supplemental Indenture has not resulted in a material modification of the Notes for Foreign Accounting Tax Compliance Act (“FATCA”) purposes. The Trustee shall assume that no material modification for FATCA purposes has occurred regarding the Securities, unless the Trustee receives written notice of such modification from the Company.

[SIGNATURE PAGES FOLLOW]

The parties have executed this Supplemental Indenture as of the date first above written.

APACHE CORPORATION

By: /s/ Ben C. Rodgers

Name: Ben C. Rodgers

Title: Vice President and Treasurer

[Signature Page – Supplemental Indenture (May 19, 2011 Indenture)]

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Trustee

By: /s/ Patrick T. Giordano
Name: Patrick T. Giordano
Title: Vice President

[Signature Page – Supplemental Indenture (May 19, 2011 Indenture)]

Exhibit 4.25

DESCRIPTION OF
7.75% NOTES DUE DECEMBER 15, 2029

The following summary of our 7.75% Notes due December 15, 2029 (the "Notes") is based on the Indenture between Apache Corporation (as successor to Apache Finance Canada Corporation and as guarantor) (the "Company") and The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, N.A., formerly The Chase Manhattan Bank), as trustee, dated as of November 23, 1999 (as amended and supplemented, the "Indenture").

This summary is not complete and is subject to, and qualified in its entirety by reference to, the Indenture. For a complete description of the terms of the Notes, refer to each of the Indenture filed as an exhibit to the Company's Amendment No. 1 to Registration Statement on Form S-3, filed November 12, 1999; the Supplemental Indenture, dated as of August 14, 2017 (the "Supplemental Indenture"), filed as an exhibit to the Company's Form 10-Q for the quarterly period ended September 30, 2017; and the Second Supplemental Indenture, dated as of December 16, 2019, filed as an exhibit to the Company's Form 10-K for the fiscal year ended December 31, 2019.

Throughout this summary, references to "filed" refer to filings with the United States Securities and Exchange Commission; references to "debt securities" are to notes, bonds, debentures, and other evidences of indebtedness we may issue under the Indenture and include the Notes; and references to the "Company," "we," "our," and "us" refer to Apache Corporation.

Obligor

The Company has been primary obligor on the Notes since August 14, 2017. Our subsidiary, Apache Finance Canada Corporation ("AFCC"), issued $300,000,000 aggregate principal amount of the Notes on December 13, 1999 under the Indenture and a Prospectus, dated November 12, 1999, as supplemented by a Prospectus Supplement, dated December 8, 1999 and filed December 9, 1999 (the "Prospectus Supplement" and together with the Prospectus, the "Prospectus"). Pursuant to the Indenture, the Company irrevocably and unconditionally guaranteed the Notes as to principal, premium, if any, interest and additional amounts, if any (the "Guarantee"). As permitted by the Indenture and pursuant to the Supplemental Indenture, the Company assumed the obligations of AFCC as obligor under the Notes and the Indenture; succeeded to, and was substituted for, and may exercise every right and power of, AFCC under the Notes and the Indenture; and AFCC was released from its liability as obligor upon the Notes and under the Indenture.

The Company is the primary obligor on the Notes; however, the Indenture permits assignment of the Notes to subsidiaries of the Company. Accordingly, this description summarizes provisions of the Indenture applicable to an obligor on the Notes, including the Company or a subsidiary of the Company, as primary obligor, and the Company, as guarantor.

Principal, Maturity, and Interest

The aggregate outstanding principal amount of the Notes is $300,000,000. The Notes are senior unsecured obligations of the Company. The Notes were issued in book-entry form as a global note registered in the name of Cede & Co. as nominee of The Depository Trust Company. See "Global and

Book-Entry Securities" below. The Notes were issued in denominations of $1,000 or integral multiples of $1,000.

We may issue and sell additional principal amounts of the Notes in the future without the consent of the holders of the Notes. Any additional Notes, together with the outstanding Notes, will constitute a single series of Notes under the Indenture.

The Notes mature on December 15, 2029.

Interest accrues on the Notes at the rate of 7.75% per year and is computed on the basis of a 360-day year comprised of twelve 30-day months. Interest is payable semi-annually in arrears on June 15 and December 15 of each year. We make each interest payment to the person in whose name the Notes are registered at the close of business on the immediately preceding June 1 or December 1, as the case may be, whether or not that date is a business day.

If any interest payment date, maturity date, or redemption date falls on a day that is not a business day, we make payment on the next business day and, unless we default on the payment, no interest accrues for the period from and after the interest payment date, maturity date, or redemption date.

If a change in control, as defined in the Indenture, occurs, each holder of Notes may elect to require us to repurchase the holder's Notes. If a holder makes this election, we must purchase the holder's Notes for their principal amount plus accrued interest to the purchase date. See "We are Obligated to Purchase Notes on a Change in Control" below.

With certain exceptions and pursuant to certain requirements set forth in the Indenture, the Company may discharge its obligations under the Indenture with respect to the Notes as described under "Discharge, Defeasance and Covenant Defeasance" below.

The Notes trade on the New York Stock Exchange under the symbol "APA/29."

Optional Redemption

If certain Canadian tax law changes require the payment of additional amounts, we may redeem all, but not less than all, of the Notes at the principal amount of the Notes to be redeemed, plus accrued interest. See "Redemption for Taxation Reasons" below.

We will mail any notice of a redemption between 30 and 60 days before the redemption date to holders of Notes to be redeemed.

Unless we default in payment of the redemption price, on and after the redemption date, interest will cease to accrue on the Notes.

Except as noted above, the Notes are not redeemable before maturity and will not be subject to any sinking fund.

Ranking

The Notes and the Guarantee are unsecured obligations of the Company and rank equally with all other unsecured and unsubordinated indebtedness of the Company. If Notes are assigned to a subsidiary of the Company as permitted by the Indenture, the Notes will be unsecured obligations of such subsidiary and rank equally with all other unsecured and unsubordinated indebtedness of such subsidiary.

Dividend and other distributions to us from our various subsidiaries may be subject to certain statutory, contractual, and other restrictions (including, without limitation, exchange controls that may be applicable to foreign subsidiaries). The rights of our creditors to participate in the assets of any subsidiary upon that subsidiary's liquidation or recapitalization will be subject to the prior claims of the subsidiary's creditors, except to the extent that we may be a creditor with recognized claims against the subsidiary. The claims of holders under the Guarantee will be effectively subordinated to the claims of creditors of our subsidiaries other than, in the case of the Notes, the subsidiary primarily obligated thereon.

The Indenture does not restrict the amount of indebtedness that we or our subsidiaries may incur. Other than as described below under "The Indenture Limits Our Ability to Incur Liens," "The Indenture Limits Our Ability to Engage in Sale/Leaseback Transactions" and "We are Obligated to Purchase Notes on a Change in Control," the Indenture does not limit our ability to incur indebtedness or afford holders of debt securities protection if our credit quality declines or if we are involved in a takeover, recapitalization, restructuring, or highly leveraged or similar transaction.

The Indenture does not limit the amount of debt securities we may issue under the Indenture and provides that additional debt securities of any series may be issued up to the aggregate principal amount that we authorize from time to time.

Guarantee

With respect to Notes for which any of our subsidiaries becomes primary obligor, we irrevocably and unconditionally guarantee to each holder of Notes the due and punctual payment of the principal of, and any premium and interest on, the Notes, when and as it becomes due and payable, whether at maturity, upon acceleration, by call for redemption, repayment or otherwise in accordance with the terms of the Notes and of the Indenture. We (i) agree that, if an event of default occurs under the Notes, our obligations under the Guarantee will be as if we had issued the Notes, and will be enforceable irrespective of any invalidity, irregularity, or unenforceability of the Notes or the Indenture or any supplement thereto and (ii) waive our right to require the trustee or the holders to pursue or exhaust their legal or equitable remedies against our subsidiary before exercising their rights under the Guarantee.

The Indenture Limits Our Ability to Incur Liens

Nothing in the Indenture or the Notes in any way limits the amount of indebtedness or securities which we or our subsidiaries, as defined in the Indenture, may incur or issue. The Indenture provides that none of us or any of our subsidiaries may issue, assume or guarantee any notes, bonds, debentures or other similar evidences of indebtedness for money borrowed secured by a mortgage, lien, pledge, security interest or other encumbrance — defined in the Indenture as "liens" — upon any of its property unless we provide that any and all debt securities then outstanding shall be secured by a lien equally and ratably with any and all other obligations secured by the lien. The restrictions on liens will not, however, apply to:

- liens existing on the date of the Indenture or provided for under the terms of agreements existing on the date of the Indenture;
- liens securing all or part of the cost of exploring, producing, gathering, processing, marketing, drilling or developing any of our or our subsidiaries' properties, or securing indebtedness incurred to provide funds therefor or indebtedness incurred to finance all or part of the cost of acquiring,

constructing, altering, improving or repairing those properties, or securing indebtedness incurred to provide funds therefor;

- liens securing only indebtedness owed by one of our subsidiaries to us or to one or more of our subsidiaries;
- liens on the property of any corporation or other entity existing at the time it becomes our subsidiary;
- liens on any property to secure indebtedness incurred in connection with the construction, installation or financing of pollution control or abatement facilities or other forms of industrial revenue bond financing or indebtedness issued or guaranteed by the United States or any state or any department, agency or instrumentality of either or indebtedness issued to or guaranteed for the benefit of a foreign government or any state or any department, agency or instrumentality of either or an international finance agency or any division or department thereof, including the World Bank, the International Finance Corp. and the Multilateral Investment Guarantee Agency;
- any extension, renewal or replacement or successive extensions, renewals or replacements of any lien referred to in the foregoing clauses that existed on the date of the Indenture;
- certain other liens incurred in the ordinary course of business; or
- liens which secure "Limited Recourse Indebtedness," as defined in the Indenture.

In addition, the following types of transactions, among others, shall not be deemed to create indebtedness secured by liens:

- the sale or other transfer of crude oil, natural gas or other petroleum hydrocarbons in place for a period of time until, or in an amount that, the transferee will receive as a result of the transfer a specified amount of money or of crude oil, natural gas or other petroleum hydrocarbons;
- the sale or other transfer of any other interest in property of the character commonly referred to as a production payment, overriding royalty, forward sale or similar interest; and
- liens required by any contract or statute in order to permit us or one of our subsidiaries to perform any contract or subcontract made by it with or at the request of the U.S. government or any foreign government or international finance agency, any state or any department thereof, or any agency or instrumentality of either, or to secure partial, progress, advance or other payments to us or one of our subsidiaries by any of these entities pursuant to the provisions of any contract or statute.

The Indenture Limits Our Ability to Engage in Sale/Leaseback Transactions

Under the Indenture, neither we nor any of our subsidiaries may enter into any arrangement with any person, other than us or one of our subsidiaries, to lease any property to us or a subsidiary of ours for more than three years. For the restriction to apply, we or one of our subsidiaries must sell or plan to sell the property to the person leasing it to us or our subsidiary or to another person to which funds have been or are to be advanced on the security of the leased property. The limitation does not apply where:

- either we or our subsidiaries would be entitled to create debt secured by a lien on the property to be leased in a principal amount equal to or exceeding the value of that sale/leaseback transaction;

- since the date of the Indenture and within a period commencing six months before the consummation of that arrangement and ending six months after the consummation of the arrangement, we or our subsidiaries have expended or will expend for any property — including amounts expended for the acquisition, exploration, drilling or development of the property, and for additions, alterations, improvements and repairs to the property — an amount equal to all or a portion of the net proceeds of that arrangement and we or our subsidiaries designate that amount as a credit against that arrangement, with any amount not being so designated to be applied as set forth in the next item; or

- during or immediately after the expiration of the 12 months after the effective date of that transaction, we or any of our other subsidiaries apply to the voluntary defeasance or retirement of the debt securities and or other senior indebtedness, as defined in the Indenture, an amount equal to the greater of the net proceeds of the sale or transfer of the property leased in that transaction or the fair value of the property at the time of entering into the transaction, in either case adjusted to reflect the remaining term of the lease and any amount we utilize as set forth in the prior item. The amount will be reduced by the principal amount of senior indebtedness we voluntarily retire within that 12-month period.

Exempted Indebtedness

Notwithstanding the limitations on liens and sale/leaseback transactions described in this summary, we may create liens or enter into sale/leaseback transactions not otherwise permitted if immediately after the transaction, the sum of outstanding indebtedness for borrowed money incurred after the date of the Indenture and secured by these liens plus the attributable debt in respect of any sale/leaseback transaction entered into after the date of the Indenture does not exceed 10 percent of our consolidated net worth.

The Indenture Includes Events of Default

Any one of the following events will constitute an “event of default” under the Indenture:

- if we fail to pay any interest on the Notes when due, and the failure continues for 30 days;

- if we fail to pay principal of or any premium on the Notes when due and payable, either at maturity or otherwise;

- if we fail to perform or breach any of the other covenants or warranties in the Indenture or the Notes — other than a covenant or warranty included in the Indenture solely for the benefit of a series of securities other than the Notes — and that breach or failure continues for 60 days after written notice as provided in the Indenture;

- if any of our or any of our subsidiaries' indebtedness, as defined in the Indenture, in excess of an aggregate of $25,000,000 in principal amount is accelerated under any event of default as defined in any mortgage, indenture or instrument and the acceleration has not been rescinded or annulled within 30 days after written notice as provided in the Indenture specifying the event of default and requiring us to cause that acceleration to be rescinded or annulled;

- if we or any of our subsidiaries fail to pay, bond or otherwise discharge within 60 days of entry, a judgment, court order or uninsured monetary damage award against us or them in excess of an aggregate of $25,000,000 which is not stayed on appeal or otherwise being appropriately contested in good faith;

- certain events of bankruptcy, insolvency or reorganization involving us or any of our subsidiaries; and

- any other event of default provided in or pursuant to the Indenture with respect to the Notes.

If an event of default with respect to the Notes, other than an event of default described in the second to last and third to last items above, occurs and is continuing, either the trustee or the holders of at least 25% in aggregate principal amount of the outstanding Notes may declare the principal amount of the Notes to be due and payable immediately. At any time after a declaration of acceleration has been made, but before a judgment or decree for payment of money has been obtained by the trustee, and subject to applicable law and certain other provisions of the Indenture, the holders of a majority in aggregate principal amount of the Notes may, under certain circumstances, rescind and annul the acceleration. If an event of default described in the second to last and third to last items above occurs, the principal amount and accrued interest — or a lesser amount as provided for in the Notes — will become immediately due and payable without any declaration or other act by the trustee or any holder.

Within 90 days after the occurrence of any event of default under the Indenture with respect to the Notes, the trustee must transmit notice of the event of default to the holders of the Notes unless the event of default has been cured or waived. However, except in the case of a payment default, the trustee may withhold the notice if and so long as the board of directors, the executive committee or a trust committee of directors or responsible officers of the trustee has in good faith determined that the withholding of the notice is in the interest of the holders of the Notes.

If an event of default occurs and is continuing with respect to the Notes, the trustee may in its discretion proceed to protect and enforce its rights and the rights of the holders of the Notes by all appropriate judicial proceedings.

Subject to the duty of the trustee during any default to act with the required standard of care, the trustee is under no obligation to exercise any of its rights or powers under the Indenture at the request or direction of any of the holders of the Notes, unless the holders offer the trustee reasonable indemnity. Subject to indemnifying the trustee, and subject to applicable law and certain other provisions of the Indenture, the holders of a majority in aggregate principal amount of the outstanding Notes may direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the Notes.

We Are Obligated to Purchase Notes on a Change in Control

If a change in control, as defined in the Indenture, occurs, we must mail within 15 days a written notice regarding the change in control to the trustee and to every holder of the Notes. The notice must also be published at least once in an authorized newspaper, as defined in the Indenture, and must state:

- the event causing the change in control and the date of the event;
- the date by which notice of the change in control is required by the Indenture to be given;
- the date, 35 business days after the occurrence of the change in control, by which we must purchase the Notes we are obligated to purchase pursuant to the selling holder's exercise of rights on change in control;
- the price we must pay for the Notes we are obligated to purchase;
- the name and address of the trustee;
- the procedure for surrendering Notes to the trustee or other designated office or agent for payment;
- a statement of our obligation to make prompt payment on proper surrender of the Notes;
- the procedure for holders' exercise of rights of sale of the Notes; and
- the procedures by which a holder may withdraw the notice after it is given.

After we give this notice we are obligated, at the election of each holder, to purchase those Notes.

Under the Indenture, a change in control is deemed to have occurred when:

- any event requiring the filing of any report under or in response to Schedule 13D or 14D-1 pursuant to the Securities Exchange Act of 1934, as amended, disclosing beneficial ownership of either 50% or more of our common stock then outstanding or 50% or more of the voting power of our voting stock then outstanding;
- the completion of any sale, transfer, lease, or conveyance of our properties and assets substantially as an entirety to any person or persons that is not our subsidiary, as those terms are defined in the Indenture; or
- the completion of a consolidation or merger of us with or into any other person or entity in a transaction in which either we are not the sole surviving corporation or our common stock existing before the transaction is converted into cash, securities or other property and those exchanging our common stock do not, as a result of the transaction, receive either 75% or more of the survivor's common stock or 75% or more of the voting power of the survivor's voting stock.

We will not purchase any Notes if there has occurred and is continuing an event of default under the Indenture, other than default in payment of the purchase price payable for the Notes upon change in control. In connection with any purchase of Notes after a change in control, we will comply with all federal and state securities laws, including, specifically, Rule 13e-4, if applicable, of the Securities Exchange Act of 1934, and any related Schedule 13E-4 required to be submitted under that rule.

Discharge, Defeasance and Covenant Defeasance

We may discharge certain obligations to holders of any Notes that have not already been delivered to the trustee for cancellation and that:

- have become due and payable;
- will become due and payable within one year; or
- are scheduled for redemption within one year.

To discharge the obligations with respect to the Notes, we must deposit with the trustee, in trust, an amount of funds in U.S. dollars sufficient to pay the entire amount of principal of, and any premium or interest on, the Notes to the date of the deposit if the Notes have become due and payable or to the maturity of the Notes, as the case may be.

The Indenture provides that, unless the provisions of section 402 of the Indenture are made inapplicable to the Notes, we may elect either

- to defease and be discharged from any and all obligations with respect to the Notes, which is referred to as "legal defeasance"; or
- to be released from the obligations with respect to the Notes under the covenants described in "The Indenture Limits Our Ability to Incur Liens" and "The Indenture Limits Our Ability to Engage in Sale/Leaseback Transactions" above or, if provided pursuant to section 301 of the Indenture, the obligations with respect to any other covenant, which is referred to as "covenant defeasance."

In the case of legal defeasance, we will still retain some obligations in respect of the Notes, including the obligations:

- to pay additional amounts, if any, upon the occurrence of certain events of taxation, assessment or governmental charge with respect to payments on the Notes;
- to register the transfer or exchange of the Notes;
- to replace temporary or mutilated, destroyed, lost or stolen Notes; and
- to maintain an office or agency with respect to the Notes and to hold moneys for payment in trust.

After a covenant defeasance, any omission to comply with the obligations or covenants that have been defeased shall not constitute a default or an event of default with respect to the Notes.

To elect either legal defeasance or covenant defeasance we must deposit with the trustee, in trust, an amount, in U.S. dollars at the stated maturity, or in government obligations, as defined below, or both, applicable to the Notes which through the scheduled payment of principal and interest in accordance with their terms will provide money in an amount sufficient to pay the principal of and any premium and interest on the Notes on their scheduled due date.

In addition, we can only elect legal defeasance or covenant defeasance if, among other things:

- the applicable defeasance does not result in a breach or violation of, or constitute a default under, the Indenture or any other material agreement or instrument to which we are a party or by which we are bound;
- no default or event of default with respect to the Notes shall have occurred and be continuing on the date of the establishment of the trust; and
- we have delivered to the trustee an opinion of counsel to the effect that the holders of the Notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if the defeasance had not occurred, and the opinion of counsel, in the case of legal defeasance, must refer to and be based upon a letter ruling of the Internal Revenue Service received by us, a Revenue Ruling published by the Internal Revenue Service or a change in applicable U.S. federal income tax law occurring after the date of the Indenture.

The Indenture defines government obligations as securities which are not callable or redeemable at the option of the issuer or issuers and are:

- direct obligations of the United States, for the payment of which its full faith and credit is pledged; or
- obligations of a person or entity controlled or supervised by and acting as an agency or instrumentality of the United States, the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States.

Government obligations also include a depository receipt issued by a bank or trust company as custodian with respect to any government obligation described above or a specific payment of interest on or principal of or any other amount with respect to any government obligation held by that custodian for the account of the holder of the depository receipt, as long as, except as required by law, that custodian is not authorized to make any deduction from the amount payable to the holder of the depository receipt from any amount received by the custodian with respect to the government obligation or the specific payment of interest on or principal of or any other amount with respect to the government obligation evidenced by the depository receipt.

Under the Indenture, we are required to furnish to the trustee annually a statement as to our performance of certain of our obligations under the Indenture and as to any default in performance. We are also required to deliver to the trustee, within five days after occurrence thereof, written notice of any event which after notice or lapse of time or both would constitute an event of default.

Modification and Waiver

We and the trustee may modify the Indenture or waive certain provisions of the Indenture with the consent of the holders of not less than a majority in aggregate principal amount of the debt securities of each series affected by the modification or waiver. However, provisions of the Indenture may not be waived or modified without the consent of the holder of each debt security affected thereby if the modification or waiver would:

- change the stated maturity of the principal of, or premium, if any, on, or any installment of principal, if any, of or interest on, or any additional amounts payable with respect to, any debt security;
- reduce the principal amount of, or premium or interest on, or any additional amounts payable with respect to, any debt security;
- change the coin or currency in which any debt security or any premium or any interest on the debt security or any additional amounts payable with respect to the debt security is payable;
- impair the right to institute suit for the enforcement of any payment on or after the stated maturity of any debt securities or, in the case of redemption, exchange or conversion, on or after the redemption, exchange or conversion date or, in the case of repayment at the option of any holder, on or after the date for repayment or in the case of a change in control, after the change in control purchase date;
- reduce the percentage and principal amount of the outstanding debt securities, the consent of whose holders is required in order to take certain actions;
- change any of our obligations to maintain an office or agency in the places and for the purposes required by the Indenture;
- modify or affect in any manner adverse to the holders of the debt securities the terms and conditions of our obligations regarding the due and punctual payment of principal or, any premium on or all interest on the debt securities; or
- modify any of the above provisions.

The holders of at least a majority in aggregate principal amount of debt securities of any series may, on behalf of the holders of all debt securities of that series, waive our compliance with certain restrictive provisions of the Indenture. The holders of not less than a majority in aggregate principal amount of debt securities of any series may, on behalf of all holders of debt securities of that series, waive any past default and its consequences under the Indenture with respect to the debt securities of that series, except:

- a payment default with respect to debt securities of that series; or
- a default of a covenant or provision of the Indenture that cannot be modified or amended without the consent of the holder of each debt security of any series.

Assignment to a Subsidiary

Under the Indenture, we may assign our obligations under the Notes to any of our subsidiaries and the new subsidiary will be treated, for all purposes, as our successor with respect to the Notes, provided that the conditions described under “Consolidation, Merger and Sale of Assets” below are satisfied.

Consolidation, Merger and Sale of Assets

We may, without the consent of the holders of the Notes, consolidate or merge with or into, or convey, transfer or lease our properties and assets substantially as an entirety to, any person that is a corporation, limited liability company, partnership or trust organized and validly existing under the laws of any domestic jurisdiction. We may also permit any of those persons to consolidate with or merge into us or convey, transfer or lease its properties and assets substantially as an entirety to us, as long as any successor person assumes our obligations on the Notes and after giving effect to the transaction no event of default under the Indenture, and no event which, after notice or lapse of time or both, would become an event of default, will have occurred and be continuing, and as long as some other conditions are met.

Also, the successor person to us must expressly agree in a supplemental indenture:

- that all payments on the Notes in respect of the principal of and any premium and interest shall be made without withholding or deduction for any present or future taxes, duties, assessments or governmental charges of any nature imposed or levied by or on behalf of the person's jurisdiction of organization or political subdivision or taxing authority, unless the taxes are required by the jurisdiction, subdivision or authority to be withheld or deducted, in which case the person will pay additional amounts so that after deducting the taxes the holder of Notes receives the same amount that the holder would have received if no withholding or deduction was required; and

- to indemnify immediately the holder of Notes against any tax, assessment or governmental charge imposed on the holder or required to be withheld or deducted from any payment to the holder as a consequence of the transaction; and

- any other tax costs or other tax expenses of the transaction.

If we or the successor person deliver an opinion of an independent counsel or a tax consultant of recognized standing that the holder will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the transaction, a holder will have this right to indemnification only if and when gain for U.S. federal income tax purposes is actually recognized by the holder.

Assumption of Obligations under the Notes by the Company

If any of our subsidiaries becomes obligated on the Notes, we may, at our option, assume obligations under the Notes if:

- we expressly assume the obligations in an assumption agreement or supplemental indenture that is executed and delivered to the trustee in a form that is acceptable to the trustee;

- no event of default and no event that after a notice or the lapse of time or both would become an event of default occurs and is continuing after giving effect to our assuming the obligations; and

- we expressly agree in an assumption agreement or supplemental indenture to indemnify the holders of the debt securities against any tax assessment or government charge imposed on a holder or required to be withheld or deducted from any payment made to a holder, including any charge or withholding required on account of this indemnification, and any costs or expenses incurred by a holder on account of our assuming the obligations. If we deliver to the trustee an opinion of an independent tax counsel or consultant of recognized standing stating that the holders will not recognize income, gain or loss, for United States federal income tax purposes, as a result of assuming these obligations, then a holder will have the above indemnification rights only if and when gain for United States federal income tax purposes is actually recognized by a holder.

If we assume a subsidiary's obligations, as described above, we will be substituted for the subsidiary for all purposes regarding the debt securities so assumed.

Payment of Additional Amounts

We must make all payments of, or in respect of, principal of and any premium and interest on the Notes without withholding or deduction for any taxes imposed or levied by or on behalf of any Canadian taxing authorities. If the taxing authorities nonetheless require us to withhold taxes, we must pay as additional interest an amount that will result, after deducting the taxes, in the payment to the holder of the Notes of the amount that would have been paid if no withholding was required. We are not required to pay this additional interest for or on account of:

- any tax that would not have been imposed but for the fact that the holder
  - was a resident, domiciled or national of, or engaged in business or maintained a permanent establishment or was physically present in Canada or otherwise had some connection with Canada other than merely owning the Notes;
  - presented, if presentation is required, the Notes for payment in Canada, unless the Notes could not have been presented for payment elsewhere;
  - presented, if presentation is required, the Notes more than 30 days after the date on which the payment relating to the Notes first became due and payable or provided for, whichever is later, except to the extent that the holder would have been entitled to the additional interest if it had presented the Notes for payment on any day within this 30 day period;
  - is not dealing with us, directly or indirectly, on an arm's-length basis; or
  - entered into or participated in a scheme to avoid Canadian withholding tax that we neither were a party to nor participated in;
- any estate, inheritance, gift, sale, transfer, personal property or similar tax, assessment or other governmental charge;
- any tax that is payable other than by withholding or deduction from payments of, or in respect of, principal of or any premium or interest on the Notes;
- any tax that is imposed or withheld because the holder or the beneficial owner of Notes failed, upon our request to provide information concerning the nationality, residence or identity of the holder or the beneficial owner, or to make any declaration or other similar claim or satisfy any information or reporting requirement that is required or imposed by Canadian federal income tax laws as a precondition to exemption from all or part of the tax, assessment or other governmental charge; or

- any combination of four items listed above.

We also do not have to pay additional interest with respect to any payment of the principal of or any premium or interest on the Notes to any holder that is a fiduciary or partnership or other than the sole beneficial owner of the payment to the extent the payment would be required by the laws of Canada to be included in the income for tax purposes of a beneficiary or settlor with respect to a fiduciary or a member of the partnership or a beneficial owner who would not have been entitled to the additional interest if it held the Notes.

Any amounts paid by us, as guarantor, under the Indenture must be paid without withholding or deduction for any taxes imposed or levied by or on behalf of any U.S. taxing authority. If a U.S. taxing authority nonetheless requires us to withhold taxes, we must pay an additional amount so that the net amount paid to the holder, after deducting the taxes, is not less than the amount then due and payable on the Notes. We are not required to pay this additional amount to any holder of Notes who is:

- subject to U.S. tax by reason of the holder being connected with the U.S. otherwise than by holding or owning the Notes; or

- not dealing at arm's length with us.

Where this summary mentions, in any context, the payment of principal of, or any premium or interest on, or in respect of, the Notes or the net proceeds received on the sale or exchange of the Notes, this amount shall be deemed to include the payment of additional amounts provided for in the Indenture to the extent that the additional amounts are, were or would be payable under the Indenture.

Redemption for Taxation Reasons

If Canadian taxing authorities change or amend their laws, regulations or published tax rulings or the official administration, application or interpretation of their laws, regulations or published tax rulings either generally or in relation to the Notes, and we determine that:

- we will be required to pay any additional amounts under the Indenture or the terms of the Notes

  - in respect of interest on the next succeeding interest payment date; or

  - in respect of the principal of any discounted Notes on the date of the determination, assuming that a payment in respect of principal were required to be made on this date under the terms of the Notes; and

- we cannot avoid paying the additional amount by taking reasonable measures available to us,

we may, at our option, redeem all, but not less than all, of the Notes in respect of which any additional amounts would be so payable at any time, upon not less than 30 nor more than 60 days' written notice as provided in the Indenture. The redemption price will be equal to 100 percent of the principal amount of the Notes plus accrued interest to the date of redemption, except that any Notes that are discounted Notes may be redeemed at the redemption price specified in their terms, as long as:

- no notice of redemption may be given earlier than 60 days before the earliest date on which we would be obligated to pay any additional amounts if a payment was due in respect of the Notes; and

- at the time any redemption notice is given, the obligation to pay any additional amounts must remain in effect.

If

- we have consolidated with or merged into, or conveyed or transferred or leased our properties and assets as an entirety or substantially as an entirety to, any person that is organized under the laws of any jurisdiction other than the United States or Canada;

- as the result of any change in or any amendment to the laws, regulations or published tax rulings of the jurisdiction under which our successor is organized or of its political subdivisions or taxing authorities affecting taxation, or any change in the official administration, application or interpretation of its laws, regulations or published tax rulings either generally or in relation to the Notes, our successor must pay any additional amounts under the Indenture or the terms of the Notes

  - in respect of interest on the Notes on the next succeeding interest payment date; or

  - in respect of the principal of any discounted Notes on the date of the determination, assuming the principal must be paid on that date under the terms of the Notes; and

- we or our successor taking reasonable measures cannot avoid this obligation,

we or our successor may redeem all, but not less than all, of the Notes in respect of which any additional amounts would be so payable at any time, upon not less than 30 nor more than 60 days' written notice as provided in the Indenture, at a redemption price equal to 100 percent of the principal amount of the Notes plus accrued interest to the date fixed for redemption, unless otherwise specified in the Prospectus Supplement, except that any Notes that are discounted Notes may be redeemed at the price specified in the Notes' terms. No notice of redemption may be given earlier than 60 days before the earliest date on which a successor must pay any additional amounts if a payment was due in respect of the Notes. Also, at the time any redemption notice is given, the successor's obligation to pay any additional amounts must remain in effect.

Global and Book-Entry Securities

The Notes were issued in book-entry form as a global certificate deposited with The Depository Trust Company (DTC) and registered in the name of Cede & Co. as nominee of DTC. Unless and until it is exchanged in whole or in part for the individual Notes it represents, a global security may not be transferred except as a whole:

- by the applicable depositary to a nominee of the depositary,
- by any nominee to the depositary itself or another nominee, or
- by the depositary or any nominee to a successor depositary or any nominee of the successor.

The following provisions generally apply to depositary arrangements.

The depositary for a global security in registered form or its nominee will credit, on its book-entry registration and transfer system, the respective principal amounts of the individual debt securities represented by that global security to the accounts of participants that have accounts with the depositary. Those accounts will be designated by the dealers, underwriters, or agents with respect to the underlying debt securities or by us if those debt securities are offered and sold directly by us. Ownership of beneficial interests in a global security will be limited to participants or persons that may hold interests through participants. For interests of participants, ownership of beneficial interests in the global security will be shown on records maintained by the applicable depositary or its nominee. For interests of persons other than participants, that ownership information will be shown on the records of participants. Transfer of that ownership will be effected only through those records. The laws of some states require that certain purchasers of securities take physical delivery of securities in definitive form. These limits and laws may impair our ability to transfer beneficial interests in a global security.

As long as the depositary for a global security, or its nominee, is the registered owner of that global security, the depositary or nominee will be considered the sole owner or holder of the debt securities represented by the global security for all purposes under the Indenture. Except as described below, owners of beneficial interests in a global security:

- will not be entitled to have any of the underlying debt securities registered in their names;
- will not receive or be entitled to receive physical delivery of any of the underlying debt securities in definitive form; and
- will not be considered the owners or holders under the Indenture relating to those debt securities.

Payments of principal of, and any premium and interest on, individual debt securities represented by a global security registered in the name of a depositary or its nominee will be made to the depositary or its nominee as the registered owner of the global security representing those debt securities.

Neither we, the trustee, any paying agent nor the registrar for the debt securities will be responsible for any aspect of the records relating to or payments made by the depositary or any participants on account of beneficial interests of the global security.

We expect that the depositary or its nominee, upon receipt of any payment of principal, premium, or interest relating to a permanent global security representing the debt securities, immediately will credit participants' accounts with the payments. Those payments will be credited in amounts proportional to the respective beneficial interests of the participants in the principal amount of the global security as shown on the records of the depositary or its nominee. We also expect that payments by participants to owners of beneficial interests in the global security held through those participants will be governed by standing instructions and customary practices. Those payments will be the sole responsibility of those participants.

If the depositary for the Notes is at any time unwilling, unable or ineligible to continue as depositary and we do not appoint a successor depositary within 90 days, we will issue individual Notes in exchange for the global security or securities representing the Notes. In addition, we may at any time in our sole discretion determine not to have any Notes represented by one or more global securities. In that event, we will issue individual Notes in exchange for the global security or securities. Further, if we specify, an owner of a beneficial interest in a global security may, on terms acceptable to us, the trustee, and the applicable depositary, receive individual Notes in exchange for those beneficial interests. In that instance, the owner of the beneficial interest will be entitled to physical delivery of individual Notes equal in principal amount to the beneficial interest and to have the Notes registered in its name. Those individual Notes will be issued in denominations, unless we specify otherwise, of $1,000 or integral multiples of $1,000.

No person that acquires a beneficial interest in Notes issued in book-entry form will be entitled to receive a certificate representing those securities, except as set forth in the Prospectus. Unless and until definitive securities are issued under the limited circumstances described in the Prospectus, all references to actions by beneficial owners of securities issued in book-entry form refer to actions taken by DTC upon instructions from its participants, and all references to payments and notices to beneficial owners refer to payments and notices to DTC or Cede & Co., as the registered holder of the Notes.

None of Apache, the trustees, any registrar and transfer agent or any depositary, or any agent of any of them, will have any responsibility or liability for any aspect of DTC's or any participant's records relating to, or for payments made on account of, beneficial interests in a book-entry security.

The Prospectus contains additional information about book-entry securities and depository arrangements for global securities. The Prospectus also summarizes provisions of the Indenture concerning exchange, registration, and transfer of debt securities that are not global securities.

The Trustee

The Bank of New York Mellon Trust Company, N.A. (as successor to JPMorgan Chase Bank, N.A., formerly The Chase Manhattan Bank), is trustee under the Indenture. This institution is trustee under certain other indentures pursuant to which we have issued other debt securities.

DESCRIPTION OF APACHE CORPORATION'S EQUITY SECURITIES

Apache Corporation (the "**Company**") has a single class of equity securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"): Common Stock, par value $0.625 per share ("**Common Stock**").

*The following is a summary of the rights of the holders of Common Stock. This summary should be read in conjunction with, and is qualified in its entirety by, the related provisions of the Company's Restated Certificate of Incorporation, which is incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed on September 20, 2013, SEC File No. 001-4300, as amended by the Certificate of Amendment thereto, which is incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed on May 20, 2015, SEC File No. 001-4300 (as amended, the "**Certificate**"); the Company's Amended and Restated Bylaws (the "**Bylaws**"), which is incorporated by reference to Exhibit 3.3 to the Company's Quarterly Report on Form 10-Q filed on October 31, 2019, SEC File No. 001-4300; and applicable Delaware law, including the Delaware General Corporation Law (the "**DGCL**"). Capitalized terms used but not otherwise defined herein have the meanings set forth in the Annual Report on Form 10-K to which this exhibit is attached.*

Authorized Capital Stock

The Company's authorized capital stock consists of: (i) 860,000,000 shares of Common Stock; and (ii) 10,000,000 shares of preferred stock, no par value ("**Preferred Stock**"). As of December 31, 2019, the Company had 376,062,670 shares of Common Stock and no shares of Preferred Stock issued and outstanding. The number of shares of Common Stock issued and outstanding varies from time to time.

Common Stock

Voting

Each share of Common Stock entitles the holder thereof to one vote on all matters to be voted on by the Company's stockholders. Our Common Stock does not have cumulative voting rights. As a result, subject to the voting rights of any future holders of Preferred Stock, persons who hold more than 50% of the outstanding shares of Common Stock entitled to elect members of our board of directors (the "**Board**") can elect all of the directors who are up for election in a particular year.

Dividends

If the Board declares a dividend, holders of Common Stock will receive payments from the Company's funds that are legally available to pay dividends. This dividend right, however, is subject to any preferential dividend rights we may grant to future holders of Preferred Stock.

Liquidation Distributions

If we dissolve, the holders of Common Stock will be entitled to share ratably in all the assets that remain after we pay our liabilities and any amounts we may owe to future holders of Preferred Stock.

Other Rights and Restrictions

Holders of Common Stock do not have preemptive rights, and they have no right to convert their Common Stock into any other securities. Our Common Stock is not subject to redemption by the Company. Our Certificate and Bylaws do not restrict the ability of holders of Common Stock to transfer their shares of Common Stock. Delaware law provides that, if we make a distribution to our stockholders, other than a distribution of our capital stock, either when we are insolvent or when we would be rendered insolvent, then our stockholders would be required to pay back to us the amount of the distribution we made to them, or the portion of the distribution that causes us to become insolvent as a result of such distribution, as the case may be. There are no sinking fund provisions applicable to the Common Stock.

Fully Paid and Nonassessable

All of the outstanding shares of Common Stock are fully paid and nonassessable.

Listing

The Common Stock is listed on each of the New York Stock Exchange, the Nasdaq Global Select Market, and the Chicago Stock Exchange under the trading symbol "APA."

Transfer Agent and Registrar

The transfer agent and registrar for our Common Stock is Wells Fargo Bank, N.A.

Anti-Takeover Provisions in the Certificate, Bylaws, and Applicable Law

Provisions of the Certificate and Bylaws may delay, defer, prevent, or otherwise discourage transactions involving an actual or potential change in control of the Company or change in its management, including transactions in which stockholders might otherwise receive a premium for their shares or that stockholders might otherwise deem to be in their best interests. Among other things, the Certificate and Bylaws provide that:

- newly-created directorships resulting from an increase in the number of directors and any vacancy on the Board may be filled solely and exclusively by a majority vote of the remaining directors then in office, even if less than a quorum (and not by stockholders);

- stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner and be stockholders of record entitled to vote at such meeting on the date of the giving of such notice, and also specify requirements as to the form and content of a stockholder's notice;

- stockholders may not act by written consent in lieu of a duly called annual or special meeting of stockholders;

- no stockholder shall have cumulative voting rights for the election of directors;

- the affirmative vote of 80% of the Company’s outstanding voting stock is required to (i) adopt any agreement for the merger or consolidation of the Company with or into any other corporation which is the beneficial owner of more than 5% of the Company’s outstanding voting stock, and (ii) authorize any sale or lease of all or any substantial part of the Company’s assets to any beneficial holder of 5% or more of the Company’s outstanding voting stock;

- any tender offer made by a beneficial owner of more than 5% of the Company’s outstanding voting stock in connection with any (i) plan of merger, consolidation or reorganization; (ii) sale or lease of substantially all of the Company’s assets; or (iii) issuance of equity securities to the 5% stockholder must provide at least as favorable terms to each holder of Common Stock (other than the stockholder making the tender offer) as the most favorable terms granted by such stockholder pursuant to such offer; and

- the Company may not acquire any voting stock from the beneficial owner of more than 5% of the Company’s outstanding voting stock, except for acquisitions pursuant to a tender offer to all holders of the Company’s outstanding voting stock on the same price, terms and conditions, acquisitions in compliance with Rule 10b-18 under the Exchange Act and acquisitions at a price not exceeding the market value per share.

In addition, as a Delaware corporation, the Company is subject to the provisions of Section 203 of the DGCL, which prohibits the Company, subject to certain exceptions described below, from engaging in a “business combination” with:

- a stockholder who owns 15% or more of the Company’s outstanding voting stock (otherwise known as an “interested stockholder”);

- an affiliate of an interested stockholder; or

- an associate of an interested stockholder,

in each case, for three years following the date that the stockholder became an interested stockholder.

A “business combination” includes a merger or sale of more than 10% of the Company’s assets. However, the above provisions of Section 203 do not apply if:

- the Board approves the transaction that made the stockholder an “interested stockholder,” prior to the date of the transaction;

- after the completion of the transaction that resulted in the stockholder becoming an interested stockholder, that stockholder owned at least 85% of the Company’s voting stock outstanding at the time the transaction commenced, other than statutorily excluded shares of common stock; or

- on or subsequent to the date of the transaction, the business combination is approved by the Board and authorized at a meeting of the Company’s stockholders, and not by written consent, by an affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

Exhibit 10.13

First Amendment to the
APACHE CORPORATION
2016 Omnibus Compensation Plan

WHEREAS, Apache Corporation, a Delaware corporation (the “Company”), sponsors and maintains the 2016 Omnibus Compensation Plan, originally effective May 12, 2016 (the “Plan”); and

WHEREAS, the Company, pursuant to Section 17 of the Plan, has the right to amend the Plan, subject to such amendments being approved by the Board of Directors or the Management Development and Compensation Committee of the Company; and

WHEREAS, the Company desires to amend the Plan to maintain consistency in the definition of “Involuntary Termination” as defined in its various compensation plans.

NOW, THEREFORE, the Plan is amended as follows:

1. Section 2.1(q) is hereby amended in its entirety as follows:

> (q) “*Involuntary Termination*” means the termination of employment of the Participant by the Company or its successor for any reason on or after a Change of Control; provided, that the termination does not result from an act of the Participant that (i) constitutes common law fraud, a felony, or gross malfeasance of duty and (ii) is materially detrimental to the best interests of the Company or its successor; provided that clause (ii) shall not apply to any Award that was intended to be or is exempt from Internal Revenue Code Section 162(m) as qualified performance-based compensation and granted on or before November 2, 2017, to any “covered employee” (as determined under Internal Revenue Code Section 162(m), as amended by the Tax Cuts and Jobs Act of 2017) if clause (ii) constitutes a material modification of the agreement providing such Award as determined under Internal Revenue Code Section 162(m), IRS Notice 2018-68 and other applicable guidance, that would otherwise result in some or all of such Award not being deductible by the Company for federal tax purposes.

Date: July 29, 2019.

Attest:	APACHE CORPORATION
/s/ Rajesh Sharma	By: /s/ Dominic J. Ricotta
Rajesh Sharma	Dominic J. Ricotta
Corporate Secretary	Senior Vice President,
	Human Resources

First Amendment to the
APACHE CORPORATION
2011 Omnibus Equity Compensation Plan

WHEREAS, Apache Corporation, a Delaware corporation (the "Company"), sponsors and maintains the 2011 Omnibus Equity Compensation Plan, as amended and restated May 12, 2016 (the "Plan"); and

WHEREAS, the Company, pursuant to Section 16 of the Plan, has the right to amend the Plan, subject to such amendments being approved by the Board of Directors or the Management Development and Compensation Committee of the Company; and

WHEREAS, the Company desires to amend the Plan to maintain consistency in the definitions of "Change of Control" and "Involuntary Termination" as defined in its various compensation plans.

NOW, THEREFORE, the Plan is amended as follows:

1. Section 2.1(e) is hereby amended in its entirety as follows:

> (e) *"Change of Control"* shall have the meaning assigned to such term in the Company's Income Continuance Plan.

2. Section 2.1(o) is hereby amended in its entirety as follows:

> (o) "*Involuntary Termination*" means the termination of employment of the Participant by the Company or its successor for any reason on or after a Change of Control; provided, that the termination does not result from an act of the Participant that (i) constitutes common law fraud, a felony, or gross malfeasance of duty and (ii) is materially detrimental to the best interests of the Company or its successor; provided that clause (ii) shall not apply to any Award that was intended to be or is exempt from Internal Revenue Code Section 162(m) as qualified performance-based compensation and granted on or before November 2, 2017, to any "covered employee" (as determined under Internal Revenue Code Section 162(m), as amended by the Tax Cuts and Jobs Act of 2017) if clause (ii) constitutes a material modification of the agreement providing such Award as determined under Internal Revenue Code Section 162(m), IRS Notice 2018-68 and other applicable guidance, that would otherwise result in some or all of such Award not being deductible by the Company for federal tax purposes.

Date: July 29, 2019.

Attest:	APACHE CORPORATION
/s/ Rajesh Sharma	By: /s/ Dominic J. Ricotta
Rajesh Sharma	Dominic J. Ricotta
Corporate Secretary	Senior Vice President,
	Human Resources

APACHE CORPORATION

Amendment of Performance Share Grant Agreement

Apache Corporation ("Apache") sponsors the Apache Corporation 2011 Omnibus Equity Compensation Plan and the Apache Corporation 2016 Omnibus Compensation Plan (collectively, the "Plans"). Pursuant to the Plans and the annual Performance Share Programs initiated thereunder ("Performance Programs"), Conditional Grants (as defined in the Performance Programs) of Restricted Stock Units (as defined in the Plans) have been granted to various "Eligible Persons" (as defined in the Plan), and Apache, pursuant to the terms of the various Performance Share Program Agreements ("Performance Share Agreements") and the Plans, reserved the right to amend the Performance Share Agreements from time to time. Apache, effective July 29, 2019, exercised that right with respect to only those Performance Share Agreements which are valid and outstanding prior to July 29, 2019 and other than as provided in certain resolutions adopted by the Management Development and Compensation Committee of the Board of Directors of Apache, as follows:

1. The paragraph discussing vesting upon a Change of Control in the **"Vesting Period"** portion of the Grant Notice of such Performance Share Agreement with respect to employment termination and Retirement is replaced with the provision set forth below, provided that all provisions related to deferrals into the Apache Corporation Deferred Delivery Plan shall remain in effect:

> Vesting is accelerated to 100% upon the Recipient's Involuntary Termination or Voluntary Termination with Cause occurring (i) on or after a Change of Control which occurs on or before the end of the Performance Period provided that the Recipient is an Eligible Person at the time of such termination, with vesting to be in the number of RSUs determined by applying the multiple of 1.00 to the Target Amount or (ii) on or after a Change of Control which occurs after completion of the Performance Period. Upon such vesting, the applicable amount of Stock/cash, subject to required tax withholding, shall be paid by the Company to the Recipient within thirty (30) days of such vesting date.
>
> If, after the first three (3) months of the Performance Period (and not before), the Recipient's termination of employment from the Company and the Affiliates occurs by reason of his or her Retirement, the Recipient shall be deemed to continue to be employed as an Eligible Person for purposes of this Grant and shall continue to vest with respect to a specified percentage of RSUs over the Vesting Period provided that the Recipient meets the Retirement Conditions set forth in section 6 of the Agreement. In the event of a Change of Control after the Recipient retires during the period commencing on the first day following the first three (3) months of the Performance Period and ending on the last day of the Vesting Period, vesting is accelerated to 100% for such Recipient upon the occurrence of the Change of Control. In the event of a Change of Control prior to the Recipient's termination of

employment by reason of Retirement and after the first three (3) months of the Performance Period and ending on the last day of the Vesting Period, the Recipient shall become 100% vested upon the Recipient's termination of employment by reason of Retirement. Unless expressly otherwise provided in the Agreement with respect to Retirement and Change of Control, the applicable amount of Stock/cash, subject to required tax withholding, shall be paid by the Company to the Recipient upon the earlier to occur of a 409A Change of Control or the normal vesting dates (in the applicable percentage amounts). Payment shall be made within thirty (30) days of a 409A Change of Control or within sixty (60) days of the normal vesting dates, whichever is applicable.

2. The definitions of "Involuntary Termination" and "Voluntary Termination with Cause" are replaced in their entirety to read as follows:

"Involuntary Termination" means the termination of employment of the Recipient by the Company or its successor for any reason on or after a Change of Control; provided, that the termination does not result from an act of the Recipient that (i) constitutes common-law fraud, a felony, or a gross malfeasance of duty and (ii) is materially detrimental to the best interests of the Company or its successor; provided that clause (ii) shall not apply to any RSU Award that was awarded on or before November 2, 2017, to any "covered employee" (as determined under Section 162(m) of the Code, as amended by the Tax Cuts and Jobs Act of 2017) if this amended definition constitutes a material modification of the agreement providing such RSU Award as determined under Section 162(m) of the Code, IRS Notice 2018-68 and other applicable guidance, that would otherwise result in some or all of such RSU Award not being deductible by the Company for federal tax purposes.

"Voluntary Termination with Cause" occurs upon a Recipient's separation from service of his or her own volition and one or more of the following conditions occurs without the Recipient's consent on or after a Change of Control:

(a) There is a material diminution in the Recipient's base compensation, compared to his or her rate of base compensation on the date of the Change of Control.

(b) There is a material diminution in the Recipient's authority, duties or responsibilities.

(c) There is a material diminution in the authority, duties or responsibilities of the Recipient's supervisor, such as a requirement that the Recipient (or his or her supervisor) report to a corporate officer or employee instead of reporting directly to the board of directors.

(d) There is a material diminution in the budget over which the Recipient retains authority.

(e) There is a material change in the geographic location at which the Recipient must perform his or her service, including, for example the assignment of the Recipient to a regular workplace that is more than 50 miles from his or her regular workplace on the date of the Change of Control.

The Recipient must notify the Company of the existence of one or more adverse conditions specified in clauses (a) through (e) above within 90 days of the initial existence of the adverse condition. The notice must be provided in writing to the Company or its successor, attention: Vice President, Human Resources. The notice may be provided by personal delivery or it may be sent by email, inter-office mail, regular mail (whether or not certified), fax, or any similar method. The Company’s Vice President, Human Resources, or his/her delegate shall acknowledge receipt of the notice within 5 business days; the acknowledgement shall be sent to the Recipient by certified mail. Notwithstanding the foregoing provisions of this definition, if the Company remedies the adverse condition within 30 days of being notified of the adverse condition, no Voluntary Termination with Cause shall occur. This amended definition of Voluntary Termination with Cause shall not apply (and the previous definition shall apply) to any RSU Award that was awarded on or before November 2, 2017, to any “covered employee” (as determined under Section 162(m) of the Code, as amended by the Tax Cuts and Jobs Act of 2017) if this amended definition constitutes a material modification of the agreement providing such RSU Award as determined under Section 162(m) of the Code, IRS Notice 2018-68 and other applicable guidance, that would otherwise result in some or all of such RSU Award not being deductible by the Company for federal tax purposes.

3. Section 5 is replaced in its entirety to read as follows:

5. Change of Control.

(a) Pursuant to Section 13.1(c)(iii) and (d) of the Plan, the following provisions of this section 5 of the Agreement shall supersede Sections 13.1(a), (b) and (c) of the Plan. Without any further action by the Committee or the Board, in the event of the Recipient’s Involuntary Termination or Voluntary Termination with Cause which occurs (i) on or after a Change of Control and (ii) prior to the end of the Performance Period, the Recipient shall become 100% vested as of the date of such Involuntary Termination or Voluntary Termination with Cause in the number of RSUs determined by applying the multiple of 1.00 to the Target Amount. Subject to section 12(b) of this Agreement, payment shall occur within thirty (30) days of the date of such Involuntary Termination or Voluntary Termination with Cause, subject to required tax withholding.

(b) In the event of a Recipient’s Involuntary Termination or Voluntary Termination with Cause occurring on or after a Change of Control which occurs after the end of the Performance Period, the Recipient shall become 100% vested in the

Final Amount of RSUs as of the date of such Involuntary Termination or Voluntary Termination with Cause. Subject to section 12(b) of this Agreement, payment shall occur within thirty (30) days of the date of such Involuntary Termination or Voluntary Termination with Cause, subject to required tax withholding.

(c) In the event of a Change of Control following the Recipient's termination of employment by reason of Retirement, after the first three (3) months of the Performance Period and ending on the last day of the Vesting Period, the Recipient, shall become 100% vested in the unvested Final Amount of RSUs as of the date of the Change of Control. Subject to section 12(b) of this Agreement, payment shall occur within thirty (30) days of a 409A Change of Control provided that if no 409A Change of Control occurs during the Performance Period, nor during the period of continued vesting as set forth in section 3(b) and 4(c) of this Agreement, then the Final Amount shall be paid by the Company to the Recipient who is retired, within sixty (60) days of the vesting dates (in the applicable percentage amounts) set forth in section 2 of this Agreement, subject to required tax withholding. In the event of a Change of Control prior to the Recipient's termination of employment by reason of Retirement and after the first three (3) months of the Performance Period and ending on the last day of the Vesting Period, the Recipient shall become 100% vested in the unvested Final Amount of RSUs as of the date that the Recipient terminates employment by reason of Retirement. For the purpose of vesting as set forth in the prior sentence, a Recipient's Involuntary Termination or Voluntary Termination with Cause after a Change of Control shall be deemed a termination by reason of Retirement. Subject to section 12(b) of this Agreement, if the Recipient terminates employment by reason of Retirement after a Change of Control, the Recipient shall receive payment with respect to 100% of such Final Amount within sixty (60) days of the vesting dates (in the applicable percentage amounts) as set forth in section 2 of this Agreement, subject to required tax withholding.

4. The previous stated revisions shall apply to any Performance Share Agreement whether the payment is to be in the corporation's common stock or in cash, and the provisions in the Performance Share Agreement related to such payments shall be maintained as provided in a Performance Share Agreement.

5. The previous stated revisions shall not apply or be made to any Performance Share Agreement that was awarded on or before November 2, 2017, to any "covered employee" (as determined under Section 162(m) of the Code, as amended by the Tax Cuts and Jobs Act of 2017).

6. If a Performance Share Agreement contains different Section cites, headings, etc., but contains similar provisions to those being replaced by the replacement provisions set forth in the foregoing, then the replacement provisions shall apply to such Performance Share Agreement and such Performance Share Agreements are amended in accordance with the foregoing revisions subject to adjustment, as appropriate, for the different Section cites, headings, etc., and if any Section or paragraph containing a provision to be replaced

as set forth in this amendment has an introductory sentence or clause or ending sentence or clause, the replacement provision shall include any such introductory and/or ending sentence or clause.

EXECUTED this 29th day of July, 2019.

APACHE CORPORATION

By: /s/ Dominic J. Ricotta
Dominic J. Ricotta
Senior Vice President,
Human Resources

Exhibit 10.53

APACHE CORPORATION

Amendment of Restricted Stock Unit Award Agreement

Apache Corporation (“Apache”) sponsors the Apache Corporation 2011 Omnibus Equity Compensation Plan and the Apache Corporation 2016 Omnibus Compensation Plan (collectively, the “Plans”). Pursuant to the Plans, “Restricted Stock Units” (as defined in the Plans) have been granted to various “Eligible Persons” (as defined in the Plan), and Apache, pursuant to the terms of the Apache Corporation Restricted Stock Unit Award Agreement (“RSU Agreement”) and the Plans, reserved the right to amend the RSU Agreement from time to time. Apache, effective July 29, 2019, exercised that right with respect to only those RSU Agreements which are valid and outstanding prior to July 29, 2019, as follows:

1. The paragraph discussing vesting upon a Change of Control in the **“Vesting Period”** portion of the Grant Notice of such RSU Agreement is replaced with the provision set forth below, provided that all provisions related to deferrals into the Apache Corporation Deferred Delivery Plan shall remain in effect:

   Vesting is accelerated to 100% upon the Recipient’s Involuntary Termination or Voluntary Termination with Cause occurring on or after a Change of Control that occurs during the Vesting Period. With respect to a Recipient who continues to vest following his or her termination due to Retirement, vesting is accelerated to 100% upon a Change of Control that occurs during the Vesting Period and on or after such termination by reason of Retirement. With respect to a Recipient who terminates employment by reason of Retirement after a Change of Control, vesting is accelerated to 100% upon the Recipient’s termination of employment by reason of Retirement. Unless expressly otherwise provided in the Agreement with respect to Retirement and Change of Control, the applicable amount of cash/shares of Stock, subject to required tax withholding, shall be paid/transferred by the Company to the Recipient within thirty (30) days of the vesting date.

2. The definition of “409A Change of Control” is added as follows:

   “409A Change of Control” means a Change of Control that constitutes, with respect to Apache Corporation, a “change in the ownership or effective control of the corporation, or in the ownership of a substantial portion of the assets of the corporation” within the meaning of Section 409A(a)(2)(A)(v) of the Internal Revenue Code of 1986, as amended (the “Code”) and Treasury Regulations Section 1.409A-3(i)(5).

3. The definitions of "Involuntary Termination" and "Voluntary Termination with Cause" are replaced in their entirety to read as follows:

"Involuntary Termination" means the termination of employment of the Recipient by the Company or its successor for any reason on or after a Change of Control; provided, that the termination does not result from an act of the Recipient that (i) constitutes common-law fraud, a felony, or a gross malfeasance of duty and (ii) is materially detrimental to the best interests of the Company or its successor; provided that clause (ii) shall not apply to any RSU Award that was awarded on or before November 2, 2017, to any "covered employee" (as determined under Section 162(m) of the Code, as amended by the Tax Cuts and Jobs Act of 2017) if this amended definition constitutes a material modification of the agreement providing such RSU Award as determined under Section 162(m) of the Code, IRS Notice 2018-68 and other applicable guidance, that would otherwise result in some or all of such RSU Award not being deductible by the Company for federal tax purposes.

"Voluntary Termination with Cause" occurs upon a Recipient's separation from service of his or her own volition and one or more of the following conditions occurs without the Recipient's consent on or after a Change of Control:

(a) There is a material diminution in the Recipient's base compensation, compared to his or her rate of base compensation on the date of the Change of Control.

(b) There is a material diminution in the Recipient's authority, duties or responsibilities.

(c) There is a material diminution in the authority, duties or responsibilities of the Recipient's supervisor, such as a requirement that the Recipient (or his or her supervisor) report to a corporate officer or employee instead of reporting directly to the board of directors.

(d) There is a material diminution in the budget over which the Recipient retains authority.

(e) There is a material change in the geographic location at which the Recipient must perform his or her service, including, for example the assignment of the Recipient to a regular workplace that is more than 50 miles from his or her regular workplace on the date of the Change of Control.

The Recipient must notify the Company of the existence of one or more adverse conditions specified in clauses (a) through (e) above within 90 days of the initial existence of the adverse condition. The notice must be provided in writing to the Company or its successor, attention: Vice President, Human Resources. The notice may be provided by personal delivery or it may be sent by email, inter-office mail, regular mail (whether or not certified), fax, or any similar method. The Company's Vice President, Human Resources, or his/her delegate shall acknowledge receipt of the notice within 5 business days; the acknowledgement shall be sent to the Recipient by certified mail. Notwithstanding the foregoing provisions of this definition, if the Company remedies the adverse condition within 30 days of being notified of the adverse condition, no Voluntary Termination with Cause shall occur. This amended definition of Voluntary Termination with Cause shall not apply (and the previous definition shall apply) to any RSU Award that was awarded on or before November 2, 2017, to any "covered employee" (as determined under Section 162(m) of the Code, as amended by the Tax Cuts and Jobs Act of 2017) if this amended definition constitutes a material modification of the agreement providing such RSU Award as determined under Section 162(m) of the Code, IRS Notice 2018-68 and other applicable guidance, that would otherwise result in some or all of such RSU Award not being deductible by the Company for federal tax purposes.

4. Section 4 is replaced in its entirety to read as follows:

4. Change of Control. Pursuant to Section 13.1(c)(iii) and (d) of the Plan, the following provisions of this section 4 of the Agreement shall supersede Sections 13.1(a), (b) and (c) of the Plan. Without any further action by the Committee or the Board, in the event of a Recipient's Involuntary Termination or Voluntary Termination with Cause occurring on or after a Change of Control during the Vesting Period, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date of his or her Involuntary Termination or Voluntary Termination with Cause. Subject to section 12(d) of this Agreement, payment shall occur within thirty (30) days following the date of such Involuntary Termination or Voluntary Termination with Cause, subject to required tax withholding. Further, in the event of a Change of Control following the Recipient's termination of employment by reason of Retirement while the Recipient is continuing to vest in the RSUs pursuant to section 3(b) of this Agreement, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date of the Change of Control (including those excluded by the specified percentage set forth in Exhibit "A"). Subject to section 12(d) of this Agreement, the Recipient, if the Recipient terminates employment on account of Retirement prior to the occurrence of a Change of Control, shall receive payment with respect to 100% of the fully vested RSUs within thirty (30) days of the date of a 409A Change of Control, or if the Change of Control is not a 409A Change of Control, on the remaining vesting dates during the Vesting Period in the amount of 1/3 (on each of the remaining vesting dates) of the RSUs awarded as of the Grant Date, subject to required tax withholding. Further still, in the event of a Change of Control prior to the Recipient's termination of employment by reason of Retirement during the Vesting Period, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date the Recipient terminates employment by reason of Retirement (including those

excluded by the specified percentage set forth in Exhibit "A"). For the purpose of vesting as set forth in the prior sentence, a Recipient's Involuntary Termination or Voluntary Termination with Cause after a Change of Control shall be deemed a termination by reason of Retirement. Subject to section 12(d) of this Agreement, the Recipient, who terminates employment by reason of Retirement after a Change of Control, shall receive payment with respect to 100% of the fully vested RSUs on the remaining vesting dates during the Vesting Period in the amount of 1/3 (on each of the remaining vesting dates) of the RSUs awarded as of the Grant Date, subject to required tax withholding.

5. The previous stated revisions shall apply to any RSU Agreement whether the payment is to be in the corporation's common stock or in cash, and the provisions in the RSU Agreement related to such payments shall be maintained as provided in an RSU Agreement.

6. The previous stated revisions shall not apply or be made to any RSU Agreement that was awarded on or before November 2, 2017, to any "covered employee" (as determined under Section 162(m) of the Code, as amended by the Tax Cuts and Jobs Act of 2017).

7. If an RSU Agreement contains different Section cites, headings, etc., but contains similar provisions to those being replaced by the replacement provisions set forth in the foregoing, then the replacement provisions shall apply to such RSU Agreements and such RSU Agreements are amended in accordance with the foregoing revisions subject to adjustment, as appropriate, for the different Section cites, headings, etc., and if any Section or paragraph containing a provision to be replaced as set forth in this amendment has an introductory sentence or clause or ending sentence or clause, the replacement provision shall include any such introductory and/or ending sentence or clause.

EXECUTED this 29th day of July, 2019.

APACHE CORPORATION

By: /s/ Dominic J. Ricotta
Dominic J. Ricotta
Senior Vice President,
Human Resources

Exhibit 10.54

APACHE CORPORATION

Amendment of Stock Option Grant Agreement

Apache Corporation ("Apache") sponsors the Apache Corporation 2011 Omnibus Equity Compensation Plan and the Apache Corporation 2016 Omnibus Compensation Plan (collectively, the "Plans"). Pursuant to the Plans, "Options" (as defined in the Plans) have been granted to various "Eligible Persons" (as defined in the Plan), and Apache, pursuant to the terms of the Apache Corporation Stock Option Grant Agreement ("Option Agreement") and the Plans, reserved the right to amend the Option Agreement from time to time. Apache, effective July 29, 2019, exercised that right with respect to only those Option Agreements which are valid and outstanding prior to July 29, 2019 and other than as provided in certain resolutions adopted by the Management Development and Compensation Committee of the Board of Directors of Apache, as follows:

1. The definition of "Involuntary Termination" is replaced in its entirety to read as follows:

"Involuntary Termination" means the termination of employment of the Participant by the Company or its successor for any reason on or after a Change of Control; provided, that the termination does not result from an act of the Participant that (i) constitutes common-law fraud, a felony, or a gross malfeasance of duty and (ii) is materially detrimental to the best interests of the Company or its successor; provided that clause (ii) shall not apply to any Option Award that was awarded on or before November 2, 2017, to any "covered employee" (as determined under Section 162(m) of the Code, as amended by the Tax Cuts and Jobs Act of 2017) if this amended definition constitutes a material modification of the agreement providing such Option Award as determined under Section 162(m) of the Code, IRS Notice 2018-68 and other applicable guidance, that would otherwise result in some or all of such Option Award not being deductible by the Company for federal tax purposes.

EXECUTED this 29th day of July, 2019.

APACHE CORPORATION

By: /s/ Dominic J. Ricotta
Dominic J. Ricotta
Senior Vice President,
Human Resources

SCHEDULE A

Apache Corporation
2020 Performance Share Program

AWARD NOTICE

Recipient Name:	[Name]
Company:	Apache Corporation
Notice:	A summary of the terms of Conditional Grants of Restricted Stock Units ("RSUs") under the 2020 Performance Share Program is set out in this notice (the "Award Notice") but subject always to the terms of the Apache Corporation 2016 Omnibus Compensation Plan (the "Plan") and the 2020 Performance Share Program Agreement (the "Agreement"). In the event of any inconsistency between the terms of this Award Notice, the terms of the Plan and the Agreement, the terms of the Plan and the Agreement shall prevail. The Conditional Grant is a Cash-Based Award under Section 10 of the Plan and is subject to the provisions of the Plan governing Performance Awards. Selected Eligible Persons have been awarded a conditional grant of Apache Corporation RSUs in accordance with the terms of the Plan and the Agreement. Details of the RSUs which you are conditionally entitled to receive is provided to you in this Award Notice and maintained on your account at netbenefits.fidelity.com.
Type of Award:	A conditional award of RSUs based on a target percentage of annual base salary determined at the beginning of the Performance Period derived from job level (the "Conditional Grant").
Restricted Stock Unit:	A Restricted Stock Unit ("RSU") as defined in the Plan and meaning the right granted to the Recipient of the Conditional Grant, as adjusted at the end of the Performance Period, to receive one share of Stock or the cash equivalent thereof for each RSU at the end of the specified Vesting Period.
Stock:	The $0.625 par value common stock of the Company or as otherwise defined in the Plan.
Grant:	A Conditional Grant related to ______ Restricted Stock Units ("Target Amount").
Grant Date:	[Date]

Conditions:	Subject always to the terms of the Plan and the Agreement, the Conditional Grant of RSUs shall be made as of the Grant Date. At the end of the Performance Period, the Committee shall derive and confirm the number of Conditional Grant RSUs that will actually be awarded as RSUs to the Recipient based upon measurement of the specific performance goals, applicable performance percentage levels and applicable weighting percentages during the Performance Period as set forth in Schedule B to the Agreement, provided that the Recipient remains an Eligible Person and employed by the Company or its Affiliate as of the final day of the Performance Period. Once granted at the conclusion of the Performance Period, such RSUs shall remain subject to a vesting schedule (as set forth below) (the "Vesting Period"). Once vested, the Recipient shall be paid the value of his or her RSUs in cash (net of cash withheld for applicable tax withholdings) provided that the Recipient remains employed as an Eligible Person during the Vesting Period including the vesting date.
Performance Measure:	The performance measures for the Conditional Grant, the performance percentage levels, and the applicable weighting percentages to be applied over the Performance Period are set forth on Schedule B to the Agreement. At the end of the Performance Period, the Committee shall determine and certify the attainment of each performance goal based on the established performance percentage levels and apply the applicable weighting percentages to determine the Final Amount of RSUs to be awarded to each Recipient.
Performance Period:	The three-year period commencing January 1, 2020 and ending December 31, 2022.
Vesting Period:	Except upon a change of control (as described below), death or Disability (as described below), or Retirement (as described below), cessation of employment during the Performance Period shall result in the immediate forfeiture of the entire amount of the Conditional Grant. Any such RSUs awarded shall vest in accordance with the following schedule, provided that the Recipient remains employed as an Eligible Person as of such vesting date: First day following the close of the Performance Period – 50% vested. First anniversary of the first day following the close of the Performance Period – an additional 50% vested. Except as described below, cessation of employment will result in the immediate forfeiture of all unvested RSUs.

Upon such vesting, the applicable amount of cash, subject to required tax withholding, shall be paid by the Company to the Recipient within sixty (60) days of such vesting date.

Vesting is accelerated to 100% upon the Recipient's death or cessation of employment by reason of Disability during the Performance Period or the subsequent Vesting Period (or, only in the case of death, while treated as an Eligible Person following Retirement (as described herein)). Upon death or cessation of employment by reason of Disability during the Performance Period, the number of RSUs (and related shares of Stock) granted and vested shall be deemed to be 1.00 times the Conditional Grant amount of RSUs (the Target Amount). Upon such vesting, the applicable amount of cash, subject to required tax withholding, shall be paid by the Company to the Recipient's designated beneficiary, legal representatives, heirs, or legatees, as applicable, in accordance with the terms of the Plan and this Agreement. The Recipient can name a beneficiary on a form approved by the Committee.

Vesting is accelerated to 100% upon the Recipient's Involuntary Termination or Voluntary Termination with Cause occurring (i) on or after a Change of Control which occurs on or before the end of the Performance Period provided that the Recipient is an Eligible Person at the time of such termination, with vesting to be in the number of RSUs determined by applying the multiple of 1.00 to the Target Amount or (ii) on or after a Change of Control which occurs after completion of the Performance Period. Upon such vesting, the applicable amount of cash, subject to required tax withholding, shall be paid by the Company to the Recipient within thirty (30) days of such vesting date.

If, after the first three (3) months of the Performance Period (and not before), the Recipient's termination of employment from the Company and the Affiliates occurs by reason of his or her Retirement, the Recipient shall be deemed to continue to be employed as an Eligible Person for purposes of this Grant and shall continue to vest with respect to a specified percentage of RSUs over the Vesting Period provided that the Recipient meets the Retirement Conditions set forth in section 6 of the Agreement. In the event of a Change of Control after the Recipient retires during the period commencing on the first day following the first three (3) months of the Performance Period and ending on the last day of the Vesting Period, vesting is accelerated to 100% for such Recipient upon the occurrence of the Change of Control. In the event of a Change of Control prior to the Recipient's termination of employment by reason of Retirement and after the first three (3) months of the Performance Period and ending on the last day of the Vesting Period, the Recipient shall become 100% vested upon the Recipient's termination of employment by reason of

Retirement. Unless expressly otherwise provided in the Agreement with respect to Retirement and Change of Control, the applicable amount of cash, subject to required tax withholding, shall be paid by the Company to the Recipient upon the earlier to occur of a 409A Change of Control or the normal vesting dates (in the applicable percentage amounts). Payment shall be made within thirty (30) days of a 409A Change of Control or within sixty (60) days of the normal vesting dates, whichever is applicable.

Withholding: The Company and the Recipient will comply with all federal and state laws and regulations respecting the required withholding, deposit and payment of any income, employment, or other taxes relating to the Grant.

Clawback: This Grant is subject to the Company's Executive Compensation Clawback Policy (a copy of which is provided with this Notice) and the recoupment and reimbursement policies as provided in the Agreement.

Dividends: The Company will credit each of the Recipient's Conditional Grant RSUs and RSUs, as applicable, with Dividend Equivalents. For purposes of this Grant, a Dividend Equivalent is an amount equal to the cash dividend payable per share of Stock multiplied by the number of shares of Stock then underlying such outstanding Conditional Grant RSUs or RSUs, as applicable. Such amount will be credited to a book entry account on Recipient's behalf at the time the Company pays any cash dividend on its Stock. The Recipient's rights in any such Dividend Equivalents will vest at the same time as, and only to the extent that, the underlying Conditional Grant RSUs or RSUs, as applicable, vest and will be distributed at the same time in cash (subject to applicable withholdings), and only to the extent, as the related RSUs are to be distributed to the Recipient as provided in the Agreement and to which such Dividend Equivalents apply. Dividend Equivalents on Conditional Grant RSUs will accrue and be credited by the Company but will be subject to the same performance goals, applicable performance percentage levels and applicable weighting percentages as the related Conditional Grant RSUs. Dividend Equivalents (as so adjusted) will not be paid to a Recipient until such Recipient becomes vested in the related RSUs granted at the end of the Performance Period and will be forfeited in the event of the forfeiture and cancellation of the related Conditional Grant RSUs and RSUs pursuant to this Agreement.

Acceptance Please complete the on-line grant acceptance as promptly as possible to accept or reject your Conditional Grant. You can access this through your account at netbenefits.fidelity.com. By accepting your Conditional Grant, you will have agreed to the terms and conditions set forth in the Agreement, including, but not limited to, the non-compete and non-disparagement provisions set forth in sections 6 and 7 of the Agreement, and the terms and conditions of the Plan. If you do not accept your grant, your Conditional Grant and the related RSUs will not vest and you will be unable to receive your Conditional Grant or the related RSUs.

SCHEDULE B

Apache Corporation
2020 Performance Share Program

PERFORMANCE MEASURES

Performance Goals: ***1. Total Shareholder Return***

At the end of the Performance Period, the Committee shall derive and confirm a portion of the number of Conditional Grant RSUs that will actually be awarded as RSUs to the Recipient based upon measurement of total shareholder return (“TSR”) of Stock as compared to a designated Peer Group during the Performance Period, provided that the Recipient remains an Eligible Person and employed by the Company or its Affiliate as of the final day of the Performance Period.

TSR is determined by dividing (i) the sum of the cumulative amount of a company’s or index fund’s dividends for the performance period (assuming same-day reinvestment into the company’s common stock or index fund on the ex-dividend date) and the share price of the company or index fund at the end of the performance period minus the share price at the beginning of the performance period by (ii) the share price at the beginning of the performance period.

– <u>Begin Price</u> = Average per share closing price of a share or share equivalent on the applicable stock exchange for the month of December immediately preceding the beginning of the performance period

– <u>End Price</u> = Average per share closing price of a share or share equivalent on the applicable stock exchange for the month in which the performance period ends

– <u>Dividends</u> = Includes dividends paid throughout performance period

– TSR ranking compared to designated Peer Group (16 companies and one index selected)

  - o Antero Resources Corp.
  - o Cabot Oil & Gas Corporation
  - o Cimarex Energy Co.

- Concho Resources Inc.
- ConocoPhillips Company
- Devon Energy Corporation
- Diamondback Energy, Inc.
- Encana Corporation
- EOG Resources, Inc.
- EQT Corporation
- Hess Corporation
- Marathon Oil Corporation
- Murphy Oil Corporation
- Noble Energy Inc.
- Occidental Petroleum Corporation
- Pioneer Natural Resources Co.
- S&P 500 Index

– Apache's performance over a three-year performance period will be directly ranked within the peer group, resulting in the application of a single multiplier to the target shares to derive the number of shares awarded. The multiplier will range from 0 for performance in the bottom 1/6th to 2.0 for ranking in the top 1/6th among the peer group.

– Should consolidation among peers in the marketplace occur, the ranking schedule would adjust to accommodate the reduced number of peers.

2. Business Performance

The Committee shall derive and confirm a portion of the number of Conditional Grant RSUs that will actually be awarded as RSUs to the Recipient based upon a performance target determined at the beginning of the Performance Period related to the following criteria:

- Cash Return on Invested Capital

Performance is measured based on the three-year average relative to target.

The Committee will consider all of the above performance measures related to the Company as a whole as follows:

Metric	Weighting	Threshold	Target	Max
Total Shareholder Return	50%	15th	9th - 10th	1st – 3rd
Cash Return on Invested Capital	50%	50%	100%	200%

Performance Period: Three calendar years

- 1/1/2020 to 12/31/2022

Measurement: At the conclusion of the three-year performance period, a calculation of TSR performance will be made and confirmed. 50% of the total Target Amount of RSUs will be determined based upon the final TSR performance as follows:

Rank Against Peers	Payout Multiple
1	2.00
2	2.00
3	2.00
4	1.85
5	1.70
6	1.55
7	1.40
8	1.25
9	1.10
10	0.90
11	0.75
12	0.60
13	0.45
14	0.30
15	0.15
16	0.00
17	0.00
18	0.00

If Apache's absolute TSR for the three-year performance period is negative, the 50% TSR portion of the total Target Amount of RSUs will be capped at the 1.00 Payout Multiple, regardless of whether the Rank Against Peers above achieved a higher Payout Multiple.

Cash Return on Invested Capital will be evaluated over the three-year Performance Period against a performance target determined prior to March 31 at the beginning of the performance period. Performance will be measured based on the three-year average relative to target. 50% of the total Target Amount of RSUs will be determined based upon the three-year average Cash Return on Invested Capital.

The three-year average performance for cash return on invested capital will be interpolated as follows to determine the final achievement percentage for each metric.

Metric	Threshold	Target	Max
Cash Return on Invested Capital	50%	100%	200%

Apache Corporation
2020 Performance Share Program Agreement

This 2020 Performance Share Program Agreement (the "Agreement") relating to a conditional grant of Restricted Stock Units (as defined in the definition section of the Apache Corporation 2016 Omnibus Compensation Plan (the "Plan")) (the "Conditional Grant"), dated as of the Grant Date set forth in the Notice of Award under the 2020 Performance Share Program attached as Schedule A hereto (the "Award Notice"), is made between Apache Corporation (together with its Affiliates, the "Company") and each Recipient. The Award Notice is included in and made part of this Agreement.

In this Agreement and each Award Notice, unless the context otherwise requires, words and expressions shall have the meanings given to them in the Plan except as herein defined.

Definitions

"409A Change of Control" means a Change of Control that constitutes, with respect to Apache Corporation, a "change in the ownership or effective control of the corporation, or in the ownership of a substantial portion of the assets of the corporation" within the meaning of Section 409A(a)(2)(A)(v) of the Internal Revenue Code of 1986, as amended (the "Code") and Treasury Regulations Section 1.409A-3(i)(5).

"Award Notice" means the separate notice, along with Schedule B, given to each Recipient specifying the Target Amount and other applicable performance percentage levels, performance criteria and applicable weighting percentages for that individual.

"Base Salary" means, with regard to any Recipient, such Recipient's annual base compensation as an employee of the Company determined immediately prior to the beginning of the Performance Period, without regard to any bonus, pension, profit sharing, stock option, life insurance or salary continuation plan which the Recipient either receives or is otherwise entitled to have paid on his or her behalf.

"Conditional Grant" means the conditional entitlement, evidenced by this Agreement to receive all or a portion of a Target Amount and Final Amount, subject to and in accordance with the provisions of this Agreement.

"Disability" or "Disabled" means the Recipient is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. Recipient agrees that a final and binding determination of "Disability" will be made by the Company's representative under the Company's group long-term disability plan or any successor thereto or, if there is no such representative and there is a dispute as to the determination of "Disability," it will be decided in a court of law in Harris County, Texas.

"Fair Market Value" means the fair market value of a share of the Stock as determined by the Committee by the reasonable application of such reasonable valuation method, consistently applied, as the Committee deems appropriate; provided, however, that if the Committee has not made such determination, such fair market value shall be the per share closing price of the Stock as reported on The New York Stock Exchange, Inc. Composite Transactions Reporting System ("Composite Tape") for a particular date or, if the Stock is not so listed at any time, as reported on NASDAQ or on such other exchange or electronic trading system as, on the date in question, reports the largest number of traded shares of stock; provided further, however, that, if there are no Stock transactions on such date, the Fair Market Value shall be determined as of the immediately preceding date on which there were Stock transactions.

"Final Amount" means with regard to any Recipient, such number of shares of Restricted Stock Units ("RSUs") as specified in each Recipient's Award Notice, times the applicable multiple factor determined under the Performance Measures at the end of the Performance Period.

"Involuntary Termination" means the termination of employment of the Recipient by the Company or its successor for any reason on or after a Change of Control; provided, that the termination does not result from an act of the Recipient that (i) constitutes common-law fraud, a felony, or a gross malfeasance of duty and (ii) is materially detrimental to the best interests of the Company or its successor.

"Payout Amount" means the vested portion of the Final Amount expressed as an amount of cash equal to the Fair Market Value of the shares of Stock underlying the RSUs and related Dividend Equivalents.

"Peer Group" means the group of companies selected by the Committee for purposes of this Agreement as set forth in the Award Notice. Should consolidation among any Peer Group companies in the marketplace occur during the Performance Period, the Committee will determine the appropriate adjustments to accommodate the reduced number of Peer Group companies for the Performance Period. Should a Change of Control of Apache Corporation occur during the Performance Period, the Committee will determine the appropriate adjustments to measure Apache Corporation's TSR for the Performance Period. The Peer Group companies for any particular Performance Period shall be determined at the commencement of such Performance Period.

"Performance Measures" means, as set forth in the Award Notice, (i) Apache Corporation's TSR over the Performance Period compared to the TSR of the Company's Peer Group over the Performance Period, or (ii) Apache Corporation's achievement of pre-established performance goals over the Performance Period, as applicable. For purposes of determining TSR performance, at the end of the Performance Period, the Peer Group companies and the Company will be ranked together based on their TSR for the Performance Period from the highest TSR being number 1 to the lowest TSR being the number of Peer Group companies, including the Company, remaining in the group at the end of the Performance Period. Based on the Company's relative TSR rank amongst the Peer Group companies for the Performance Period, a Recipient who remains employed as of the last day of the Performance Period will be issued RSUs at the close of the Performance Period as determined by the Company's percentile rank as set forth in the Award Notice (the Final Amount). At the end of the Performance Period, the Committee shall also determine and certify the levels of other specific performance goals achieved and apply the applicable performance percentage levels and weighting percentages as set forth in the Award Notice. Based on the Company's level of goal achievement, a Recipient who remains employed as of the last day of the Performance Period will be issued RSUs on the day following the close of the Performance Period as determined by the Committee as set forth in the Award Notice (the Final Amount).

“Performance Period” means the three-year period as specified in the Award Notice.

“Recipient” means an Eligible Person who has been designated to receive one or more Conditional Grants in accordance with the Plan. For purposes of this Agreement, the group of Eligible Persons shall include all full-time and designated part-time employees of the Company who are employed as employees of the Company (as designated by the Company for payroll purposes), but excluding Egyptian nationals employed outside of the United States, employees categorized by the Company (for payroll purposes) as non-exempt support and field staff, leased employees, interns, or any employee of the Company who is covered under a collective bargaining agreement, unless such collective bargaining agreement specifically provides for coverage under the Plan.

“Retirement” means, with respect to a Recipient and for purposes of this Agreement, the date the Recipient terminates employment with the Company after attaining (i) age 55 and (ii) a certain combination of age and Years of Service set forth in the Matrix in Exhibit “A” attached hereto.

“Years of Service” means the total number of months from the Recipient’s date of hire by the Company to the date of termination of employment, plus any months required to be recognized under an appropriate acquisition agreement, divided by 12.

“Target Amount” means, with regard to any Recipient, such number of RSUs as specified in each Recipient’s Award Notice. Such Target Amount shall be based upon a target percentage of annual Base Salary determined at the beginning of the Performance Period derived from job level.

“Total Shareholder Return” or “TSR” is determined by dividing (i) the sum of the cumulative amount of a company’s dividends for the Performance Period (assuming same-day reinvestment into the company’s common stock on the ex-dividend date) and the share price of the company at the end of the Performance Period minus the share price at the beginning of the Performance Period, by (ii) the share price at the beginning of the Performance Period.

“Voluntary Termination with Cause” occurs upon a Recipient’s separation from service of his or her own volition and one or more of the following conditions occurs without the Recipient’s consent on or after a Change of Control:

(a) There is a material diminution in the Recipient’s base compensation, compared to his or her rate of base compensation on the date of the Change of Control.

(b) There is a material diminution in the Recipient’s authority, duties or responsibilities.

(c) There is a material diminution in the authority, duties or responsibilities of the Recipient’s supervisor, such as a requirement that the Recipient (or his or her supervisor) report to a corporate officer or employee instead of reporting directly to the board of directors.

(d) There is a material diminution in the budget over which the Recipient retains authority.

(e) There is a material change in the geographic location at which the Recipient must perform his or her service, including, for example the assignment of the Recipient to a regular workplace that is more than 50 miles from his or her regular workplace on the date of the Change of Control.

The Recipient must notify the Company of the existence of one or more adverse conditions specified in clauses (a) through (e) above within 90 days of the initial existence of the adverse condition. The notice must be provided in writing to the Company or its successor, attention: Vice President, Human Resources. The notice may be provided by personal delivery or it may be sent by email, inter-office mail, regular mail (whether or not certified), fax, or any similar method. The Company's Vice President, Human Resources, or his/her delegate shall acknowledge receipt of the notice within 5 business days; the acknowledgement shall be sent to the Recipient by certified mail. Notwithstanding the foregoing provisions of this definition, if the Company remedies the adverse condition within 30 days of being notified of the adverse condition, no Voluntary Termination with Cause shall occur.

Terms

1. Conditional Grant of RSUs. Subject to the provisions of this Agreement and the provisions of the Plan and Award Notice, the Company shall conditionally grant to the Recipient, pursuant to the Plan, a right to receive the Target Amount of RSUs set forth in the Recipient's Award Notice. Such Target Amount shall be adjusted to a Final Amount at the end of the Performance Period based upon the results of the Performance Measures, as determined by the Committee. Notwithstanding the foregoing, the Target Amount shall be adjusted to a Final Amount of RSUs at the conclusion of the Performance Period solely for each Recipient who remains employed or is deemed to be employed on account of Retirement as of the last day of the Performance Period. The award of the Final Amount shall give the Recipient the right, upon vesting, to receive an amount of cash equal to the Fair Market Value of an equal number of shares of $0.625 par value common stock of the Company ("Stock") to that of the number of RSUs comprising the Final Amount.

2. Vesting and Payment of Cash. Subject to the provisions of section 3, the Payout Amounts shall be payable in increments strictly in accordance with the following schedule:

(a) The entitlement to receive an amount of cash equal to the Fair Market Value of the number of shares of Stock pursuant to the RSUs comprising the Final Amount shall vest fifty percent (50%) and become payable as of the first day following the close of the Performance Period, provided that the Recipient remains employed as an Eligible Person on such date. Except as otherwise provided herein, such cash, subject to applicable withholding, shall be paid by the Company to the Recipient within sixty (60) days of such vesting date.

(b) The entitlement to receive the remaining fifty percent (50%) of an amount in cash equal to the Fair Market Value of number of the shares of Stock pursuant to the RSUs comprising the Final Amount shall vest and become payable as of the first anniversary of the first day following the close of the Performance Period, provided that the Recipient remains employed as an Eligible Person on such applicable vesting date. Except as otherwise provided herein, such cash, subject to applicable withholding, shall be paid by the Company to the Recipient within sixty (60) days of such vesting date.

3. Termination of Employment, Death, or Disability prior to the end of the Performance Period. Except as set forth below, a cessation of employment with the Company prior to the end of the Performance Period will result in the Target Amount being forfeited for all purposes.

(a) If the Recipient dies while employed by the Company regardless whether Recipient has accepted the Conditional Grant, or if the Recipient is no longer employed by the Company by reason of Disability (as defined in this Agreement), during the Performance Period, the Recipient shall be entitled to an amount equal to the Target Amount of RSUs and shall become 100% vested in such Target Amount. Payment shall be made as soon as administratively practicable, but in no event (i) in the case of death, shall the payment occur later than the last day of the calendar year following the calendar year in which such death occurs or (ii) in the case of cessation of employment by reason of Disability, shall the payment occur later than thirty (30) days following the date upon which the Recipient is Disabled and is no longer employed by the Company. If clause (ii) is applicable and the payment period spans two consecutive calendar years, payment shall be made in the second calendar year of such consecutive calendar years. Such payment shall be made to the Recipient's designated beneficiary, legal representatives, heirs, or legatees, as applicable. Each Recipient may designate a beneficiary on a form approved by the Committee.

(b) If the Recipient leaves the employment of the Company by reason of Retirement after the first three (3) months of the Performance Period (and not before) and prior to the end of the Performance Period, any Final Amounts not previously vested shall continue to vest following the Recipient's termination of employment by reason of Retirement as if the Recipient remained an Eligible Person in the employ of the Company until the vesting dates set forth in section 2 above, provided that such Recipient shall be entitled to continue vesting only if such Recipient satisfies the Retirement Conditions set forth in section 6 below (except in the case of death) and only with respect to the specified percentage of such unvested Final Amounts set forth in Exhibit "A" for a certain combination of age and Years of Service attained by the Recipient as of the Recipient's Retirement under the Matrix set forth in Exhibit "A". An amount of cash equal to the Fair Market Value of an equal number of shares of Stock that vests pursuant to this section 3(b) and subject to applicable withholding, shall be paid by the Company to the Recipient who is retired, within sixty (60) days of such vesting date.

4. Termination of Employment, Retirement, Death or Disability after the end of the Performance Period. Except as set forth below, each Conditional Grant shall be subject to the condition that the Recipient has remained an Eligible Person from the award of the Conditional Grant of RSUs until the applicable vesting date as follows:

(a) If the Recipient voluntarily leaves the employment of the Company (other than for reason of Retirement), or if the employment of the Recipient is terminated by the Company for any reason or no reason, any Final Amounts not previously vested shall thereafter be void and forfeited for all purposes.

(b) A Recipient shall become 100% vested in all Final Amounts on the date the Recipient dies while employed by the Company regardless whether Recipient has accepted the Conditional Grant (or while continuing to vest pursuant to section 4(c) below), or on the date the Recipient is no longer employed by the Company by reason of Disability. Payment shall be made as soon as administratively practicable, but in no event (i) in the case of death, shall the payment occur later than the last day of the calendar year following the calendar year in which such death occurs or (ii) in the case of cessation of employment by reason of Disability, shall the payment occur later than thirty (30) days following the date upon which the Recipient is Disabled and is no longer employed by the Company. If clause (ii) is applicable and the payment period spans two consecutive calendar years, payment shall be made in the second calendar year of such consecutive calendar years. Such payment shall be made to the Recipient's designated beneficiary, legal representatives, heirs, or legatees, as applicable. Each Recipient may designate a beneficiary on a form approved by the Committee.

(c) If the Recipient leaves the employment of the Company by reason of Retirement after the end of the Performance Period, any Final Amounts not previously vested shall continue to vest following the Recipient's termination of employment by reason of Retirement after the end of the Performance Period as if the Recipient remained an Eligible Person in the employ of the Company until the vesting date set forth in section 2(b) above, provided that such Recipient shall be entitled to continue vesting only if such Recipient satisfies the Retirement Conditions set forth in section 6 below (except in the case of death) and only with respect to the specified percentage of such unvested Final Amounts set forth in Exhibit "A" for a certain combination of age and Years of Service attained by the Recipient as of the Recipient's Retirement under the Matrix set forth in Exhibit "A". An amount of cash equal to the Fair Market Value of an equal number of shares of Stock that vests pursuant to this section 4(c) and subject to applicable withholding, shall be paid by the Company to the Recipient who is retired, within sixty (60) days of such vesting date.

5. Change of Control.

(a) Pursuant to Section 13.1(c)(iii) and (d) of the Plan, the following provisions of this section 5 of the Agreement shall supersede Sections 13.1(a), (b) and (c) of the Plan. Without any further action by the Committee or the Board, in the event of the Recipient's Involuntary Termination or Voluntary Termination with Cause which occurs (i) on or after a Change of Control and (ii) prior to the end of the Performance Period, the Recipient shall become 100% vested as of the date of such Involuntary Termination or Voluntary Termination with Cause in the number of RSUs determined by applying the multiple of 1.00 to the Target Amount. Subject to section 12(b) of this Agreement, payment shall occur within thirty (30) days of the date of such Involuntary Termination or Voluntary Termination with Cause, subject to required tax withholding.

(b) In the event of a Recipient's Involuntary Termination or Voluntary Termination with Cause occurring on or after a Change of Control which occurs after the end of the Performance Period, the Recipient shall become 100% vested in the Final Amount of RSUs as of the date of such Involuntary Termination or Voluntary Termination with Cause. Subject to section 12(b) of this Agreement, payment shall occur within thirty (30) days of the date of such Involuntary Termination or Voluntary Termination with Cause, subject to required tax withholding.

(c) In the event of a Change of Control following the Recipient's termination of employment by reason of Retirement, after the first three (3) months of the Performance Period and ending on the last day of the Vesting Period, the Recipient, shall become 100% vested in the unvested Final Amount of RSUs as of the date of the Change of Control. Subject to section 12(b) of this Agreement, payment shall occur within thirty (30) days of a 409A Change of Control provided that if no 409A Change of Control occurs during the Performance Period, nor during the period of continued vesting as set forth in section 3(b) and 4(c) of this Agreement, then the Final Amount shall be paid by the Company to the Recipient who is retired, within sixty (60) days of the vesting dates (in the applicable percentage amounts) set forth in section 2 of this Agreement, subject to required tax withholding. In the event of a Change of Control prior to the Recipient's termination of employment by reason of Retirement and after the first three (3) months of the Performance Period and ending on the last day of the Vesting Period, the Recipient shall become 100% vested in the unvested Final Amount of RSUs as of the date that the Recipient terminates employment by reason of Retirement. For the purpose of vesting as set forth in the prior sentence, a Recipient's Involuntary Termination or Voluntary Termination with Cause after a Change of Control shall be deemed a termination by reason of Retirement. Subject to section 12(b) of this Agreement, if the Recipient terminates employment by reason of Retirement after a Change of Control, the Recipient shall receive payment with respect to 100% of such Final Amount within sixty (60) days of the vesting dates (in the applicable percentage amounts) as set forth in section 2 of this Agreement, subject to required tax withholding.

6. Conditions to Post-Retirement Vesting. If the Recipient has attained age 55 and a certain combination of age and Years of Service set forth in the Matrix in Exhibit "A" attached hereto and terminates employment with the Company and the Affiliates by reason of Retirement after the first three (3) months of the Performance Period, it is agreed by the Company and the Recipient that:

(a) subject to the provisions of this section 6(a) and sections 6(b) and 6(c), such Recipient shall continue to vest in the specified percentage of the unvested Final Amount of RSUs set forth in Exhibit "A", for the combination of age and Years of Service attained by such Recipient as of his or her Retirement under the Matrix set forth in Exhibit "A", following the date of his or her termination by reason of Retirement as if the Recipient continued in employment as an Eligible Person provided that the Grant Date of the unvested RSUs is prior to such termination date in an amount of time which allows the Recipient to provide the written notice as follows and the Recipient has provided advance written notice not before three (3) months following the Grant Date and not less than the number of months prior to such termination date as set forth in the Schedule below to Apache Corporation's Vice President, Human Resources, or his or her delegate, and to his or her direct manager, regarding the Recipient's intent to terminate employment for reason of Retirement; provided, however, a Recipient who is at least age 55 and attained the necessary combination of age and Years of Service under the Matrix set forth in Exhibit "A" for Retirement need not provide such advance written notice of his or her intent to terminate employment by reason of Retirement if the Company elects to require such Recipient to, or (as part of a reduction in force or otherwise in writing in exchange for a written release) offers such Recipient the opportunity to, terminate employment with the Company by reason of Retirement:

Age	Advance Written Notice
65 or older	3 months
between (and including) 55 and 64	6 months

; and it is further agreed that

(b) in consideration for the continued vesting treatment afforded to the Recipient under section 6(a), Recipient shall, after Retirement and during the period commencing on the first day following the first three (3) months of the Performance Period and ending on the last day of the

Vesting Period (the "Continued Vesting Period"), refrain from becoming employed by, or consulting with, or becoming substantially involved in the business of, any business that competes with the Company or its Affiliate in the business of exploration or production of oil or natural gas wherever from time to time conducted throughout the world (a "Competitive Business") and Recipient shall provide to the Company, upon Company's request, (x) a written certification, in a form provided by or satisfactory to the Company, as to Recipient's compliance with the forgoing conditions and/or (y) his/her U.S. Individual Income Tax Return for any return filed by the Recipient which relates to any time during the Continued Vesting Period to allow the Company to verify that Recipient has complied with the foregoing conditions; provided, that the Recipient may purchase and hold for investment purposes less than five percent (5%) of the shares of any Competitive Business whose shares are regularly traded on a national securities exchange or inter-dealer quotation system, and provided further, that the Recipient may provide services solely as a director of any Competitive Business whose shares are regularly traded on a national securities exchange or inter-dealer quotation system if, during the Continued Vesting Period, (i) the Recipient only attends board and board committee meetings, votes on recommendations of management, and discharges his/her fiduciary obligations under the law and (ii) the Recipient is not involved in, and does not advise or consult on, the marketing, government relations, customer relations, or the day-to-day management, supervision, or operations of such Competitive Business; and it is further agreed that

(c) in consideration for the continued vesting treatment afforded to the Recipient under section 6(a), Recipient shall, during the Continued Vesting Period, refrain from making, or causing or assisting any other person to make, any oral or written communication to any third party about the Company, any Affiliate and/or any of the employees, officers or directors of the Company or any Affiliate which impugns or attacks, or is otherwise critical of, the reputation, business or character of such entity or person; or that discloses private or confidential information about their business affairs; or that constitutes an intrusion into their seclusion or private lives; or that gives rise to unreasonable publicity about their private lives; or that places them in a false light before the public; or that constitutes a misappropriation of their name or likeness.

Notwithstanding the foregoing provisions of this section 6 of the Agreement, (i) in the event that the Recipient fails to satisfy any of the conditions set forth in sections 6(a), (b) and (c) above, the Recipient shall not be entitled to vest in the specified percentage under the Matrix set forth in Exhibit "A" in any unvested Final Amount of RSUs after the date of Retirement and the unvested Final Amount of RSUs subject to this Agreement shall be forfeited and (ii) the Recipient shall not have any right to continue to vest upon Retirement in any future awards granted under the Plan once the Recipient provides the notice of Retirement as set forth in section 6(a) above.

7. Prohibited Activity. In consideration for this Grant and except as permitted by Section 6(b) above, the Recipient agrees not to engage in any "Prohibited Activity" while employed by the Company or within three years after the date of the Recipient's termination of employment. A "Prohibited Activity" will be deemed to have occurred, as determined by the Committee in its sole and absolute discretion, if the Recipient (i) divulges any non-public, confidential or proprietary information of the Company, but excluding information that (a) becomes generally available to the public other than as a result of the Recipient's public use, disclosure, or fault, or (b) becomes available to the Recipient on a non-confidential basis after the Recipient's employment termination date from a source other than the Company prior to the public use or disclosure by the Recipient, provided that such source is not bound by a confidentiality agreement or otherwise prohibited from

transmitting the information by contractual, legal or fiduciary obligation, (ii) directly or indirectly, consults with or becomes affiliated with, participate or engage in, or becomes employed by any business that is competitive with the Company, wherever from time to time conducted throughout the world, including situations where the Recipient solicits or participates in or assists in any way in the solicitation or recruitment, directly or indirectly, of any employees of the Company; or (iii) engages in publishing any oral or written statements about the Company, and/or any of its directors, officers, or employees that are disparaging, slanderous, libelous, or defamatory; or that disclose private or confidential information about their business affairs; or that constitute an intrusion into their seclusion or private lives; or that give rise to unreasonable publicity about their private lives; or that place them in a false light before the public; or that constitute a misappropriation of their name or likeness.

8. Payment and Tax Withholding. Upon receipt of any entitlement to cash under this Agreement and, if applicable, upon the Recipient's attainment of eligibility to terminate employment by reason of Retirement pursuant to section 4(c), the Recipient shall make appropriate arrangements with the Company to provide for the amount of minimum tax and social security withholding, if any, required by law, including without limitation Sections 3102 and 3402 or any successor section(s) of the Internal Revenue Code and applicable state and local income and other tax laws. The payment of a Payout Amount shall be based on the Fair Market Value of the shares of Stock on the applicable date of vesting to which such tax withholding relates. Where appropriate, cash shall be withheld by the Company to satisfy applicable tax withholding requirements rather than paid directly to the Recipient.

9. Non-Transferability of Conditional Grant and Unvested Final Amount. The Conditional Grant and any unvested Final Amount shall not be transferable otherwise than by testamentary will or the laws of descent and distribution, or in accordance with a valid beneficiary designation on a form approved by the Committee, subject to the conditions and exceptions set forth in Section 15.2 of the Plan.

10. No Right to Continued Employment. Neither the RSUs or the cash payment pursuant to a Conditional Grant nor any terms contained in this Agreement shall confer upon the Recipient any express or implied right to be retained in the employment or service of the Company for any period, nor restrict in any way the right of the Company, which right is hereby expressly reserved, to terminate the Recipient's employment or service at any time for any reason or no reason. The Recipient acknowledges and agrees that any right to receive RSUs or cash pursuant to a Conditional Grant is earned only by continuing as an employee of the Company at the will of the Company, or satisfaction of any other applicable terms and conditions contained in the Plan and this Agreement, and not through the act of being hired, being granted the Conditional Grant, or acquiring RSUs or cash pursuant to the Conditional Grant hereunder.

11. The Plan. In consideration for this Conditional Grant, the Recipient agrees to comply with the terms of the Plan and this Agreement. This Agreement is subject to all the terms, provisions and conditions of the Plan, which are incorporated herein by reference, and to such regulations as may from time to time be adopted by the Committee. The Conditional Grant is a Cash-Based Award under Section 10 of the Plan and is subject to the provisions of the Plan governing Performance Awards. Unless defined herein, capitalized terms are used herein as defined in the Plan. In the event of any conflict between the provisions of the Plan and this Agreement, the provisions of the Plan shall control, and this Agreement shall be deemed to be modified accordingly. The Plan and the

prospectus describing the Plan can be found on the Company's HR intranet and the Plan document can be found on Fidelity's website (netbenefits.fidelity.com). A paper copy of the Plan and the prospectus shall be provided to the recipient upon the Recipient's written request to the Company at 2000 Post Oak Blvd., Suite 100, Houston, Texas 77056-4400, Attention: Corporate Secretary.

12. Compliance with Laws and Regulations.

(a) The Conditional Grant and any obligation of the Company to deliver RSUs and cash hereunder shall be subject in all respects to (i) all applicable laws, rules and regulations and (ii) any registration, qualification, approvals or other requirements imposed by any government or regulatory agency or body which the Committee shall, in its discretion, determine to be necessary or applicable.

(b) This Conditional Grant is intended to comply with, or be exempt from, the applicable requirements of Section 409A of the Code and the rules and regulations issued thereunder and shall be administered accordingly. Notwithstanding anything in this Agreement to the contrary, if the RSUs constitute "deferred compensation" under Section 409A of the Code and any RSUs become payable pursuant to the Recipient's termination of employment, settlement of the RSUs shall be delayed for a period of six months after the Recipient's termination of employment if the Recipient is a "specified employee" as defined under Code Section 409A(a)(2)(B)(i) and if required pursuant to Section 409A of the Code. If settlement of the RSUs is delayed, the RSUs shall be settled on the first day of the first calendar month following the end of the six-month delay period. If the Recipient dies during the six-month delay, the RSUs shall be settled and paid to the Recipient's designated beneficiary, legal representatives, heirs or legatees, as applicable, as soon as practicable after the date of death. Notwithstanding any provision to the contrary herein, payments made with respect to this Conditional Grant may only be made in a manner and upon an event permitted by Section 409A of the Code, and all payments to be made upon a termination of employment hereunder may only be made upon a "separation from service," as such term is defined in Section 11.1 of the Plan. Recipient shall not have any right to determine a date of payment of any amount under this Agreement. This Agreement may be amended without the consent of the Recipient in any respect deemed by the Board or the Committee to be necessary in order to preserve compliance with Section 409A of the Code. If the Grant and this Agreement is subject to Section 409A of the Code and the rules and regulations issued thereunder, and, except as set forth in section 5(a), the vesting date shall be the "designated payment date" or "specified date" under Treasury Regulation 1.409A-3(d).

13. Notices. Unless otherwise provided in this Agreement, all notices by the Recipient or the Recipient's assignees shall be addressed to the Administrative Agent, Fidelity, through the Recipient's account at netbenefits.fidelity.com, or such other address as the Company may from time to time specify. All notices to the Recipient shall be addressed to the Recipient at the Recipient's address in the Company's records.

14. Other Plans. The Recipient acknowledges that any income derived from the Conditional Grant shall not affect the Recipient's participation in, or benefits under, any other benefit plan or other contract or arrangement maintained by the Company or any Affiliate.

15. Terms of Employment. The Plan is a discretionary plan. The Recipient hereby acknowledges that neither the Plan nor this Agreement forms part of his terms of employment and nothing in the Plan may be construed as imposing on the Company or any Affiliate a contractual

obligation to offer participation in the Plan to any employee of the Company or any Affiliate. The Company or any Affiliate is under no obligation to make further Grants to any Recipient under the Plan. The Recipient hereby acknowledges that if he ceases to be an employee of the Company or any Affiliate for any reason or no reason, he shall not be entitled by way of compensation for loss of office or otherwise howsoever to any sum.

16. Data Protection. By accepting this Agreement (whether by electronic means or otherwise), the Recipient hereby consents to the holding and processing of personal data provided by him to the Company for all purposes necessary for the operation of the Plan. These include, but are not limited to:

(a) administering and maintaining Recipient records;

(b) providing information to any registrars, brokers or third party administrators of the Plan; and

(c) providing information to future purchasers of the Company or the business in which the Recipient works.

17. Clawback Policy. If required by the Sarbanes-Oxley Act of 2002 and/or by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, each Recipient's Award shall be conditioned on repayment or forfeiture in accordance with applicable law. In addition, the Company's Executive Compensation Clawback Policy is hereby incorporated by reference and shall form a part of this Agreement and each Recipient's Award shall be subject to such Policy. In connection with a material negative accounting restatement by the Company as the result of fraud, intentional misconduct, or gross negligence by the Recipient, Awards and payments in connection with Awards granted under this Agreement may be subject to recovery and Recipient may be required to repay to the Company all or a portion of any Award or payments received in connection with any Award hereunder. In the event that the Company determines to seek recovery with respect to an Award under this Agreement, an affected Recipient may elect to repay the applicable clawback amount in cash or, if shares of Stock received pursuant to an affected Award are still owned by the Recipient, in net after-tax shares of Stock received pursuant to the Award. The date for determination of the value of the applicable compensation to be repaid shall be the vesting date of the affected Award and the amount of any applicable repayment shall be determined based upon the net after-tax amount realized by the Recipient as income on such vesting date, applying the highest marginal tax rate for federal, state and local income taxes.

18. Severability. If any provision of this Agreement is held invalid or unenforceable, the remainder of this Agreement shall nevertheless remain in full force and effect, and if any provision is held invalid or unenforceable with respect to particular circumstances, it shall nevertheless remain in full force and effect in all other circumstances, to the fullest extent permitted by law.

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Apache Corporation
Executive Compensation Clawback Policy

Should the Company's reported financial or operating results be subject to a material negative restatement as the result of fraud, intentional misconduct, or gross negligence of an executive officer, the Company has the right to recover from such executive officer an amount corresponding to any incentive award or portion thereof (including any cash bonus or equity-based award) that the Company determines would not have been granted, vested, or paid had the Company's results as originally reported been equal to the Company's results as subsequently restated. The Company will apply a three-year lookback period from the date of any such material negative restatement. Subject to applicable law, the Company has the right to recover such amount by requiring the executive officer to re-pay such amount to the Company by direct payment to the Company or such other means or combination of means as the Company determines to be appropriate.

If the Company determines to seek a recovery pursuant to this policy, it shall make a written demand for repayment from the executive officer and, if such person does not, within a reasonable period of time following such demand, tender repayment in response to such demand, and the Company determines that he or she is unlikely to do so, the Company may seek a court order against the executive officer for such repayment.

The Company may not seek recovery to the extent it determines (i) that to do so would not be cost effective or (ii) that it would be better for the Company not to do so. In making such determination, the Company shall take into account such considerations as it deems appropriate, including, without limitation, (A) the likelihood of success under governing law versus the cost and effort involved, (B) whether the assertion of a claim may prejudice the interests of the Company, including in any related proceeding or investigation, (C) the passage of time since the occurrence of the act in the event of fraud or intentional illegal conduct, and (D) any pending legal proceeding relating to such fraud or intentional illegal conduct.

This Policy applies to any incentive compensation for years commencing after the adoption of this Policy.

Exhibit “A”

Apache Corporation
Retirement Matrix

	Points (Age at Retirement + Years of Service)																				
Age at Retirement	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
70	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%
69	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%
68	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%
67	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
66	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
65	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
64	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
63	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
62	0%	0%	0%	0%	0%	0%	0%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
61	0%	0%	0%	0%	0%	0%	50%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
60	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
59	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
58	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
57	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
56	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
55	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%

0%
50%
75%
100%

SCHEDULE A

Apache Corporation

Restricted Stock Unit Award Agreement

GRANT NOTICE

Recipient Name:	[Name]
Company:	Apache Corporation
Notice:	A summary of the terms of your grant of Restricted Stock Units (“RSUs”) is set out in this notice (the “Grant Notice”) but subject always to the terms of the Apache Corporation 2016 Omnibus Compensation Plan (the “Plan”) and the Restricted Stock Unit Award Agreement (the “Agreement”). In the event of any inconsistency between the terms of this Grant Notice, the terms of the Plan and the Agreement, the terms of the Plan and the Agreement shall prevail. The Grant is a Cash-Based Award under Section 10 of the Plan and is subject to the provisions of the Plan governing RSUs. You have been awarded a grant of Altus Midstream Company RSUs in accordance with the terms of the Plan and the Agreement. Details of the RSUs which you are entitled to receive is provided to you in this Grant Notice and maintained on your account at netbenefits.fidelity.com.
Type of Award:	Restricted Stock Unit(s)
Restricted Stock Unit:	A Restricted Stock Unit (“RSU”) under this Agreement means the right granted to the Recipient to receive the cash equivalent of one share of Stock (as defined below) for each RSU at the end of the specified Vesting Period.
Stock:	The $0.0001 par value Class A common stock of Altus Midstream Company.
Grant:	A Grant related to ______ Restricted Stock Units.
Grant Date:	[Date]
Conditions:	The Recipient may elect, at the time of the grant, to have his or her RSUs deferred into the Deferred Delivery Plan (the “DDP”) when the RSUs vest, in which case the Recipient will receive the value of

the RSUs in cash at the times specified pursuant to the DDP. For RSUs that are not deferred, once the RSU vests, the Recipient shall be paid the value of his or her RSUs in cash (net of cash withheld for applicable tax withholdings).

Vesting Period: RSUs granted shall vest (i.e., restrictions shall lapse) in accordance with the following schedule (the "Vesting Period"), provided that the Recipient remains employed as an Eligible Person as of such vesting date:

First day of the month following the first anniversary of the Grant Date – 1/3 vested.

Second anniversary of the Grant Date – an additional 1/3 vested.

Third anniversary of the Grant Date – an additional 1/3 vested.

Notwithstanding the foregoing, if the Recipient's termination of employment from the Company and the Affiliates occurs by reason of his or her Retirement, the Recipient shall be deemed to continue to be employed as an Eligible Person for purposes of this Grant and shall continue to vest with respect to a specified percentage of RSUs over the Vesting Period set forth above provided that the Recipient meets the Retirement Conditions set forth in section 5 of the Agreement.

Upon vesting (other than upon death or Disability), the applicable amount of cash, subject to required tax withholding, shall be paid by the Company to the Recipient within thirty (30) days of the vesting date, unless the Recipient had elected to defer such RSUs into the DDP, in which case the applicable amount of cash shall be paid to the DDP on the vesting date and paid out according to the provisions of the DDP.

Vesting is accelerated to 100% upon the Recipient's death or cessation of employment by reason of Disability while an Eligible Person (or, only in the case of death, while treated as an Eligible Person following Retirement as described above) during the Vesting Period. Upon vesting, the applicable amount of cash, subject to required tax withholding, shall be paid by the Company to the Recipient's designated beneficiary, legal representatives, heirs, or legatees, as applicable, in accordance with the terms of the Plan and this Agreement. The Recipient can name a beneficiary on a form approved by the Committee.

Vesting is accelerated to 100% upon the Recipient's Involuntary Termination or Voluntary Termination with Cause occurring on or after a Change of Control that occurs during the Vesting Period. With respect to a Recipient who continues to vest following his or her termination due to Retirement, vesting is accelerated to 100% upon a Change of Control that occurs during the Vesting Period and on or after such termination by reason of Retirement. With respect to a Recipient who terminates employment by reason of Retirement after a Change of Control, vesting is accelerated to 100% upon the Recipient's termination of employment by reason of Retirement. Unless expressly otherwise provided in the Agreement with respect to Retirement and Change of Control, the applicable amount of cash, subject to required tax withholding, shall be paid by the Company to the Recipient within thirty (30) days of the vesting date, unless the Recipient had elected to defer such RSUs into the DDP, in which case the applicable amount of cash shall be paid to the DDP on the vesting date and paid out according to the provisions of the DDP.

Withholding: The Company and the Recipient will comply with all federal and state laws and regulations respecting the required withholding, deposit, and payment of any income, employment, or other taxes relating to the Grant.

Dividends: The Company will credit each of the Recipient's RSUs with Dividend Equivalents. For purposes of this Grant, a Dividend Equivalent is an amount equal to the cash dividend payable per share of Stock multiplied by the number of shares of Stock then underlying such outstanding RSUs. Such amount will be credited to a book entry account on Recipient's behalf at the time Altus Midstream Company pays any cash dividend on its Stock. The Recipient's rights in any such Dividend Equivalents will vest at the same time as, and only to the extent that, the underlying RSUs vest and will be distributed at the same time in cash (subject to applicable withholdings), and only to the extent, as the related RSUs are to be distributed to the Recipient as provided in the Agreement and to which such Dividend Equivalents apply.

Acceptance: Please complete the on-line grant acceptance as promptly as possible to accept or reject your Grant. You can access this through your account at netbenefits.fidelity.com. By accepting your Grant, you will have agreed to the terms and conditions set forth in the Agreement, including, but not limited to, the non-compete and non-disparagement provisions set forth in sections 5 and 6 of the Agreement, and the terms and conditions of the Plan. If you do not accept your Grant, your RSUs will not vest and you will be unable to receive your RSUs.

Apache Corporation

Restricted Stock Unit Award Agreement

This Restricted Stock Unit Award Agreement (the "Agreement") relating to a grant of Restricted Stock Units is a Cash-Based Award under Section 10 of the Apache Corporation 2016 Omnibus Compensation Plan (the "Plan") (the "Grant"), dated as of the Grant Date set forth in the Notice of Award under the Agreement attached as Schedule A hereto (the "Grant Notice"), is made between Apache Corporation (together with its Affiliates, the "Company") and each Recipient. The Grant Notice is included in and made part of this Agreement.

In this Agreement and each Grant Notice, unless the context otherwise requires, words and expressions shall have the meanings given to them in the Plan except as herein defined.

Definitions

"409A Change of Control" means a Change of Control that constitutes, with respect to Apache Corporation, a "change in the ownership or effective control of the corporation, or in the ownership of a substantial portion of the assets of the corporation" within the meaning of Section 409A(a)(2)(A)(v) of the Internal Revenue Code of 1986, as amended (the "Code") and Treasury Regulations Section 1.409A-3(i)(5).

"Disability" or "Disabled" means the Recipient is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. Recipient agrees that a final and binding determination of "Disability" will be made by the Company's representative under the Company's group long-term disability plan or any successor thereto or, if there is no such representative and there is a dispute as to the determination of "Disability," it will be decided in a court of law in Harris County, Texas.

"Grant Notice" means the separate notice given to each Recipient specifying the number of RSUs granted to the Recipient (the "Grant").

"Fair Market Value" means the fair market value of a share of the Stock as determined by the Committee by the reasonable application of such reasonable valuation method, consistently applied, as the Committee deems appropriate; provided, however, that if the Committee has not made such determination, such fair market value shall be the per share closing price of the Stock as reported on NASDAQ or on such other exchange or electronic trading system as, on the date in question, reports the largest number of traded shares of stock; provided further, however, that if there are no Stock transactions on such date, the Fair Market Value shall be determined as of the immediately preceding date on which there were Stock transactions.

"Involuntary Termination" means the termination of employment of the Recipient by the Company or its successor for any reason on or after a Change of Control; provided, that the termination does not result from an act of the Recipient that (i) constitutes common-law fraud, a felony, or a gross malfeasance of duty and (ii) is materially detrimental to the best interests of the Company or its successor.

"Payout Amount" means the vested portion of the Grant expressed as an amount of cash equal to the Fair Market Value of the shares of Stock underlying the RSUs and related Dividend Equivalents.

"Recipient" means an Eligible Person designated by the Committee at the Grant Date to receive one or more Grants under the Plan.

"Retirement" means, with respect to a Recipient and for purposes of this Agreement, the date the Recipient terminates employment with the Company after attaining (i) age 55 and (ii) a certain combination of age and Years of Service set forth in the Matrix in Exhibit "A" attached hereto.

"Years of Service" means the total number of months from the Recipient's date of hire by the Company to the date of termination of employment, plus any months required to be recognized under an appropriate acquisition agreement, divided by 12.

"Voluntary Termination with Cause" occurs upon a Recipient's separation from service of his or her own volition and one or more of the following conditions occurs without the Recipient's consent on or after a Change of Control:

(a) There is a material diminution in the Recipient's base compensation, compared to his or her rate of base compensation on the date of the Change of Control.

(b) There is a material diminution in the Recipient's authority, duties or responsibilities.

(c) There is a material diminution in the authority, duties or responsibilities of the Recipient's supervisor, such as a requirement that the Recipient (or his or her supervisor) report to a corporate officer or employee instead of reporting directly to the board of directors.

(d) There is a material diminution in the budget over which the Recipient retains authority.

(e) There is a material change in the geographic location at which the Recipient must perform his or her service, including, for example the assignment of the Recipient to a regular workplace that is more than 50 miles from his or her regular workplace on the date of the Change of Control.

The Recipient must notify the Company of the existence of one or more adverse conditions specified in clauses (a) through (e) above within 90 days of the initial existence of the adverse condition. The notice must be provided in writing to the Company or its successor, attention: Vice President, Human Resources. The notice may be provided by personal delivery or it may be sent by email, inter-office mail, regular mail (whether or not certified), fax, or any similar method. The Company's Vice President, Human Resources, or his/her delegate shall acknowledge receipt of the notice within 5 business days; the acknowledgement shall be sent to the Recipient by certified mail. Notwithstanding the foregoing provisions of this definition, if the Company remedies the adverse condition within 30 days of being notified of the adverse condition, no Voluntary Termination with Cause shall occur.

Terms

1. Grant of RSUs. Subject to the provisions of this Agreement and the provisions of the Plan and Grant Notice, the Company shall grant to the Recipient, pursuant to the Plan, a right to receive the number of RSUs set forth in the Recipient's Grant Notice. The Grant shall give the Recipient the right, upon vesting, to receive an amount in cash equal to the Fair Market Value of an equal number of shares of $0.0001 par value Class A common stock of Altus Midstream Company ("Stock") to that of the number of RSUs set forth in the Recipient's Grant Notice. At the time of the Grant, the Recipient may elect to defer all or any portion of the RSUs in the Deferred Delivery Plan (the "DDP").

2. Vesting and Payment of Cash. Subject to the provisions of sections 3 and 4 of this Agreement, the entitlement to receive an amount of cash equal to the Fair Market Value of the number of shares of Stock pursuant to the RSUs comprising the Grant Amount shall vest in accordance with the schedule set forth in the Grant Notice (the "Vesting Period"); provided that the Recipient remains employed as an Eligible Person on such applicable vesting dates. Unless the Recipient elected to defer the RSU into the DDP, such cash, subject to applicable withholding, shall be paid by the Company to the Recipient within thirty (30) days of the vesting date (other than upon death or Disability). To the extent that the Recipient elected to defer the RSUs into the DDP and sections 3 and 4 do not apply, when the RSUs vest, an amount of cash equal to the Fair Market Value of the number of shares of Stock that have vested pursuant to the RSUs comprising the Grant Amount shall be paid to the DDP and paid thereafter to the Recipient as specified under the terms of the DDP.

3. Termination of Employment, Retirement, Death, or Disability. Except as set forth below in this section 3 and in section 4 of this Agreement, each Grant shall be subject to the condition that the Recipient has remained an Eligible Person from the award of the Grant of RSUs until the applicable vesting date as follows:

(a) If the Recipient voluntarily leaves the employment of the Company (other than for reason of Retirement), or if the employment of the Recipient is terminated by the Company for any reason or no reason, any RSUs granted to the Recipient pursuant to the Grant Notice not previously vested shall thereafter be void and forfeited for all purposes.

(b) If the Recipient leaves the employment of the Company by reason of Retirement, the RSUs granted to the Recipient pursuant to the Grant Notice not previously vested shall continue to vest following the Recipient's termination of employment by reason of Retirement as if the Recipient remained an Eligible Person in the employ of the Company, provided that such Recipient shall be entitled to continue vesting only if such Recipient satisfies the Retirement Conditions set forth in section 5 below (except in the case of death) and only with respect to the specified percentage of such unvested RSUs set forth in Exhibit "A" for a certain combination of age and Years of Service attained by the Recipient as of the Recipient's Retirement under the Matrix set forth in Exhibit "A".

(c) A Recipient shall become 100% vested in all RSUs under the Grant Notice on the date the Recipient dies while employed by the Company regardless whether Recipient has accepted the Grant, or on the date the Recipient is no longer employed by the Company by reason of Disability, or, only in the case of death, while continuing to vest pursuant to section 3(b) of this Agreement. Payment shall be made as soon as administratively practicable, but in no event (i) in the case of death, shall the payment occur later than the last day of the calendar year following the calendar year in which such death occurs or (ii) in the case of cessation of employment by reason of Disability, shall the payment occur later than thirty (30) days following the date the Recipient is determined to be Disabled and is no longer employed by the Company. If clause (ii) is applicable and the period from the date on which the Recipient is determined to be Disabled and is no longer employed by the Company to the date under clause (ii) spans two consecutive calendar years, payment shall be made in the second calendar year of such consecutive calendar years. Such payment shall be made to the Recipient's designated beneficiary, legal representatives, heirs, or legatees, as applicable. Each Recipient may designate a beneficiary on a form approved by the Committee.

4. Change of Control. Pursuant to Section 13.1(c)(iii) and (d) of the Plan, the following provisions of this section 4 of the Agreement shall supersede Sections 13.1(a), (b) and (c) of the Plan. Without any further action by the Committee or the Board, in the event of a Recipient's Involuntary Termination or Voluntary Termination with Cause occurring on or after a Change of Control during the Vesting Period, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date of his or her Involuntary Termination or Voluntary Termination with Cause. Subject to section 11(b) of this Agreement, payment shall occur within thirty (30) days following the date of such Involuntary Termination or Voluntary Termination with Cause, subject to required tax withholding. Further, in the event of a Change of Control following the Recipient's termination of employment by reason of Retirement while the Recipient is continuing to vest in the RSUs pursuant to section 3(b) of this Agreement, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date of the Change of Control (including those excluded by the specified percentage set forth in Exhibit "A"). Subject to section 11(b) of this Agreement, the Recipient, if the Recipient terminates employment on account of Retirement prior to the occurrence of a Change of Control, shall receive payment with respect to 100% of the fully vested RSUs within thirty (30) days of the date of a 409A Change of Control, or if the Change of Control is not a 409A Change of Control, on the remaining vesting dates during the Vesting Period in the amount of 1/3 (on each of the remaining vesting dates) of the RSUs awarded as of the Grant Date, subject to required tax withholding. Further still, in the event of a Change of Control prior to the Recipient's termination of employment by reason of Retirement during the Vesting Period, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date the Recipient terminates employment by reason of Retirement (including those excluded by the specified percentage set forth in Exhibit "A"). For the purpose of vesting as set forth in the prior sentence, a Recipient's Involuntary Termination or Voluntary Termination with Cause after a Change of Control shall be deemed a termination by reason of Retirement. Subject to section 11(b)

of this Agreement, the Recipient, who terminates employment by reason of Retirement after a Change of Control, shall receive payment with respect to 100% of the fully vested RSUs on the remaining vesting dates during the Vesting Period in the amount of 1/3 (on each of the remaining vesting dates) of the RSUs awarded as of the Grant Date, subject to required tax withholding.

5. Conditions to Post-Retirement Vesting. If the Recipient has attained age 55 and a certain combination of age and Years of Service set forth in the Matrix in Exhibit "A" attached hereto and terminates employment with the Company and the Affiliates by reason of Retirement, it is agreed by the Company and the Recipient that:

(a) subject to the provisions of this section 5(a) and sections 5(b) and 5(c), such Recipient shall continue to vest in the specified percentage of unvested RSUs set forth in Exhibit "A", for the combination of age and Years of Service attained by such Recipient as of his or her Retirement under the Matrix set forth in Exhibit "A", following the date of his or her termination by reason of Retirement as if the Recipient continued in employment as an Eligible Person provided that the Grant Date of the unvested RSUs is prior to such termination date in an amount of time which allows the Recipient to provide the written notice as follows and the Recipient has provided advance written notice not before three (3) months following the Grant Date and not less than the number of months prior to such termination date as set forth in the Schedule below to Apache Corporation's Vice President, Human Resources, or his or her delegate, and to his or her direct manager, regarding the Recipient's intent to terminate employment for reason of Retirement; provided, however, a Recipient who is at least age 55 and attained the necessary combination of age and Years of Service under the Matrix set forth in Exhibit "A" for Retirement need not provide such advance written notice of his or her intent to terminate employment by reason of Retirement if the Company elects to require such Recipient to, or (as part of a reduction in force or otherwise in writing in exchange for a written release) offers such Recipient the opportunity to, terminate employment with the Company by reason of Retirement:

Age	Advance Written Notice
65 or older	3 months
between (and including) 55 and 64	6 months

; and it is further agreed that

(b) in consideration for the continued vesting treatment afforded to the Recipient under section 5(a), Recipient shall, during the continuing Vesting Period after Retirement (the "Continued Vesting Period"), refrain from becoming employed by, or consulting with, or becoming substantially involved in the business of, any business that competes with the Company or its Affiliate in the business of exploration or production of oil or natural gas wherever from time to time conducted throughout the world (a "Competitive Business") and Recipient shall provide to the Company, upon Company's request, (x) a written certification, in a form provided by or satisfactory to the Company, as to Recipient's compliance with the forgoing conditions and/or (y) his/her U.S. Individual Income Tax Return for any return filed by the Recipient which relates to any time during the Continued Vesting Period to allow the Company to verify that Recipient has complied with the foregoing conditions; provided, that the Recipient may purchase and hold for investment purposes less than five percent (5%) of the shares of any Competitive Business whose shares are regularly traded on a national securities exchange or inter-dealer quotation system, and provided further, that the Recipient may provide services solely as a director of any Competitive Business whose shares are regularly traded on a national securities exchange or inter-dealer quotation system if, during the Continued Vesting Period, (i) the Recipient only attends board and board committee meetings, votes on recommendations of management, and discharges his/her fiduciary obligations under the law and (ii) the Recipient is not involved in, and does not advise or consult on, the marketing, government relations, customer relations, or the day-to-day management, supervision, or operations of such Competitive Business; and it is further agreed that

(c) in consideration for the continued vesting treatment afforded to the Recipient under section 5(a), Recipient shall, during the Continued Vesting Period, refrain from making, or causing or assisting any other person to make, any oral or written communication to any third party about the Company, any Affiliate and/or any of the employees, officers or directors of the Company or any Affiliate which impugns or attacks, or is otherwise critical of, the reputation, business or character of such entity or person; or that discloses private or confidential information about their business affairs; or that constitutes an intrusion into their seclusion or private lives; or that gives rise to unreasonable publicity about their private lives; or that places them in a false light before the public; or that constitutes a misappropriation of their name or likeness.

Notwithstanding the foregoing provisions of this section 5 of the Agreement, (i) in the event that the Recipient fails to satisfy any of the conditions set forth in sections 5(a), (b) and (c) above, the Recipient shall not be entitled to vest in any unvested RSUs after the date of Retirement and the unvested RSUs subject to this Agreement shall be forfeited and (ii) the Recipient shall not have any right to continue to vest upon Retirement in any future awards granted under the Plan once the Recipient provides the notice of Retirement as set forth in section 5(a) above.

6. Prohibited Activity. In consideration for this Grant and except as permitted under section 5(b) above, the Recipient agrees not to engage in any "Prohibited Activity" while employed by the Company or within three years after the date of the Recipient's termination of employment. A "Prohibited Activity" will be deemed to have occurred, as determined by the Committee in its sole and absolute discretion, if the Recipient (i) divulges any non-public, confidential or proprietary information of the Company, but excluding information that (a) becomes generally available to the public other than as a result of the Recipient's public use, disclosure, or fault, or (b) becomes available to the Recipient on a non-confidential basis after the Recipient's employment termination date from a source other than the Company prior to the public use or disclosure by the Recipient, provided that such source is not bound by a confidentiality agreement or otherwise prohibited from transmitting the information by contractual, legal or fiduciary obligation; (ii) directly or indirectly, consults with or becomes affiliated with, participate or engage in, or becomes employed by any business that is competitive with the Company, wherever from time to time conducted throughout the world, including situations where the Recipient solicits or participates in or assists in any way in the solicitation or recruitment, directly or indirectly, of any employees of the Company; or (iii) engages in publishing any oral or written statements about the Company, and/or any of its directors, officers, or employees that are disparaging, slanderous, libelous, or defamatory; or that disclose

private or confidential information about their business affairs; or that constitute an intrusion into their seclusion or private lives; or that give rise to unreasonable publicity about their private lives; or that place them in a false light before the public; or that constitute a misappropriation of their name or likeness.

7. Payment and Tax Withholding. Upon receipt of any entitlement to cash under this Agreement and, if applicable, upon the Recipient's attainment of eligibility to terminate employment by reason of Retirement pursuant to section 3(b), the Recipient shall make appropriate arrangements with the Company to provide for the amount of minimum tax and social security withholding, if any, required by law, including without limitation Sections 3102 and 3402 or any successor section(s) of the Internal Revenue Code and applicable state and local income and other tax laws. The payment of a Payout Amount shall be based on the Fair Market Value of the shares of Stock on the applicable date of vesting to which such tax withholding relates. Where appropriate, cash shall be withheld by the Company to satisfy applicable tax withholding requirements rather than paid directly to the Recipient.

8. Non-Transferability of Grant. A Grant shall not be transferable otherwise than by testamentary will or the laws of descent and distribution, or in accordance with a valid beneficiary designation on a form approved by the Committee, subject to the conditions and exceptions set forth in Section 15.2 of the Plan.

9. No Right to Continued Employment. Neither the RSUs or the cash payment pursuant to a Grant nor any terms contained in this Agreement shall confer upon the Recipient any express or implied right to be retained in the employment or service of the Company for any period, nor restrict in any way the right of the Company, which right is hereby expressly reserved, to terminate the Recipient's employment or service at any time for any reason or no reason. The Recipient acknowledges and agrees that any right to receive RSUs or cash pursuant to a Grant is earned only by continuing as an employee of the Company at the will of the Company, or satisfaction of any other applicable terms and conditions contained in the Plan and this Agreement, and not through the act of being hired, being granted the Grant, or acquiring RSUs or cash pursuant to the Grant hereunder.

10. The Plan. In consideration for this Grant, the Recipient agrees to comply with the terms of the Plan and this Agreement. This Agreement is subject to all the terms, provisions and conditions of the Plan, which are incorporated herein by reference, and to such regulations as may from time to time be adopted by the Committee. The Grant is a Cash-Based Award under Section 10 of the Plan and is subject to the provisions of the Plan governing RSUs. Unless defined herein, capitalized terms are used herein as defined in the Plan. In the event of any conflict between the provisions of the Plan and this Agreement, the provisions of the Plan shall control, and this Agreement shall be deemed to be modified accordingly. The Plan and the prospectus describing the Plan can be found on the Company's HR intranet and the Plan document can be found on Fidelity's website (netbenefits.fidelity.com). A paper copy of the Plan and the prospectus shall be provided to the recipient upon the Recipient's written request to the Company at 2000 Post Oak Blvd., Suite 100, Houston, Texas 77056-4400, Attention: Corporate Secretary.

11. Compliance with Laws and Regulations.

(a) The Grant and any obligation of the Company to deliver RSUs and cash hereunder shall be subject in all respects to (i) all applicable laws, rules and regulations and (ii) any registration, qualification, approvals or other requirements imposed by any government or regulatory agency or body which the Committee shall, in its discretion, determine to be necessary or applicable.

(b) This Grant is intended to comply with, or be exempt from, the applicable requirements of Section 409A of the Code and the rules and regulations issued thereunder and shall be administered accordingly. Notwithstanding anything in this Agreement to the contrary, if the RSUs constitute "deferred compensation" under Section 409A of the Code and any RSUs become payable pursuant to the Recipient's termination of employment, settlement of the RSUs shall be delayed for a period of six months after the Recipient's termination of employment if the Recipient is a "specified employee" as defined under Code Section 409A(a)(2)(B)(i) and if required pursuant to Section 409A of the Code. If settlement of the RSU is delayed, the RSUs shall be settled on the first day of the first calendar month following the end of the six-month delay period. If the Recipient dies during the six-month delay, the RSUs shall be settled and paid to the Recipient's designated beneficiary, legal representatives, heirs or legatees, as applicable, as soon as practicable after the date of death. Notwithstanding any provisions to the contrary herein, payments made with respect to this Grant may only be made in a manner and upon an event permitted by Section 409A of the Code, and all payments to be made upon a termination of employment hereunder may only be made upon a "separation from service", as such term is defined in Section 11.1 of the Plan. Recipient shall not have any right to determine a date of payment of any amount under this Agreement. This Agreement may be amended without the consent of the Recipient in any respect deemed by the Board or the Committee to be necessary in order to preserve compliance with Section 409A of the Code. If the Grant and this Agreement is subject to Section 409A of the Code and the rules and regulations issued thereunder, then the vesting date shall be the "designated payment date" or "specified date" under Treasury Regulation 1.409A-3(d).

12. Notices. Unless otherwise provided in this Agreement, all notices by the Recipient or the Recipient's assignees shall be addressed to the Administrative Agent, Fidelity, through the Recipient's account at netbenefits.fidelity.com, or such other address as the Company may from time to time specify. All notices to the Recipient shall be addressed to the Recipient at the Recipient's address in the Company's records.

13. Other Plans. The Recipient acknowledges that any income derived from the Grant shall not affect the Recipient's participation in, or benefits under, any other benefit plan or other contract or arrangement maintained by the Company or any Affiliate.

14. Terms of Employment. The Plan is a discretionary plan. The Recipient hereby acknowledges that neither the Plan nor this Agreement forms part of his terms of employment and nothing in the Plan may be construed as imposing on the Company or any Affiliate a contractual obligation to offer participation in the Plan to any employee of the Company or any Affiliate. The Company or any Affiliate is under no obligation to make further Grants to any Recipient under the Plan. The Recipient hereby acknowledges that if he ceases to be an employee of the Company or

any Affiliate for any reason or no reason, he shall not be entitled by way of compensation for loss of office or otherwise howsoever to any sum.

15. Data Protection. By accepting this Agreement (whether by electronic means or otherwise), the Recipient hereby consents to the holding and processing of personal data provided by him to the Company for all purposes necessary for the operation of the Plan. These include, but are not limited to:

(a) administering and maintaining Recipient records;

(b) providing information to any registrars, brokers or third party administrators of the Plan; and

(c) providing information to future purchasers of the Company or the business in which the Recipient works.

16. Severability. If any provision of this Agreement is held invalid or unenforceable, the remainder of this Agreement shall nevertheless remain in full force and effect, and if any provision is held invalid or unenforceable with respect to particular circumstances, it shall nevertheless remain in full force and effect in all other circumstances, to the fullest extent permitted by law.

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Exhibit “A”

Apache Corporation
Retirement Matrix

Age at Retirement	Points (Age at Retirement + Years of Service)																				
	60	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
70	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%
69	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%
68	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%
67	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
66	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
65	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
64	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
63	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
62	0%	0%	0%	0%	0%	0%	0%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
61	0%	0%	0%	0%	0%	0%	50%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
60	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
59	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
58	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
57	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
56	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
55	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%

0%
50%
75%
100%

SCHEDULE A

Apache Corporation

Restricted Stock Unit Award Agreement

GRANT NOTICE

Recipient Name:	[Name]
Company:	Apache Corporation
Notice:	A summary of the terms of your grant of Restricted Stock Units ("RSUs") is set out in this notice (the "Grant Notice") but subject always to the terms of the Apache Corporation 2016 Omnibus Compensation Plan (the "Plan") and the Restricted Stock Unit Award Agreement (the "Agreement"). In the event of any inconsistency between the terms of this Grant Notice, the terms of the Plan and the Agreement, the terms of the Plan and the Agreement shall prevail. The Grant is a Cash-Based Award under Section 10 of the Plan and is subject to the provisions of the Plan governing RSUs. You have been awarded a grant of Apache Corporation RSUs in accordance with the terms of the Plan and the Agreement. Details of the RSUs which you are entitled to receive is provided to you in this Grant Notice and maintained on your account at netbenefits.fidelity.com.
Type of Award:	Restricted Stock Unit(s)
Restricted Stock Unit:	A Restricted Stock Unit ("RSU") as defined in the Plan and meaning the right granted to the Recipient to receive one share of Stock or the cash equivalent thereof for each RSU at the end of the specified Vesting Period.
Stock:	The $0.625 par value common stock of the Company or as otherwise defined in the Plan.
Grant:	A Grant related to ______ Restricted Stock Units.
Grant Date:	[Date]
Conditions:	The Recipient may elect, at the time of the grant, to have his or her RSUs deferred into the Deferred Delivery Plan (the "DDP") when

the RSUs vest, in which case the Recipient will receive the value of the RSUs in cash at the times specified pursuant to the DDP. For RSUs that are not deferred, once the RSU vests, the Recipient shall be paid the value of his or her RSUs in cash (net of cash withheld for applicable tax withholdings).

Vesting Period: RSUs granted shall vest (i.e., restrictions shall lapse) in accordance with the following schedule (the "Vesting Period"), provided that the Recipient remains employed as an Eligible Person as of such vesting date:

First day of the month following the first anniversary of the Grant Date – 1/3 vested.

Second anniversary of the Grant Date – an additional 1/3 vested.

Third anniversary of the Grant Date – an additional 1/3 vested.

Notwithstanding the foregoing, if the Recipient's termination of employment from the Company and the Affiliates occurs by reason of his or her Retirement, the Recipient shall be deemed to continue to be employed as an Eligible Person for purposes of this Grant and shall continue to vest with respect to a specified percentage of RSUs over the Vesting Period set forth above provided that the Recipient meets the Retirement Conditions set forth in section 5 of the Agreement.

Upon vesting (other than upon death or Disability), the applicable amount of cash, subject to required tax withholding, shall be paid by the Company to the Recipient within thirty (30) days of the vesting date, unless the Recipient had elected to defer such RSUs into the DDP, in which case the applicable amount of cash shall be paid to the DDP on the vesting date and paid out according to the provisions of the DDP.

Vesting is accelerated to 100% upon the Recipient's death or cessation of employment by reason of Disability while an Eligible Person (or, only in the case of death, while treated as an Eligible Person following Retirement as described above) during the Vesting Period. Upon vesting, the applicable amount of cash, subject to required tax withholding, shall be paid by the Company to the Recipient's designated beneficiary, legal representatives, heirs, or legatees, as applicable, in accordance with the terms of the Plan and this Agreement. The Recipient can name a beneficiary on a form approved by the Committee.

Vesting is accelerated to 100% upon the Recipient's Involuntary Termination or Voluntary Termination with Cause occurring on or after a Change of Control that occurs during the Vesting Period. With respect to a Recipient who continues to vest following his or her termination due to Retirement, vesting is accelerated to 100% upon a Change of Control that occurs during the Vesting Period and on or after such termination by reason of Retirement. With respect to a Recipient who terminates employment by reason of Retirement after a Change of Control, vesting is accelerated to 100% upon the Recipient's termination of employment by reason of Retirement. Unless expressly otherwise provided in the Agreement with respect to Retirement and Change of Control, the applicable amount of cash, subject to required tax withholding, shall be paid by the Company to the Recipient within thirty (30) days of the vesting date, unless the Recipient had elected to defer such RSUs into the DDP, in which case the applicable amount of cash shall be paid to the DDP on the vesting date and paid out according to the provisions of the DDP.

Withholding: The Company and the Recipient will comply with all federal and state laws and regulations respecting the required withholding, deposit, and payment of any income, employment, or other taxes relating to the Grant.

Dividends: The Company will credit each of the Recipient's RSUs with Dividend Equivalents. For purposes of this Grant, a Dividend Equivalent is an amount equal to the cash dividend payable per share of Stock multiplied by the number of shares of Stock then underlying such outstanding RSUs. Such amount will be credited to a book entry account on Recipient's behalf at the time the Company pays any cash dividend on its Stock. The Recipient's rights in any such Dividend Equivalents will vest at the same time as, and only to the extent that, the underlying RSUs vest and will be distributed at the same time in cash (subject to applicable withholdings), and only to the extent, as the related RSUs are to be distributed to the Recipient as provided in the Agreement and to which such Dividend Equivalents apply.

Acceptance: Please complete the on-line grant acceptance as promptly as possible to accept or reject your Grant. You can access this through your account at netbenefits.fidelity.com. By accepting your Grant, you will have agreed to the terms and conditions set forth in the Agreement, including, but not limited to, the non-compete and non-disparagement provisions set forth in sections 5 and 6 of the Agreement, and the terms and conditions of the Plan. If you do not accept your Grant, your RSUs will not vest and you will be unable to receive your RSUs.

Apache Corporation

Restricted Stock Unit Award Agreement

This Restricted Stock Unit Award Agreement (the “Agreement”) relating to a grant of Restricted Stock Units (as defined in the definition section of the Apache Corporation 2016 Omnibus Compensation Plan (the “Plan”)) (the “Grant”), dated as of the Grant Date set forth in the Notice of Award under the Agreement attached as Schedule A hereto (the “Grant Notice”), is made between Apache Corporation (together with its Affiliates, the “Company”) and each Recipient. The Grant Notice is included in and made part of this Agreement.

In this Agreement and each Grant Notice, unless the context otherwise requires, words and expressions shall have the meanings given to them in the Plan except as herein defined.

<u>Definitions</u>

“<u>409A Change of Control</u>” means a Change of Control that constitutes, with respect to Apache Corporation, a “change in the ownership or effective control of the corporation, or in the ownership of a substantial portion of the assets of the corporation” within the meaning of Section 409A(a)(2)(A)(v) of the Internal Revenue Code of 1986, as amended (the “Code”) and Treasury Regulations Section 1.409A-3(i)(5).

“<u>Disability</u>” or “<u>Disabled</u>” means the Recipient is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. Recipient agrees that a final and binding determination of “Disability” will be made by the Company’s representative under the Company’s group long-term disability plan or any successor thereto or, if there is no such representative and there is a dispute as to the determination of “Disability,” it will be decided in a court of law in Harris County, Texas.

“<u>Grant Notice</u>” means the separate notice given to each Recipient specifying the number of RSUs granted to the Recipient (the “<u>Grant</u>”).

“<u>Fair Market Value</u>” means the fair market value of a share of the Stock as determined by the Committee by the reasonable application of such reasonable valuation method, consistently applied, as the Committee deems appropriate; provided, however, that if the Committee has not made such determination, such fair market value shall be the per share closing price of the Stock as reported on The New York Stock Exchange, Inc. Composite Transactions Reporting System (“Composite Tape”) for a particular date or, if the Stock is not so listed on such date, as reported on NASDAQ or on such other exchange or electronic trading system as, on the date in question, reports the largest number of traded shares of stock; provided further, however, that if there are no Stock transactions on such date, the Fair Market Value shall be determined as of the immediately preceding date on which there were Stock transactions.

“<u>Involuntary Termination</u>” means the termination of employment of the Recipient by the Company or its successor for any reason on or after a Change of Control; provided, that the termination does not result from an act of the Recipient that (i) constitutes common-law fraud, a felony, or a gross malfeasance of duty and (ii) is materially detrimental to the best interests of the Company or its successor.

"Payout Amount" means the vested portion of the Grant expressed as an amount of cash equal to the Fair Market Value of the shares of Stock underlying the RSUs and related Dividend Equivalents.

"Recipient" means an Eligible Person designated by the Committee at the Grant Date to receive one or more Grants under the Plan.

"Retirement" means, with respect to a Recipient and for purposes of this Agreement, the date the Recipient terminates employment with the Company after attaining (i) age 55 and (ii) a certain combination of age and Years of Service set forth in the Matrix in Exhibit "A" attached hereto.

"Years of Service" means the total number of months from the Recipient's date of hire by the Company to the date of termination of employment, plus any months required to be recognized under an appropriate acquisition agreement, divided by 12.

"Voluntary Termination with Cause" occurs upon a Recipient's separation from service of his or her own volition and one or more of the following conditions occurs without the Recipient's consent on or after a Change of Control:

(a) There is a material diminution in the Recipient's base compensation, compared to his or her rate of base compensation on the date of the Change of Control.

(b) There is a material diminution in the Recipient's authority, duties or responsibilities.

(c) There is a material diminution in the authority, duties or responsibilities of the Recipient's supervisor, such as a requirement that the Recipient (or his or her supervisor) report to a corporate officer or employee instead of reporting directly to the board of directors.

(d) There is a material diminution in the budget over which the Recipient retains authority.

(e) There is a material change in the geographic location at which the Recipient must perform his or her service, including, for example the assignment of the Recipient to a regular workplace that is more than 50 miles from his or her regular workplace on the date of the Change of Control.

The Recipient must notify the Company of the existence of one or more adverse conditions specified in clauses (a) through (e) above within 90 days of the initial existence of the adverse condition. The notice must be provided in writing to the Company or its successor, attention:

Vice President, Human Resources. The notice may be provided by personal delivery or it may be sent by email, inter-office mail, regular mail (whether or not certified), fax, or any similar method. The Company's Vice President, Human Resources, or his/her delegate shall acknowledge receipt of the notice within 5 business days; the acknowledgement shall be sent to the Recipient by certified mail. Notwithstanding the foregoing provisions of this definition, if the Company remedies the adverse condition within 30 days of being notified of the adverse condition, no Voluntary Termination with Cause shall occur.

Terms

1. Grant of RSUs. Subject to the provisions of this Agreement and the provisions of the Plan and Grant Notice, the Company shall grant to the Recipient, pursuant to the Plan, a right to receive the number of RSUs set forth in the Recipient's Grant Notice. The Grant shall give the Recipient the right, upon vesting, to receive an amount in cash equal to the Fair Market Value of an equal number of shares of $0.625 par value common stock of the Company ("Stock") to that of the number of RSUs set forth in the Recipient's Grant Notice. At the time of the Grant, the Recipient may elect to defer all or any portion of the RSUs in the Deferred Delivery Plan (the "DDP").

2. Vesting and Payment of Cash. Subject to the provisions of sections 3 and 4 of this Agreement, the entitlement to receive an amount of cash equal to the Fair Market Value of the number of shares of Stock pursuant to the RSUs comprising the Grant Amount shall vest in accordance with the schedule set forth in the Grant Notice (the "Vesting Period"); provided that the Recipient remains employed as an Eligible Person on such applicable vesting dates. Unless the Recipient elected to defer the RSU into the DDP, such cash, subject to applicable withholding, shall be paid by the Company to the Recipient within thirty (30) days of the vesting date (other than upon death or Disability). To the extent that the Recipient elected to defer the RSUs into the DDP and sections 3 and 4 do not apply, when the RSUs vest, an amount of cash equal to the Fair Market Value of the number of shares of Stock that have vested pursuant to the RSUs comprising the Grant Amount shall be paid to the DDP and paid thereafter to the Recipient as specified under the terms of the DDP.

3. Termination of Employment, Retirement, Death, or Disability. Except as set forth below in this section 3 and in section 4 of this Agreement, each Grant shall be subject to the condition that the Recipient has remained an Eligible Person from the award of the Grant of RSUs until the applicable vesting date as follows:

(a) If the Recipient voluntarily leaves the employment of the Company (other than for reason of Retirement), or if the employment of the Recipient is terminated by the Company for any reason or no reason, any RSUs granted to the Recipient pursuant to the Grant Notice not previously vested shall thereafter be void and forfeited for all purposes.

(b) If the Recipient leaves the employment of the Company by reason of Retirement, the RSUs granted to the Recipient pursuant to the Grant Notice not previously vested shall continue to vest following the Recipient's termination of employment by reason of Retirement as if the Recipient remained an Eligible Person in the employ of the Company, provided that such Recipient shall be entitled to continue vesting only if such Recipient satisfies the Retirement Conditions set forth in section 5 below (except in the case of death) and only with respect to the specified percentage of such unvested RSUs set forth in Exhibit "A" for a certain combination of age and Years of Service attained by the Recipient as of the Recipient's Retirement under the Matrix set forth in Exhibit "A".

(c) A Recipient shall become 100% vested in all RSUs under the Grant Notice on the date the Recipient dies while employed by the Company regardless whether Recipient has accepted the Grant, or on the date the Recipient is no longer employed by the Company by reason of Disability, or, only in the case of death, while continuing to vest pursuant to section 3(b) of this Agreement. Payment shall be made as soon as administratively practicable, but in no event (i) in the case of death, shall the payment occur later than the last day of the calendar year following the calendar year in which such death occurs or (ii) in the case of cessation of employment by reason of Disability, shall the payment occur later than thirty (30) days following the date the Recipient is determined to be Disabled and is no longer employed by the Company. If clause (ii) is applicable and the period from the date on which the Recipient is determined to be Disabled and is no longer employed by the Company to the date under clause (ii) spans two consecutive calendar years, payment shall be made in the second calendar year of such consecutive calendar years. Such payment shall be made to the Recipient's designated beneficiary, legal representatives, heirs, or legatees, as applicable. Each Recipient may designate a beneficiary on a form approved by the Committee.

4. Change of Control. Pursuant to Section 13.1(c)(iii) and (d) of the Plan, the following provisions of this section 4 of the Agreement shall supersede Sections 13.1(a), (b) and (c) of the Plan. Without any further action by the Committee or the Board, in the event of a Recipient's Involuntary Termination or Voluntary Termination with Cause occurring on or after a Change of Control during the Vesting Period, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date of his or her Involuntary Termination or Voluntary Termination with Cause. Subject to section 11(b) of this Agreement, payment shall occur within thirty (30) days following the date of such Involuntary Termination or Voluntary Termination with Cause, subject to required tax withholding. Further, in the event of a Change of Control following the Recipient's termination of employment by reason of Retirement while the Recipient is continuing to vest in the RSUs pursuant to section 3(b) of this Agreement, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date of the Change of Control (including those excluded by the specified percentage set forth in Exhibit "A"). Subject to section 11(b) of this Agreement, the Recipient, if the Recipient terminates employment on account of Retirement prior to the occurrence of a Change of Control, shall receive payment with respect to 100% of the fully vested RSUs within thirty (30) days of the date of a 409A Change of Control, or if the Change of Control is not a 409A Change of Control, on the remaining vesting dates during the Vesting Period in the amount of 1/3 (on each of the remaining vesting dates) of the RSUs awarded as of the Grant Date, subject to required tax withholding. Further still, in the event of a Change of Control prior to the Recipient's termination of employment by reason of Retirement during the Vesting Period, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date the Recipient terminates employment by reason of Retirement (including those excluded by the specified percentage set forth in Exhibit "A"). For the purpose of vesting as set forth in the prior sentence, a Recipient's Involuntary Termination or Voluntary Termination with Cause after a Change of Control shall be deemed a termination by reason of Retirement. Subject to section 11(b)

of this Agreement, the Recipient, who terminates employment by reason of Retirement after a Change of Control, shall receive payment with respect to 100% of the fully vested RSUs on the remaining vesting dates during the Vesting Period in the amount of 1/3 (on each of the remaining vesting dates) of the RSUs awarded as of the Grant Date, subject to required tax withholding.

5. Conditions to Post-Retirement Vesting. If the Recipient has attained age 55 and a certain combination of age and Years of Service set forth in the Matrix in Exhibit "A" attached hereto and terminates employment with the Company and the Affiliates by reason of Retirement, it is agreed by the Company and the Recipient that:

(a) subject to the provisions of this section 5(a) and sections 5(b) and 5(c), such Recipient shall continue to vest in the specified percentage of unvested RSUs set forth in Exhibit "A", for the combination of age and Years of Service attained by such Recipient as of his or her Retirement under the Matrix set forth in Exhibit "A", following the date of his or her termination by reason of Retirement as if the Recipient continued in employment as an Eligible Person provided that the Grant Date of the unvested RSUs is prior to such termination date in an amount of time which allows the Recipient to provide the written notice as follows and the Recipient has provided advance written notice not before three (3) months following the Grant Date and not less than the number of months prior to such termination date as set forth in the Schedule below to Apache Corporation's Vice President, Human Resources, or his or her delegate, and to his or her direct manager, regarding the Recipient's intent to terminate employment for reason of Retirement; provided, however, a Recipient who is at least age 55 and attained the necessary combination of age and Years of Service under the Matrix set forth in Exhibit "A" for Retirement need not provide such advance written notice of his or her intent to terminate employment by reason of Retirement if the Company elects to require such Recipient to, or (as part of a reduction in force or otherwise in writing in exchange for a written release) offers such Recipient the opportunity to, terminate employment with the Company by reason of Retirement:

Age	Advance Written Notice
65 or older	3 months
between (and including) 55 and 64	6 months

; and it is further agreed that

(b) in consideration for the continued vesting treatment afforded to the Recipient under section 5(a), Recipient shall, during the continuing Vesting Period after Retirement (the "Continued Vesting Period"), refrain from becoming employed by, or consulting with, or becoming substantially involved in the business of, any business that competes with the Company or its Affiliate in the business of exploration or production of oil or natural gas wherever from time to time conducted throughout the world (a "Competitive Business") and Recipient shall provide to the Company, upon Company's request, (x) a written certification, in a form provided by or satisfactory to the Company, as to Recipient's compliance with the forgoing conditions and/or (y) his/her U.S. Individual Income Tax Return for any return filed by the Recipient which relates to any time during the Continued Vesting Period to allow the Company to verify that Recipient has complied with the foregoing conditions; provided, that the Recipient may purchase and hold for investment purposes less than five percent (5%) of the shares of any Competitive Business whose shares are regularly traded on a national securities exchange or inter-dealer quotation system, and provided further, that the Recipient may provide services solely as a director of any Competitive Business whose shares are regularly traded on a national securities exchange or inter-dealer quotation system if, during the Continued Vesting Period, (i) the Recipient only attends board and board committee meetings, votes on recommendations of management, and discharges his/her fiduciary obligations under the law and (ii) the Recipient is not involved in, and does not advise or consult on, the marketing, government relations, customer relations, or the day-to-day management, supervision, or operations of such Competitive Business; and it is further agreed that

(c) in consideration for the continued vesting treatment afforded to the Recipient under section 5(a), Recipient shall, during the Continued Vesting Period, refrain from making, or causing or assisting any other person to make, any oral or written communication to any third party about the Company, any Affiliate and/or any of the employees, officers or directors of the Company or any Affiliate which impugns or attacks, or is otherwise critical of, the reputation, business or character of such entity or person; or that discloses private or confidential information about their business affairs; or that constitutes an intrusion into their seclusion or private lives; or that gives rise to unreasonable publicity about their private lives; or that places them in a false light before the public; or that constitutes a misappropriation of their name or likeness.

Notwithstanding the foregoing provisions of this section 5 of the Agreement, (i) in the event that the Recipient fails to satisfy any of the conditions set forth in sections 5(a), (b) and (c) above, the Recipient shall not be entitled to vest in any unvested RSUs after the date of Retirement and the unvested RSUs subject to this Agreement shall be forfeited and (ii) the Recipient shall not have any right to continue to vest upon Retirement in any future awards granted under the Plan once the Recipient provides the notice of Retirement as set forth in section 5(a) above.

6. Prohibited Activity. In consideration for this Grant and except as permitted under section 5(b) above, the Recipient agrees not to engage in any “Prohibited Activity” while employed by the Company or within three years after the date of the Recipient’s termination of employment. A “Prohibited Activity” will be deemed to have occurred, as determined by the Committee in its sole and absolute discretion, if the Recipient (i) divulges any non-public, confidential or proprietary information of the Company, but excluding information that (a) becomes generally available to the public other than as a result of the Recipient’s public use, disclosure, or fault, or (b) becomes available to the Recipient on a non-confidential basis after the Recipient’s employment termination date from a source other than the Company prior to the public use or disclosure by the Recipient, provided that such source is not bound by a confidentiality agreement or otherwise prohibited from transmitting the information by contractual, legal or fiduciary obligation; (ii) directly or indirectly, consults with or becomes affiliated with, participate or engage in, or becomes employed by any business that is competitive with the Company, wherever from time to time conducted throughout the world, including situations where the Recipient solicits or participates in or assists in any way in the solicitation or recruitment, directly or indirectly, of any employees of the Company; or (iii) engages in publishing any oral or written statements about the Company, and/or any of its directors, officers, or employees that are disparaging, slanderous, libelous, or defamatory; or that disclose

private or confidential information about their business affairs; or that constitute an intrusion into their seclusion or private lives; or that give rise to unreasonable publicity about their private lives; or that place them in a false light before the public; or that constitute a misappropriation of their name or likeness.

7. Payment and Tax Withholding. Upon receipt of any entitlement to cash under this Agreement and, if applicable, upon the Recipient's attainment of eligibility to terminate employment by reason of Retirement pursuant to section 3(b), the Recipient shall make appropriate arrangements with the Company to provide for the amount of minimum tax and social security withholding, if any, required by law, including without limitation Sections 3102 and 3402 or any successor section(s) of the Internal Revenue Code and applicable state and local income and other tax laws. The payment of a Payout Amount shall be based on the Fair Market Value of the shares of Stock on the applicable date of vesting to which such tax withholding relates. Where appropriate, cash shall be withheld by the Company to satisfy applicable tax withholding requirements rather than paid directly to the Recipient.

8. Non-Transferability of Grant. A Grant shall not be transferable otherwise than by testamentary will or the laws of descent and distribution, or in accordance with a valid beneficiary designation on a form approved by the Committee, subject to the conditions and exceptions set forth in Section 15.2 of the Plan.

9. No Right to Continued Employment. Neither the RSUs or the cash payment pursuant to a Grant nor any terms contained in this Agreement shall confer upon the Recipient any express or implied right to be retained in the employment or service of the Company for any period, nor restrict in any way the right of the Company, which right is hereby expressly reserved, to terminate the Recipient's employment or service at any time for any reason or no reason. The Recipient acknowledges and agrees that any right to receive RSUs or cash pursuant to a Grant is earned only by continuing as an employee of the Company at the will of the Company, or satisfaction of any other applicable terms and conditions contained in the Plan and this Agreement, and not through the act of being hired, being granted the Grant, or acquiring RSUs or cash pursuant to the Grant hereunder.

10. The Plan. In consideration for this Grant, the Recipient agrees to comply with the terms of the Plan and this Agreement. This Agreement is subject to all the terms, provisions and conditions of the Plan, which are incorporated herein by reference, and to such regulations as may from time to time be adopted by the Committee. The Grant is a Cash-Based Award under Section 10 of the Plan and is subject to the provisions of the Plan governing RSUs. Unless defined herein, capitalized terms are used herein as defined in the Plan. In the event of any conflict between the provisions of the Plan and this Agreement, the provisions of the Plan shall control, and this Agreement shall be deemed to be modified accordingly. The Plan and the prospectus describing the Plan can be found on the Company's HR intranet and the Plan document can be found on Fidelity's website (netbenefits.fidelity.com). A paper copy of the Plan and the prospectus shall be provided to the recipient upon the Recipient's written request to the Company at 2000 Post Oak Blvd., Suite 100, Houston, Texas 77056-4400, Attention: Corporate Secretary.

11. Compliance with Laws and Regulations.

(a) The Grant and any obligation of the Company to deliver RSUs and cash hereunder shall be subject in all respects to (i) all applicable laws, rules and regulations and (ii) any registration, qualification, approvals or other requirements imposed by any government or regulatory agency or body which the Committee shall, in its discretion, determine to be necessary or applicable.

(b) This Grant is intended to comply with, or be exempt from, the applicable requirements of Section 409A of the Code and the rules and regulations issued thereunder and shall be administered accordingly. Notwithstanding anything in this Agreement to the contrary, if the RSUs constitute "deferred compensation" under Section 409A of the Code and any RSUs become payable pursuant to the Recipient's termination of employment, settlement of the RSUs shall be delayed for a period of six months after the Recipient's termination of employment if the Recipient is a "specified employee" as defined under Code Section 409A(a)(2)(B)(i) and if required pursuant to Section 409A of the Code. If settlement of the RSU is delayed, the RSUs shall be settled on the first day of the first calendar month following the end of the six-month delay period. If the Recipient dies during the six-month delay, the RSUs shall be settled and paid to the Recipient's designated beneficiary, legal representatives, heirs or legatees, as applicable, as soon as practicable after the date of death. Notwithstanding any provisions to the contrary herein, payments made with respect to this Grant may only be made in a manner and upon an event permitted by Section 409A of the Code, and all payments to be made upon a termination of employment hereunder may only be made upon a "separation from service", as such term is defined in Section 11.1 of the Plan. Recipient shall not have any right to determine a date of payment of any amount under this Agreement. This Agreement may be amended without the consent of the Recipient in any respect deemed by the Board or the Committee to be necessary in order to preserve compliance with Section 409A of the Code. If the Grant and this Agreement is subject to Section 409A of the Code and the rules and regulations issued thereunder, then the vesting date shall be the "designated payment date" or "specified date" under Treasury Regulation 1.409A-3(d).

12. Notices. Unless otherwise provided in this Agreement, all notices by the Recipient or the Recipient's assignees shall be addressed to the Administrative Agent, Fidelity, through the Recipient's account at netbenefits.fidelity.com, or such other address as the Company may from time to time specify. All notices to the Recipient shall be addressed to the Recipient at the Recipient's address in the Company's records.

13. Other Plans. The Recipient acknowledges that any income derived from the Grant shall not affect the Recipient's participation in, or benefits under, any other benefit plan or other contract or arrangement maintained by the Company or any Affiliate.

14. Terms of Employment. The Plan is a discretionary plan. The Recipient hereby acknowledges that neither the Plan nor this Agreement forms part of his terms of employment and nothing in the Plan may be construed as imposing on the Company or any Affiliate a contractual obligation to offer participation in the Plan to any employee of the Company or any Affiliate. The Company or any Affiliate is under no obligation to make further Grants to any Recipient under the Plan. The Recipient hereby acknowledges that if he ceases to be an employee of the Company or

any Affiliate for any reason or no reason, he shall not be entitled by way of compensation for loss of office or otherwise howsoever to any sum.

15. Data Protection. By accepting this Agreement (whether by electronic means or otherwise), the Recipient hereby consents to the holding and processing of personal data provided by him to the Company for all purposes necessary for the operation of the Plan. These include, but are not limited to:

(a) administering and maintaining Recipient records;

(b) providing information to any registrars, brokers or third party administrators of the Plan; and

(c) providing information to future purchasers of the Company or the business in which the Recipient works.

16. Severability. If any provision of this Agreement is held invalid or unenforceable, the remainder of this Agreement shall nevertheless remain in full force and effect, and if any provision is held invalid or unenforceable with respect to particular circumstances, it shall nevertheless remain in full force and effect in all other circumstances, to the fullest extent permitted by law.

*****

Exhibit "A"

Apache Corporation
Retirement Matrix

Age at Retirement	Points (Age at Retirement + Years of Service)																				
	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
70	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%
69	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%
68	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%
67	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
66	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
65	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
64	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
63	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
62	0%	0%	0%	0%	0%	0%	0%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
61	0%	0%	0%	0%	0%	0%	50%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
60	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
59	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
58	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
57	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
56	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
55	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%

0%
50%
75%
100%

Exhibit 10.58

SCHEDULE A

Apache Corporation

Restricted Stock Unit Award Agreement

GRANT NOTICE

Recipient Name:	[Name]
Company:	Apache Corporation
Notice:	A summary of the terms of your grant of Restricted Stock Units (“RSUs”) is set out in this notice (the “Grant Notice”) but subject always to the terms of the Apache Corporation 2016 Omnibus Compensation Plan (the “Plan”) and the Restricted Stock Unit Award Agreement (the “Agreement”). In the event of any inconsistency between the terms of this Grant Notice, the terms of the Plan and the Agreement, the terms of the Plan and the Agreement shall prevail. You have been awarded a grant of Apache Corporation RSUs in accordance with the terms of the Plan and the Agreement. Details of the RSUs which you are entitled to receive is provided to you in this Grant Notice and maintained on your account at netbenefits.fidelity.com.
Type of Award:	Restricted Stock Unit(s)
Restricted Stock Unit:	A Restricted Stock Unit (“RSU”) as defined in the Plan and meaning the right granted to the Recipient to receive one share of Stock for each RSU at the end of the specified Vesting Period.
Stock:	The $0.625 par value common stock of the Company or as otherwise defined in the Plan.
Grant:	A Grant related to ______ Restricted Stock Units.
Grant Date:	[Date]
Conditions:	The Recipient may elect, at the time of the grant, to have his or her RSUs deferred into the Deferred Delivery Plan (the “DDP”) when the RSUs vest, in which case the Recipient will receive the value of the RSUs at the times specified pursuant to the DDP. For RSUs that are not deferred, once the RSU vests, the Recipient shall be paid the

value of his or her RSUs in shares of Stock (net of shares withheld for applicable tax withholdings).

Vesting Period: RSUs granted shall vest (i.e., restrictions shall lapse) in accordance with the following schedule (the "Vesting Period"), provided that the Recipient remains employed as an Eligible Person as of such vesting date:

First day of the month following the first anniversary of the Grant Date – 1/3 vested.

Second anniversary of the Grant Date – an additional 1/3 vested.

Third anniversary of the Grant Date – an additional 1/3 vested.

Notwithstanding the foregoing, if the Recipient's termination of employment from the Company and the Affiliates occurs by reason of his or her Retirement, the Recipient shall be deemed to continue to be employed as an Eligible Person for purposes of this Grant and shall continue to vest with respect to a specified percentage of RSUs over the Vesting Period set forth above provided that the Recipient meets the Retirement Conditions set forth in section 5 of the Agreement.

Upon vesting (other than upon death or Disability), the applicable shares of Stock, subject to required tax withholding, shall be transferred by the Company to the Recipient within thirty (30) days of the vesting date, unless the Recipient had elected to defer such RSUs into the DDP, in which case the RSUs shall be transferred to the DDP on the vesting date and paid out according to the provisions of the DDP.

Vesting is accelerated to 100% upon the Recipient's death or cessation of employment by reason of Disability while an Eligible Person (or, only in the case of death, while treated as an Eligible Person following Retirement as described above) during the Vesting Period. Upon vesting, the applicable shares of Stock, subject to required tax withholding, shall be transferred by the Company to the Recipient's designated beneficiary, legal representatives, heirs, or legatees, as applicable, in accordance with the terms of the Plan and this Agreement. The Recipient can name a beneficiary on a form approved by the Committee.

Vesting is accelerated to 100% upon the Recipient's Involuntary Termination or Voluntary Termination with Cause occurring on or after a Change of Control that occurs during the Vesting Period. With respect to a Recipient who continues to vest following his or her termination due to Retirement, vesting is accelerated to 100% upon a Change of Control that occurs during the Vesting Period and on or after such termination by reason of Retirement. With respect to a Recipient who terminates employment by reason of Retirement after a Change of Control, vesting is accelerated to 100% upon the Recipient's termination of employment by reason of Retirement. Unless expressly otherwise provided in the Agreement with respect to Retirement and Change of Control, the applicable amount of shares of Stock, subject to required tax withholding, shall be transferred by the Company to the Recipient within thirty (30) days of the vesting date, unless the Recipient had elected to defer such RSUs into the DDP, in which case the RSUs shall be transferred to the DDP on the vesting date and paid out according to the provisions of the DDP.

Withholding: The Company and the Recipient will comply with all federal and state laws and regulations respecting the required withholding, deposit, and payment of any income, employment, or other taxes relating to the Grant.

Dividends: The Company will credit each of the Recipient's RSUs with Dividend Equivalents. For purposes of this Grant, a Dividend Equivalent is an amount equal to the cash dividend payable per share of Stock multiplied by the number of shares of Stock then underlying such outstanding RSUs. Such amount will be credited to a book entry account on Recipient's behalf at the time the Company pays any cash dividend on its Stock. The Recipient's rights in any such Dividend Equivalents will vest at the same time as, and only to the extent that, the underlying RSUs vest and will be distributed at the same time in cash (subject to applicable withholdings), and only to the extent, as the related RSUs are to be distributed to the Recipient as provided in the Agreement and to which such Dividend Equivalents apply.

Acceptance: Please complete the on-line grant acceptance as promptly as possible to accept or reject your Grant. You can access this through your account at netbenefits.fidelity.com. By accepting your Grant, you will have agreed to the terms and conditions set forth in the Agreement, including, but not limited to, the non-compete and non-disparagement provisions set forth in sections 5 and 6 of the Agreement, and the terms and conditions of the Plan. If you do not accept your Grant, your RSUs will not vest and you will be unable to receive your RSUs.

Apache Corporation

Restricted Stock Unit Award Agreement

This Restricted Stock Unit Award Agreement (the "Agreement") relating to a grant of Restricted Stock Units (as defined in the definition section of the Apache Corporation 2016 Omnibus Compensation Plan (the "Plan")) (the "Grant"), dated as of the Grant Date set forth in the Notice of Award under the Agreement attached as Schedule A hereto (the "Grant Notice"), is made between Apache Corporation (together with its Affiliates, the "Company") and each Recipient. The Grant Notice is included in and made part of this Agreement.

In this Agreement and each Grant Notice, unless the context otherwise requires, words and expressions shall have the meanings given to them in the Plan except as herein defined.

Definitions

"409A Change of Control" means a Change of Control that constitutes, with respect to Apache Corporation, a "change in the ownership or effective control of the corporation, or in the ownership of a substantial portion of the assets of the corporation" within the meaning of Section 409A(a)(2)(A)(v) of the Internal Revenue Code of 1986, as amended (the "Code") and Treasury Regulations Section 1.409A-3(i)(5).

"Disability" or "Disabled" means the Recipient is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. Recipient agrees that a final and binding determination of "Disability" will be made by the Company's representative under the Company's group long-term disability plan or any successor thereto or, if there is no such representative and there is a dispute as to the determination of "Disability," it will be decided in a court of law in Harris County, Texas.

"Grant Notice" means the separate notice given to each Recipient specifying the number of RSUs granted to the Recipient (the "Grant").

"Fair Market Value" means the fair market value of a share of the Stock as determined by the Committee by the reasonable application of such reasonable valuation method, consistently applied, as the Committee deems appropriate; provided, however, that if the Committee has not made such determination, such fair market value shall be the per share closing price of the Stock as reported on The New York Stock Exchange, Inc. Composite Transactions Reporting System ("Composite Tape") for a particular date or, if the Stock is not so listed on such date, as reported on NASDAQ or on such other exchange or electronic trading system as, on the date in question, reports the largest number of traded shares of stock; provided further, however, that if there are no Stock transactions on such date, the Fair Market Value shall be determined as of the immediately preceding date on which there were Stock transactions.

"Involuntary Termination" means the termination of employment of the Recipient by the Company or its successor for any reason on or after a Change of Control; provided, that the termination does not result from an act of the Recipient that (i) constitutes common-law fraud, a felony, or a gross malfeasance of duty and (ii) is materially detrimental to the best interests of the Company or its successor.

"Payout Amount" means the vested portion of the Grant, along with any Dividend Equivalents related thereto as specified in the Grant Notice, expressed as shares of Stock underlying the RSUs and related Dividend Equivalents.

"Recipient" means an Eligible Person designated by the Committee at the Grant Date to receive one or more Grants under the Plan.

"Retirement" means, with respect to a Recipient and for purposes of this Agreement, the date the Recipient terminates employment with the Company after attaining (i) age 55 and (ii) a certain combination of age and Years of Service set forth in the Matrix in Exhibit "A" attached hereto.

"Years of Service" means the total number of months from the Recipient's date of hire by the Company to the date of termination of employment, plus any months required to be recognized under an appropriate acquisition agreement, divided by 12.

"Voluntary Termination with Cause" occurs upon a Recipient's separation from service of his or her own volition and one or more of the following conditions occurs without the Recipient's consent on or after a Change of Control:

(a) There is a material diminution in the Recipient's base compensation, compared to his or her rate of base compensation on the date of the Change of Control.

(b) There is a material diminution in the Recipient's authority, duties or responsibilities.

(c) There is a material diminution in the authority, duties or responsibilities of the Recipient's supervisor, such as a requirement that the Recipient (or his or her supervisor) report to a corporate officer or employee instead of reporting directly to the board of directors.

(d) There is a material diminution in the budget over which the Recipient retains authority.

(e) There is a material change in the geographic location at which the Recipient must perform his or her service, including, for example the assignment of the Recipient to a regular workplace that is more than 50 miles from his or her regular workplace on the date of the Change of Control.

The Recipient must notify the Company of the existence of one or more adverse conditions specified in clauses (a) through (e) above within 90 days of the initial existence of the adverse condition. The notice must be provided in writing to the Company or its successor, attention:

Vice President, Human Resources. The notice may be provided by personal delivery or it may be sent by email, inter-office mail, regular mail (whether or not certified), fax, or any similar method. The Company's Vice President, Human Resources, or his/her delegate shall acknowledge receipt of the notice within 5 business days; the acknowledgement shall be sent to the Recipient by certified mail. Notwithstanding the foregoing provisions of this definition, if the Company remedies the adverse condition within 30 days of being notified of the adverse condition, no Voluntary Termination with Cause shall occur.

Terms

1. Grant of RSUs. Subject to the provisions of this Agreement and the provisions of the Plan and Grant Notice, the Company shall grant to the Recipient, pursuant to the Plan, a right to receive the number of RSUs set forth in the Recipient's Grant Notice. The Grant shall give the Recipient the right, upon vesting, to an equal number of shares of $0.625 par value common stock of the Company ("Stock"). At the time of the Grant, the Recipient may elect to defer all or any portion of the RSUs in the Deferred Delivery Plan (the "DDP").

2. Vesting and Payment of Stock. Subject to the provisions of sections 3 and 4 of this Agreement, the entitlement to receive the number of shares of Stock pursuant to the RSUs comprising the Grant Amount shall vest in accordance with the schedule set forth in the Grant Notice (the "Vesting Period"); provided that the Recipient remains employed as an Eligible Person on such applicable vesting dates. Unless the Recipient elected to defer the RSU into the DDP, such Stock, subject to applicable withholding, shall be transferred by the Company to the Recipient within thirty (30) days of the vesting date (other than upon death or Disability). To the extent that the Recipient elected to defer the RSUs into the DDP and sections 3 and 4 do not apply, when the RSUs vest, they shall be transferred to the DDP and paid thereafter to the Recipient as specified under the terms of the DDP.

3. Termination of Employment, Retirement, Death, or Disability. Except as set forth below in this section 3 and in section 4 of this Agreement, each Grant shall be subject to the condition that the Recipient has remained an Eligible Person from the award of the Grant of RSUs until the applicable vesting date as follows:

(a) If the Recipient voluntarily leaves the employment of the Company (other than for reason of Retirement), or if the employment of the Recipient is terminated by the Company for any reason or no reason, any RSUs granted to the Recipient pursuant to the Grant Notice not previously vested shall thereafter be void and forfeited for all purposes.

(b) If the Recipient leaves the employment of the Company by reason of Retirement, the RSUs granted to the Recipient pursuant to the Grant Notice not previously vested shall continue to vest following the Recipient's termination of employment by reason of Retirement as if the Recipient remained an Eligible Person in the employ of the Company, provided that such Recipient shall be entitled to continue vesting only if such Recipient satisfies the Retirement Conditions set forth in section 5 below (except in the case of death) and only with respect to the specified percentage of such unvested RSUs set forth in Exhibit "A" for a certain combination of age and Years of Service attained by the Recipient as of the Recipient's Retirement under the Matrix set forth in Exhibit "A".

(c) A Recipient shall become 100% vested in all RSUs under the Grant Notice on the date the Recipient dies while employed by the Company regardless whether Recipient has accepted the Grant, or on the date the Recipient is no longer employed by the Company by reason of Disability, or, only in the case of death, while continuing to vest pursuant to section 3(b) of this Agreement. Payment shall be made as soon as administratively practicable, but in no event (i) in the case of death, shall the payment occur later than the last day of the calendar year following the calendar year in which such death occurs or (ii) in the case of cessation of employment by reason of Disability, shall the payment occur later than thirty (30) days following the date the Recipient is determined to be Disabled and is no longer employed by the Company. If clause (ii) is applicable and the period from the date on which the Recipient is determined to be Disabled and is no longer employed by the Company to the date under clause (ii) spans two consecutive calendar years, payment shall be made in the second calendar year of such consecutive calendar years. Such payment shall be made to the Recipient's designated beneficiary, legal representatives, heirs, or legatees, as applicable. Each Recipient may designate a beneficiary on a form approved by the Committee.

4. Change of Control. Pursuant to Section 13.1(c)(iii) and (d) of the Plan, the following provisions of this section 4 of the Agreement shall supersede Sections 13.1(a), (b) and (c) of the Plan. Without any further action by the Committee or the Board, in the event of a Recipient's Involuntary Termination or Voluntary Termination with Cause occurring on or after a Change of Control during the Vesting Period, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date of his or her Involuntary Termination or Voluntary Termination with Cause. Subject to section 12(d) of this Agreement, payment shall occur within thirty (30) days following the date of such Involuntary Termination or Voluntary Termination with Cause, subject to required tax withholding. Further, in the event of a Change of Control following the Recipient's termination of employment by reason of Retirement while the Recipient is continuing to vest in the RSUs pursuant to section 3(b) of this Agreement, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date of the Change of Control (including those excluded by the specified percentage set forth in Exhibit "A"). Subject to section 12(d) of this Agreement, the Recipient, if the Recipient terminates employment on account of Retirement prior to the occurrence of a Change of Control, shall receive payment with respect to 100% of the fully vested RSUs within thirty (30) days of the date of a 409A Change of Control, or if the Change of Control is not a 409A Change of Control, on the remaining vesting dates during the Vesting Period in the amount of 1/3 (on each of the remaining vesting dates) of the RSUs awarded as of the Grant Date, subject to required tax withholding. Further still, in the event of a Change of Control prior to the Recipient's termination of employment by reason of Retirement during the Vesting Period, the Recipient shall become 100% fully vested in the unvested RSUs granted to the Recipient pursuant to the Grant Notice as of the date the Recipient terminates employment by reason of Retirement (including those excluded by the specified percentage set forth in Exhibit "A"). For the purpose of vesting as set forth in the prior sentence, a Recipient's Involuntary Termination or Voluntary Termination with Cause after a Change of Control shall be deemed a termination by reason of Retirement. Subject to section 12(d) of this Agreement, the Recipient, who terminates employment by reason of Retirement after a Change of Control, shall receive payment with respect to 100% of the fully vested RSUs on the remaining vesting dates during the Vesting Period in the amount of 1/3 (on each of the remaining vesting dates) of the RSUs awarded as of the Grant Date, subject to required tax withholding.

5. Conditions to Post-Retirement Vesting. If the Recipient has attained age 55 and a certain combination of age and Years of Service set forth in the Matrix in Exhibit “A” attached hereto and terminates employment with the Company and the Affiliates by reason of Retirement, it is agreed by the Company and the Recipient that:

(a) subject to the provisions of this section 5(a) and sections 5(b) and 5(c), such Recipient shall continue to vest in the specified percentage of unvested RSUs set forth in Exhibit “A”, for the combination of age and Years of Service attained by such Recipient as of his or her Retirement under the Matrix set forth in Exhibit “A”, following the date of his or her termination by reason of Retirement as if the Recipient continued in employment as an Eligible Person provided that the Grant Date of the unvested RSUs is prior to such termination date in an amount of time which allows the Recipient to provide the written notice as follows and the Recipient has provided advance written notice not before three (3) months following the Grant Date and not less than the number of months prior to such termination date as set forth in the Schedule below to Apache Corporation’s Vice President, Human Resources, or his or her delegate, and to his or her direct manager, regarding the Recipient’s intent to terminate employment for reason of Retirement; provided, however, a Recipient who is at least age 55 and attained the necessary combination of age and Years of Service under the Matrix set forth in Exhibit “A” for Retirement need not provide such advance written notice of his or her intent to terminate employment by reason of Retirement if the Company elects to require such Recipient to, or (as part of a reduction in force or otherwise in writing in exchange for a written release) offers such Recipient the opportunity to, terminate employment with the Company by reason of Retirement:

Age	Advance Written Notice
65 or older	3 months
between (and including) 55 and 64	6 months

; and it is further agreed that

(b) in consideration for the continued vesting treatment afforded to the Recipient under section 5(a), Recipient shall, during the continuing Vesting Period after Retirement (the “Continued Vesting Period”), refrain from becoming employed by, or consulting with, or becoming substantially involved in the business of, any business that competes with the Company or its Affiliate in the business of exploration or production of oil or natural gas wherever from time to time conducted throughout the world (a “Competitive Business”) and Recipient shall provide to the Company, upon Company’s request, (x) a written certification, in a form provided by or satisfactory to the Company, as to Recipient’s compliance with the forgoing conditions and/or (y) his/her U.S. Individual Income Tax Return for any return filed by the Recipient which relates to any time during the Continued Vesting Period to allow the Company to verify that Recipient has complied with the foregoing conditions; provided, that the Recipient may purchase and hold for investment purposes less than five percent (5%) of the shares of any Competitive Business whose shares are regularly traded on a national securities exchange or inter-dealer quotation system, and provided further, that the Recipient may provide services solely as a director of any Competitive Business whose shares are regularly traded on a national securities exchange or inter-dealer quotation system if, during the

Continued Vesting Period, (i) the Recipient only attends board and board committee meetings, votes on recommendations of management, and discharges his/her fiduciary obligations under the law and (ii) the Recipient is not involved in, and does not advise or consult on, the marketing, government relations, customer relations, or the day-to-day management, supervision, or operations of such Competitive Business; and it is further agreed that

(c) in consideration for the continued vesting treatment afforded to the Recipient under section 5(a), Recipient shall, during the Continued Vesting Period, refrain from making, or causing or assisting any other person to make, any oral or written communication to any third party about the Company, any Affiliate and/or any of the employees, officers or directors of the Company or any Affiliate which impugns or attacks, or is otherwise critical of, the reputation, business or character of such entity or person; or that discloses private or confidential information about their business affairs; or that constitutes an intrusion into their seclusion or private lives; or that gives rise to unreasonable publicity about their private lives; or that places them in a false light before the public; or that constitutes a misappropriation of their name or likeness.

Notwithstanding the foregoing provisions of this section 5 of the Agreement, (i) in the event that the Recipient fails to satisfy any of the conditions set forth in sections 5(a), (b) and (c) above, the Recipient shall not be entitled to vest in any unvested RSUs after the date of Retirement and the unvested RSUs subject to this Agreement shall be forfeited and (ii) the Recipient shall not have any right to continue to vest upon Retirement in any future awards granted under the Plan once the Recipient provides the notice of Retirement as set forth in section 5(a) above.

6. Prohibited Activity. In consideration for this Grant and except as permitted under section 5(b) above, the Recipient agrees not to engage in any “Prohibited Activity” while employed by the Company or within three years after the date of the Recipient’s termination of employment. A “Prohibited Activity” will be deemed to have occurred, as determined by the Committee in its sole and absolute discretion, if the Recipient (i) divulges any non-public, confidential or proprietary information of the Company, but excluding information that (a) becomes generally available to the public other than as a result of the Recipient’s public use, disclosure, or fault, or (b) becomes available to the Recipient on a non-confidential basis after the Recipient’s employment termination date from a source other than the Company prior to the public use or disclosure by the Recipient, provided that such source is not bound by a confidentiality agreement or otherwise prohibited from transmitting the information by contractual, legal or fiduciary obligation; (ii) directly or indirectly, consults with or becomes affiliated with, participate or engage in, or becomes employed by any business that is competitive with the Company, wherever from time to time conducted throughout the world, including situations where the Recipient solicits or participates in or assists in any way in the solicitation or recruitment, directly or indirectly, of any employees of the Company; or (iii) engages in publishing any oral or written statements about the Company, and/or any of its directors, officers, or employees that are disparaging, slanderous, libelous, or defamatory; or that disclose private or confidential information about their business affairs; or that constitute an intrusion into their seclusion or private lives; or that give rise to unreasonable publicity about their private lives; or that place them in a false light before the public; or that constitute a misappropriation of their name or likeness.

7. Payment and Tax Withholding. Upon receipt of any entitlement to Stock under this Agreement and, if applicable, upon the Recipient's attainment of eligibility to terminate employment by reason of Retirement pursuant to section 3(b), the Recipient shall make appropriate arrangements with the Company to provide for the amount of minimum tax and social security withholding, if any, required by law, including without limitation Sections 3102 and 3402 or any successor section(s) of the Internal Revenue Code and applicable state and local income and other tax laws. Upon receipt of entitlement to Stock under this Agreement, each payment of the Payout Amount shall be made in shares of Stock, determined by the Committee, such that the withheld number of shares of Stock shall be sufficient to cover the withholding amount required by this section (including any amount to cover benefit tax charges arising thereon). The payment of a Payout Amount shall be based on the Fair Market Value of the shares of Stock on the applicable date of vesting to which such tax withholding relates. Where appropriate, shares of Stock shall be withheld by the Company to satisfy applicable tax withholding requirements rather than paid directly to the Recipient.

8. No Ownership Rights Prior to Issuance of Stock. Neither the Recipient nor any other person shall become the beneficial owner of the Stock underlying the Grant, nor have any rights of a shareholder (including, without limitation, dividend and voting rights) with respect to any such Stock, unless and until and after such Stock has been actually issued to the Recipient and transferred on the books and records of the Company or its agent in accordance with the terms of the Plan and this Agreement.

9. Non-Transferability of Grant. A Grant shall not be transferable otherwise than by testamentary will or the laws of descent and distribution, or in accordance with a valid beneficiary designation on a form approved by the Committee, subject to the conditions and exceptions set forth in Section 15.2 of the Plan.

10. No Right to Continued Employment. Neither the RSUs or Stock issued pursuant to a Grant nor any terms contained in this Agreement shall confer upon the Recipient any express or implied right to be retained in the employment or service of the Company for any period, nor restrict in any way the right of the Company, which right is hereby expressly reserved, to terminate the Recipient's employment or service at any time for any reason or no reason. The Recipient acknowledges and agrees that any right to receive RSUs or Stock pursuant to a Grant is earned only by continuing as an employee of the Company at the will of the Company, or satisfaction of any other applicable terms and conditions contained in the Plan and this Agreement, and not through the act of being hired, being granted the Grant, or acquiring RSUs or Stock pursuant to the Grant hereunder.

11. The Plan. In consideration for this Grant, the Recipient agrees to comply with the terms of the Plan and this Agreement. This Agreement is subject to all the terms, provisions and conditions of the Plan, which are incorporated herein by reference, and to such regulations as may from time to time be adopted by the Committee. Unless defined herein, capitalized terms are used herein as defined in the Plan. In the event of any conflict between the provisions of the Plan and this Agreement, the provisions of the Plan shall control, and this Agreement shall be deemed to be modified accordingly. The Plan and the prospectus describing the Plan can be found on the Company's HR intranet and the Plan document can be found on Fidelity's website

(netbenefits.fidelity.com). A paper copy of the Plan and the prospectus shall be provided to the recipient upon the Recipient's written request to the Company at 2000 Post Oak Blvd., Suite 100, Houston, Texas 77056-4400, Attention: Corporate Secretary.

12. Compliance with Laws and Regulations.

(a) The Grant and any obligation of the Company to deliver RSUs or Stock hereunder shall be subject in all respects to (i) all applicable laws, rules and regulations and (ii) any registration, qualification, approvals or other requirements imposed by any government or regulatory agency or body which the Committee shall, in its discretion, determine to be necessary or applicable. Moreover, the Company shall not deliver any certificates for Stock to the Recipient or any other person pursuant to this Agreement if doing so would be contrary to applicable law. If at any time the Company determines, in its discretion, that the listing, registration or qualification of Stock upon any national securities exchange or under any applicable law, or the consent or approval of any governmental regulatory body, is necessary or desirable, the Company shall not be required to deliver any certificates for Stock to the Recipient or any other person pursuant to this Agreement unless and until such listing, registration, qualification, consent or approval has been effected or obtained, or otherwise provided for, free of any conditions not acceptable to the Company.

(b) It is intended that the issuance of any Stock received in respect of the Grant shall have been registered under the Securities Act of 1933 ("Securities Act"). If the Recipient is an "affiliate" of the Company, as that term is defined in Rule 144 under the Securities Act ("Rule 144"), the Recipient may not sell the Stock received except in compliance with Rule 144. Certificates representing Stock issued to an "affiliate" of the Company may bear a legend setting forth such restrictions on the disposition or transfer of the Stock as the Company deems appropriate to comply with Federal and state securities laws.

(c) If, at any time, a registration statement with respect to the issuance of the Stock is not effective under the Securities Act, and/or there is no current prospectus in effect under the Securities Act with respect to the Stock, the Recipient shall execute, prior to the delivery of any Stock to the Recipient by the Company pursuant to this Agreement, an agreement (in such form as the Company may specify) in which the Recipient represents and warrants that the Recipient is purchasing or acquiring the Stock acquired under this Agreement for the Recipient's own account, for investment only and not with a view to the resale or distribution thereof, and represents and agrees that any subsequent offer for sale or distribution of any kind of such Stock shall be made only pursuant to either (i) a registration statement on an appropriate form under the Securities Act, which registration statement has become effective and is current with regard to the Stock being offered or sold, or (ii) a specific exemption from the registration requirements of the Securities Act, but in claiming such exemption the Recipient shall, prior to any offer for sale of such Stock, obtain a prior favorable written opinion, in form and substance satisfactory to the Company, from counsel for or approved by the Company, as to the applicability of such exemption thereto.

(d) This Grant is intended to comply with, or be exempt from, the applicable requirements of Section 409A of the Code and the rules and regulations issued thereunder and shall be administered accordingly. Notwithstanding anything in this Agreement to the contrary, if the RSUs constitute "deferred compensation" under Section 409A of the Code and any RSUs become payable pursuant to the Recipient's termination of employment, settlement of the RSUs shall be delayed for a period of six months after the Recipient's termination of employment if the Recipient is a "specified employee" as defined under Code Section 409A(a)(2)(B)(i) and if required pursuant to Section 409A of the Code. If settlement of the RSU is delayed, the RSUs shall be settled on the first day of the first calendar month following the end of the six-month delay period. If the Recipient dies during the six-month delay, the RSUs shall be settled and paid to the Recipient's designated beneficiary, legal representatives, heirs or legatees, as applicable, as soon as practicable after the date of death. Notwithstanding any provisions to the contrary herein, payments made with respect to this Grant may only be made in a manner and upon an event permitted by Section 409A of the Code, and all payments to be made upon a termination of employment hereunder may only be made upon a "separation from service", as such term is defined in Section 11.1 of the Plan. Recipient shall not have any right to determine a date of payment of any amount under this Agreement. This Agreement may be amended without the consent of the Recipient in any respect deemed by the Board or the Committee to be necessary in order to preserve compliance with Section 409A of the Code. If the Grant and this Agreement is subject to Section 409A of the Code and the rules and regulations issued thereunder, then the vesting date shall be the "designated payment date" or "specified date" under Treasury Regulation 1.409A-3(d).

13. Notices. Unless otherwise provided in this Agreement, all notices by the Recipient or the Recipient's assignees shall be addressed to the Administrative Agent, Fidelity, through the Recipient's account at netbenefits.fidelity.com, or such other address as the Company may from time to time specify. All notices to the Recipient shall be addressed to the Recipient at the Recipient's address in the Company's records.

14. Other Plans. The Recipient acknowledges that any income derived from the Grant shall not affect the Recipient's participation in, or benefits under, any other benefit plan or other contract or arrangement maintained by the Company or any Affiliate.

15. Terms of Employment. The Plan is a discretionary plan. The Recipient hereby acknowledges that neither the Plan nor this Agreement forms part of his terms of employment and nothing in the Plan may be construed as imposing on the Company or any Affiliate a contractual obligation to offer participation in the Plan to any employee of the Company or any Affiliate. The Company or any Affiliate is under no obligation to grant further RSUs or Stock to any Recipient under the Plan. The Recipient hereby acknowledges that if he ceases to be an employee of the Company or any Affiliate for any reason or no reason, he shall not be entitled by way of compensation for loss of office or otherwise howsoever to any sum.

16. Data Protection. By accepting this Agreement (whether by electronic means or otherwise), the Recipient hereby consents to the holding and processing of personal data provided by him to the Company for all purposes necessary for the operation of the Plan. These include, but are not limited to:

(a) administering and maintaining Recipient records;

(b) providing information to any registrars, brokers or third party administrators of the Plan; and

(c) providing information to future purchasers of the Company or the business in which the Recipient works.

17. Severability. If any provision of this Agreement is held invalid or unenforceable, the remainder of this Agreement shall nevertheless remain in full force and effect, and if any provision is held invalid or unenforceable with respect to particular circumstances, it shall nevertheless remain in full force and effect in all other circumstances, to the fullest extent permitted by law.

*****

Exhibit "A"

Apache Corporation
Retirement Matrix

Age at Retirement	Points (Age at Retirement + Years of Service)																				
	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
70	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%
69	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%
68	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%
67	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
66	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
65	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
64	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
63	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
62	0%	0%	0%	0%	0%	0%	0%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
61	0%	0%	0%	0%	0%	0%	50%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
60	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	100%
59	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
58	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
57	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
56	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%
55	0%	0%	0%	0%	0%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	75%	100%

0%
50%
75%
100%

Exhibit 21.1

Apache Corporation (a Delaware corporation)
Listing of Subsidiaries as of December 31, 2019

Exact Name of Subsidiary and Name under which Subsidiary does Business	Jurisdiction of Incorporation or Organization
Alta Vista Oil Corporation	Delaware
*Altus Midstream Company	Delaware
*Altus Midstream GP LLC	Delaware
**Altus Midstream Subsidiary GP LLC	Delaware
Apache Alaska Corporation	Delaware
Apache Corporation (New Jersey)	New Jersey
Apache Crude Oil Marketing, Inc.	Delaware
Apache Deepwater LLC	Delaware
Apache Dominican Republic Corporation LDC	Cayman Islands
Apache Fertilizer Holdings II Corporation LDC	Cayman Islands
Apache Finance Louisiana Corporation	Delaware
Apache Foundation	Minnesota
Apache Gathering Company	Delaware
Apache Holdings, Inc.	Delaware
Apache International Employment Inc.	Delaware
Apache Louisiana Holdings LLC	Delaware
Apache Louisiana Minerals LLC	Delaware
Apache Marketing, Inc.	Delaware
Apache Midstream LLC	Delaware
Alpine High Oil Pipeline LLC	Delaware
Apache Natural Gas Transportation Fuels LLC	Delaware
Apache North America LLC	Delaware
Apache Oil Corporation	Texas
Apache Overseas LLC	Delaware
Apache Asia Pacific Corporation LDC	Cayman Islands
Apache East Ras Budran Corporation LDC	Cayman Islands
Apache Egypt Investment Corporation LDC	Cayman Islands
Apache Egypt Holdings III Corporation LDC	Cayman Islands
Apache Egypt GP Corporation LDC	Cayman Islands
Apache Egypt Holdings II Corporation LDC	Cayman Islands
Apache Abu Gharadig Corporation LDC	Cayman Islands
Apache East Bahariya Corporation LDC	Cayman Islands
Apache El Diyur Corporation LDC	Cayman Islands
Apache Faiyum Corporation LDC	Cayman Islands
Apache Khalda Corporation LDC	Cayman Islands
Apache Egypt Midstream Holdings I LDC	Cayman Islands
Apache Khalda II Corporation LDC	Cayman Islands
Apache Matruh Corporation LDC	Cayman Islands
Apache Mediterranean Corporation LDC	Cayman Islands
Apache North Bahariya Corporation LDC	Cayman Islands
Apache North El Diyur Corporation LDC	Cayman Islands
Apache North Tarek Corporation LDC	Cayman Islands
Apache Qarun Corporation LDC	Cayman Islands

Exhibit 21.1

Apache Corporation (a Delaware corporation)
Listing of Subsidiaries as of December 31, 2019

Exact Name of Subsidiary and Name under which Subsidiary does Business	Jurisdiction of Incorporation or Organization
Apache Qarun Exploration Company LDC	Cayman Islands
Apache Shushan Corporation LDC	Cayman Islands
Apache South Umbarka Corporation LDC	Cayman Islands
Apache Umbarka Corporation LDC	Cayman Islands
Apache West Kalabsha Corporation LDC	Cayman Islands
Apache West Kanayis Corporation LDC	Cayman Islands
Apache UK Corporation LDC	Cayman Islands
Apache International Corporation LDC	Cayman Islands
Apache North Sea Limited	England and Wales
Apache UK Pension Trustee Ltd.	England and Wales
Apache North Sea Production Limited	England and Wales
Apache UK Investment Limited	England and Wales
Apache Beryl I Limited	Cayman Islands
Apache EMEA Corporation LDC	Cayman Islands
Apache Exploration LDC	Cayman Islands
Apache Fertilizer Holdings Corporation LDC	Cayman Islands
Apache International Finance S.a.r.l.	Luxembourg
Apache International Finance II S.a.r.l.	Luxembourg
Apache Latin America II Corporation LDC	Cayman Islands
Apache Netherlands Investment B.V.	The Netherlands
Apache Suriname Corporation LDC	Cayman Islands
Apache Netherlands Investment II B.V.	The Netherlands
Apache Suriname 58 Holdings Corporation LDC	Cayman Islands
Apache Suriname 58 Corporation LDC	Cayman Islands
Apache Overseas Holdings LLC	Delaware
Apache Switzerland Holdings AG	Switzerland
Apache Kenya Holdings LLC	Delaware
Apache Kenya Limited	Kenya
Apache Overseas Holdings II, Inc.	Delaware
Apache Finance Pty Limited	Australian Capital Territory
Apache Ravensworth Corporation LDC	Cayman Islands
Apache Shady Lane Ranch Inc.	Delaware
Apache Shelf Exploration LLC	Delaware
Apache Shelf, Inc.	Delaware
Apache Texas Property Holding Company LLC	Delaware
Apache UK Limited	England and Wales
Apache Well Containment LLC	Delaware
Apache Western Exploration LLC	Delaware
BLPL Holdings LLC	Delaware
Clear Creek Hunting Preserve, Inc.	Wyoming
Cordillera Energy Partners III, LLC	Colorado
Cottonwood Aviation, Inc.	Delaware
CV Energy Corporation	Delaware

Exhibit 21.1

Apache Corporation (a Delaware corporation)
Listing of Subsidiaries as of December 31, 2019

Exact Name of Subsidiary and Name under which Subsidiary does Business	Jurisdiction of Incorporation or Organization
DEK Energy LLC	Delaware
Apache Finance Canada LLC	Delaware
Apache Permian Basin Investment LLC	Delaware
Apache Permian Basin Corporation	Delaware
Apache Permian Exploration and Production LLC	Delaware
LeaCo New Mexico Exploration and Production LLC	Delaware
Permian Basin Joint Venture LLC (95%)	Delaware
ZPZ Delaware I LLC	Delaware
Apache Canada Management LLC	Delaware
Apache Canada Holdings LLC	Delaware
Apache Canada Management II LLC	Delaware
Apache Finance Canada III LLC	Delaware
Apache Finance Canada IV LLC	Delaware
Stallion Canada Holdings LLC	Delaware
Edge Petroleum Exploration Company	Delaware
Granite Operating Company	Texas
Phoenix Exploration Resources, Ltd.	Delaware
Texas International Company	Delaware
Texas and New Mexico Exploration LLC	Delaware
ZPZ Acquisitions, Inc.	Delaware
ZPZ Delaware II LLC	Delaware
ZPZ Delaware III LLC	Delaware
Phoenix Exploration Louisiana C LLC (75%)	Delaware

***Apache Corporation owns a 79.19% voting interest and a 9.76% economic ownership interest.**
****Apache Corporation owns a 79.19% voting and economic interest.**

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statements (Form S-3 Nos. 333-57785, 333-75633, 333-32580, 333-105536, 333-155884, 333-174429, 333-197491, and 333-219345) of Apache Corporation and in the related Prospectuses,
(2) Registration Statements (Form S-4 Nos. 333-107934 and 333-166964) of Apache Corporation and in the related Prospectuses, and
(3) Registration Statements (Form S-8 Nos. 33-59721, 33-63817, 333-26255, 333-32557, 333-36131, 333-31092, 333-48758, 333-97403, 333-102330, 333-103758, 333-106213, 333-125232, 333-125233, 333-135044, 333-143115, 333-170533, 333-175250, 333-178672, 333-190619, and 333-212237) of Apache Corporation;

of our reports dated February 27, 2020, with respect to the consolidated financial statements of Apache Corporation and subsidiaries and the effectiveness of internal control over financial reporting of Apache Corporation and subsidiaries, included in this Annual Report (Form 10-K) of Apache Corporation for the year ended December 31, 2019.

/s/ ERNST & YOUNG LLP

Houston, Texas
February 27, 2020

RYDER SCOTT COMPANY
PETROLEUM CONSULTANTS

TBPE REGISTERED ENGINEERING FIRM F-1580 FAX (713) 651-0849
1100 LOUISIANA SUITE 4600 HOUSTON, TEXAS 77002-5294 TELEPHONE (713) 651-9191

EXHIBIT 23.2

Consent of Ryder Scott Company, L.P.

As independent petroleum engineers, we hereby consent to the incorporation by reference in this Form 10-K of Apache Corporation to our Firm's name and our Firm's review of the proved oil and gas reserve quantities of Apache Corporation as of December 31, 2019, to the incorporation by reference of our Firm's name and review into Apache Corporation's previously filed Registration Statements on Form S-3 (Nos. 333-57785, 333-75633, 333-32580, 333-105536, 333-155884, 333-174429, 333-197491, and 333-219345), on Form S-4 (Nos. 333-107934 and 333-166964), and on Form S-8 (Nos. 33-59721, 33-63817, 333-26255, 333-32557, 333-36131, 333-31092, 333-48758, 333-97403, 333-102330, 333-103758, 333-106213, 333-125232, 333-125233, 333-135044, 333-143115, 333-170533, 333-175250, 333-178672, 333-190619, and 333-212237), and to the inclusion of our report, dated January 27, 2020, as an exhibit to this Form 10-K filed with the Securities and Exchange Commission.

/s/ Ryder Scott Company, L.P.

RYDER SCOTT COMPANY, L.P.
TBPE Firm Registration No. F-1580

Houston, Texas
February 27, 2020

SUITE 800, 350 7TH AVENUE, S.W. CALGARY, ALBERTA T2P 3N9 TEL (403) 262-2799 FAX (403) 262-2790
633 17TH STREET, SUITE 1700 DENVER, COLORADO 80202 TEL (303) 339-8110

EXHIBIT 31.1

CERTIFICATIONS

I, John J. Christmann IV, certify that:

1. I have reviewed this Annual Report on Form 10-K of Apache Corporation;
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 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 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 27, 2020

/s/ John J. Christmann IV

John J. Christmann IV
Chief Executive Officer and President
(principal executive officer)

EXHIBIT 31.2

CERTIFICATIONS

I, Stephen J. Riney, certify that:

1. I have reviewed this Annual Report on Form 10-K of Apache Corporation;
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 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 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 27, 2020

/s/ Stephen J. Riney

Stephen J. Riney
Executive Vice President and Chief Financial Officer
(principal financial officer)

EXHIBIT 32.1

APACHE CORPORATION

Certification of Principal Executive Officer
and Principal Financial Officer

I, John J. Christmann IV, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge, the Annual Report on Form 10-K of Apache Corporation for the period ending December 31, 2019, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. §78m or §78o (d)) and that information contained in such report fairly represents, in all material respects, the financial condition and results of operations of Apache Corporation.

Date: February 27, 2020

/s/ John J. Christmann IV

By:	John J. Christmann IV
Title:	Chief Executive Officer and President
	(principal executive officer)

I, Stephen J. Riney, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge, the Annual Report on Form 10-K of Apache Corporation for the period ending December 31, 2019, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. §78m or §78o (d)) and that information contained in such report fairly represents, in all material respects, the financial condition and results of operations of Apache Corporation.

Date: February 27, 2020

/s/ Stephen J. Riney

By:	Stephen J. Riney
Title:	Executive Vice President and Chief Financial Officer
	(principal financial officer)

Exhibit 99.1

APACHE CORPORATION

Estimated

Future Reserves

Attributable to Certain

Leasehold and Royalty Interests

and

Derived Through Certain Production Sharing Contracts

SEC Parameters

As of

December 31, 2019

/s/ Ali A. Porbandarwala

Ali A. Porbandarwala, P.E.
TBPE License No. 107652
Senior Vice President

[SEAL]

RYDER SCOTT COMPANY, L.P.
TBPE Firm Registration No. F-1580

RYDER SCOTT COMPANY
PETROLEUM CONSULTANTS
TBPE REGISTERED ENGINEERING FIRM F-1580 FAX (713) 651-0849
1100 LOUISIANA SUITE 4600 HOUSTON, TEXAS 77002-5294 TELEPHONE (713) 651-9191

January 27, 2020

Apache Corporation
2000 Post Oak Boulevard, Suite 100
Houston, Texas 77056-4400

Ladies and Gentlemen:

At the request of Apache Corporation (Apache), Ryder Scott Company, L.P. (Ryder Scott) has conducted a reserves audit of the estimates of the proved reserves as of December 31, 2019 prepared by Apache's engineering and geological staff based on the definitions and disclosure guidelines of the United States Securities and Exchange Commission (SEC) contained in Title 17, Code of Federal Regulations, Modernization of Oil and Gas Reporting, Final Rule released January 14, 2009 in the Federal Register (SEC regulations). Our third party reserves audit, completed on January 17, 2020 and presented herein, was prepared for public disclosure by Apache in filings made with the SEC in accordance with the disclosure requirements set forth in the SEC regulations. The estimated reserves shown herein represent Apache's estimated net reserves attributable to the leasehold and royalty interests and derived through certain production sharing contracts in certain properties owned by Apache and the portion of those reserves reviewed by Ryder Scott, as of December 31, 2019. The properties reviewed by Ryder Scott incorporate Apache's reserves determinations and are attributable to the interests of Apache Corporation (U.S.A), Apache Egypt Companies (Egypt), and Apache North Sea Limited (United Kingdom).

The properties reviewed by Ryder Scott account for a portion of Apache's total net proved reserves as of December 31, 2019. Based on the estimates of total net proved reserves prepared by Apache, the reserves audit conducted by Ryder Scott addresses 85.6 percent of the total proved developed net liquid hydrocarbon reserves, 84.9 percent of the total proved developed net gas reserves, 82.1 percent of the total proved undeveloped net liquid hydrocarbon reserves, and 70.2 percent of the total proved undeveloped net gas reserves of Apache.

The wells or locations for which estimates of reserves were reviewed by Ryder Scott were selected by Apache. Apache informed Ryder Scott that the selected reserves for each country included at least 83.0 percent or more of the total proved discounted future net income at 10 percent attributable to the respective country's total interests of Apache (coverage) based on SEC hydrocarbon price parameters as of December 31, 2019. Total coverage of world-wide reserves is 87.2 percent of the total proved discounted future net income at 10 percent.

As prescribed by the Society of Petroleum Engineers in Paragraph 2.2(f) of the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information (SPE auditing standards), a reserves audit is defined as "the process of reviewing certain of the pertinent facts interpreted and assumptions made that have resulted in an estimate of reserves and/or Reserves Information prepared by others and the rendering of an opinion about (1) the appropriateness of the methodologies employed; (2) the adequacy and quality of the data relied upon; (3) the depth and thoroughness of the reserves estimation process; (4) the classification of reserves appropriate to the relevant definitions used; and (5) the reasonableness of the estimated reserve quantities and/or Reserves Information." Reserves Information may consist of various estimates pertaining to the extent and value of petroleum properties.

Based on our review, including the data, technical processes and interpretations presented by Apache, it is our opinion that the overall procedures and methodologies utilized by Apache in preparing their estimates of the proved reserves as of December 31, 2019 comply with the current SEC regulations and that the overall proved reserves for the reviewed properties as estimated by Apache are, in the aggregate, reasonable within the established audit tolerance guidelines of 10 percent as set forth in the SPE auditing standards.

The estimated reserves presented in this report are related to hydrocarbon prices. Apache has informed us that in the preparation of their reserves and income projections, as of December 31, 2019, they used average prices during the 12-month period prior to the “as of date” of this report, determined as the unweighted arithmetic averages of the prices in effect on the first-day-of-the-month for each month within such period, unless prices were defined by contractual arrangements, as required by the SEC regulations. Actual future prices may vary considerably from the prices required by SEC regulations. The recoverable reserves volumes have a direct relationship to the hydrocarbon prices actually received; therefore, volumes of reserves actually recovered may differ significantly from the estimated quantities presented in this report. The net reserves as estimated by Apache attributable to Apache's interest and entitlement in properties that we reviewed and the reserves of properties that we did not review are summarized below:

SEC PARAMETERS
Estimated Net Proved Reserves
Certain Leasehold and Royalty Interests and
Derived Through Certain Production Sharing Contracts of
Apache Corporation (Total All Countries)

As of December 31, 2019

	% Crude Oil & Condensate Reserves Reviewed	% Natural Gas Liquids Reserves Reviewed	% Gas Reserves Reviewed	Reviewed by Ryder Scott			Not Reviewed			Total		
				Crude Oil & Condensate MBarrels	Natural Gas Liquids MBarrels	Sales Gas MMCF	Crude Oil & Condensate MBarrels	Natural Gas Liquids MBarrels	Sales Gas MMCF	Crude Oil & Condensate MBarrels	Natural Gas Liquids MBarrels	Sales Gas MMCF
Developed	85.4	86.1	84.9	413,089	139,335	1,260,743	70,341	22,442	224,905	483,430	161,777	1,485,648
Undeveloped	82.6	80.7	70.2	55,837	19,627	109,743	11,757	4,693	46,605	67,594	24,320	156,348
Total Proved	85.1	85.4	83.5	468,926	158,962	1,370,486	82,098	27,135	271,510	551,024	186,097	1,641,996

SEC PARAMETERS
Estimated Net Proved Reserves
Certain Leasehold and Royalty Interests and
Derived Through Certain Production Sharing Contracts of
Apache Corporation (Summary by Country)

As of December 31, 2019

	% Crude Oil & Condensate Reserves Reviewed	% Natural Gas Liquids Reserves Reviewed	% Gas Reserves Reviewed	Reviewed by Ryder Scott			Not Reviewed			Total		
				Crude Oil & Condensate MBarrels	Natural Gas Liquids MBarrels	Sales Gas MMcf	Crude Oil & Condensate MBarrels	Natural Gas Liquids MBarrels	Sales Gas MMcf	Crude Oil & Condensate MBarrels	Natural Gas Liquids MBarrels	Sales Gas MMcf
USA												
Developed	86.1	86.3	85.0	239,553	137,028	803,969	38,592	21,766	141,968	278,145	158,794	945,937
Undeveloped	83.0	80.5	79.0	38,773	18,982	90,923	7,943	4,587	24,117	46,716	23,569	115,040
Total Proved	85.7	85.5	84.3	278,326	156,010	894,892	46,535	26,353	166,085	324,861	182,363	1,060,977
Egypt												
Developed	87.3	87.3	89.9	90,456	582	389,718	13,117	84	43,665	103,573	666	433,383
Undeveloped	71.2	13	12.3	7,713	12	3,043	3,117	79	21,661	10,830	91	24,704
Total Proved	85.8	78.5	85.7	98,169	594	392,761	16,234	163	65,326	114,403	757	458,087
United Kingdom												
Developed	81.7	74.4	63.1	83,080	1,725	67,056	18,632	592	39,272	101,712	2,317	106,328
Undeveloped	93.1	95.9	95.0	9,351	633	15,777	697	27	827	10,048	660	16,604
Total Proved	82.7	79.2	67.4	92,431	2,358	82,833	19,329	619	40,099	111,760	2,977	122,932

Liquid hydrocarbons are expressed in standard 42 U.S. gallon barrels and shown herein as thousand of barrels (MBarrels). All gas volumes are reported on an "as sold basis" expressed in millions of cubic feet (MMcf) at the official temperature and pressure bases of the areas in which the gas reserves are located.

Reserves Included in This Report

In our opinion, the proved reserves presented in this report conform to the definition as set forth in the Securities and Exchange Commission's Regulations Part 210.4-10(a). An abridged version of the SEC reserves definitions from 210.4-10(a) entitled "PETROLEUM RESERVES DEFINITIONS" is included as an attachment to this report.

The various proved reserves status categories are defined under the attachment entitled "PETROLEUM RESERVES STATUS DEFINITIONS AND GUIDELINES" in this report. The proved developed non-producing reserves included herein consist of the shut-in and behind pipe status categories.

Reserves are "estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations." All reserves estimates involve an assessment of the uncertainty relating the likelihood that the actual remaining quantities recovered will be greater or less than the estimated quantities determined as of the date the estimate is made. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Unproved reserves are less certain to be recovered than proved reserves and may be further sub-categorized as probable and possible reserves to denote progressively increasing uncertainty in their recoverability. At Apache's request, this report addresses only the proved reserves attributable to the properties reviewed herein.

Proved oil and gas reserves are "those quantities of oil and gas which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward." The proved reserves included herein were estimated using deterministic methods. The SEC has defined reasonable certainty for proved reserves, when based on deterministic methods, as a "high degree of confidence that the quantities will be recovered."

Proved reserves estimates will generally be revised only as additional geologic or engineering data become available or as economic conditions change. For proved reserves, the SEC states that "as changes due to increased availability of geoscience (geological, geophysical, and geochemical), engineering, and economic data are made to the estimated ultimate recovery (EUR) with time, reasonably certain EUR is much more likely to increase or remain constant than to decrease." Moreover, estimates of proved reserves may be revised as a result of future operations, effects of regulation by governmental agencies or geopolitical or economic risks. Therefore, the proved reserves included in this report are estimates only and should not be construed as being exact quantities. They may or may not be actually recovered.

Audit Data, Methodology, Procedure and Assumptions

The estimation of reserves involves two distinct determinations. The first determination results in the estimation of the quantities of recoverable oil and gas and the second determination results in the estimation of the uncertainty associated with those estimated quantities in accordance with the definitions set forth by the Securities and Exchange Commission's Regulations Part 210.4-10(a). The process of estimating the quantities of recoverable oil and gas reserves relies on the use of certain generally accepted analytical procedures. These analytical procedures fall into three broad categories or methods: (1) performance-based methods; (2) volumetric-based methods; and (3) analogy. These methods may be used individually or in combination by the reserves evaluator in the process of estimating the quantities of reserves. Reserves evaluators must select the method or combination of methods which in their professional judgment is most appropriate given the nature and amount of reliable geoscience and engineering data available at the time of the estimate, the established or anticipated performance characteristics of the reservoir being evaluated and the stage of development or producing maturity of the property.

In many cases, the analysis of the available geoscience and engineering data and the subsequent interpretation of this data may indicate a range of possible outcomes in an estimate, irrespective of the method selected by the evaluator. When a range in the quantity of reserves is identified, the evaluator must determine the uncertainty associated with the incremental quantities of the reserves. If the reserves quantities are estimated using the deterministic incremental approach, the uncertainty for each discrete incremental quantity of the reserves is addressed by the reserves category assigned by the evaluator. Therefore, it is the categorization of reserves quantities as proved, probable and/or possible that addresses the inherent uncertainty in the estimated quantities reported. For proved reserves, uncertainty is defined by the SEC as reasonable certainty wherein the "quantities actually recovered are much more likely to be achieved than not." The SEC states that "probable reserves are those additional reserves that are less certain to be recovered than proved reserves but which, together with proved reserves, are as likely as not to be recovered." The SEC states that "possible reserves are those additional reserves that are less certain to be recovered than probable reserves and the total quantities ultimately recovered from a project have a low probability of exceeding proved plus probable plus possible reserves." All quantities of reserves within the same reserves category must meet the SEC definitions as noted above.

Estimates of reserves quantities and their associated reserves categories may be revised in the future as additional geoscience or engineering data become available. Furthermore, estimates of reserves quantities and their associated reserves categories may also be revised due to other factors such as changes in economic conditions, results of future operations, effects of regulation by governmental agencies or geopolitical or economic risks as previously noted herein.

The proved reserves, prepared by Apache, for the properties that we reviewed were estimated by performance methods, the volumetric method, analogy, or a combination of methods. Approximately 90 percent of the proved producing reserves attributable to producing wells and/or reservoirs that we reviewed were estimated by performance methods or a combination of methods. These performance methods include, but may not be limited to, decline curve analysis, material balance and/or reservoir simulation which utilized extrapolations of historical production and pressure data available through November 2019, in those cases where such data were considered to be definitive. The data utilized in this analysis were furnished to Ryder Scott by Apache or obtained from public data sources and were considered sufficient for the purpose thereof. The remaining 10 percent of the proved producing reserves that we reviewed were estimated by the volumetric method, analogy, or a combination of methods. These methods were used where there were inadequate historical performance data to establish a definitive trend and where the use of production performance data as a basis for the reserves estimates was considered to be inappropriate.

Approximately 100 percent of the proved developed non-producing and undeveloped reserves that we reviewed were estimated by the volumetric method or analogy. The volumetric analysis utilized pertinent well and seismic data furnished to Ryder Scott by Apache for our review or which we have obtained from public data sources that were available through November 2019. The data utilized from the analogues in conjunction with well and seismic data incorporated into the volumetric analysis were considered sufficient for the purpose thereof.

To estimate economically recoverable proved oil and gas reserves, many factors and assumptions are considered including, but not limited to, the use of reservoir parameters derived from geological, geophysical and engineering data which cannot be measured directly, economic criteria based on current costs and SEC pricing requirements, and forecasts of future production rates. Under the SEC regulations 210.4-10(a)(22)(v) and (26), proved reserves must be anticipated to be economically producible from a given date forward based on existing economic conditions including the prices and costs at which economic producibility from a reservoir is to be determined. While it may reasonably be anticipated that the future prices received for the sale of production and the operating costs and other costs relating to such production may increase or decrease from those under existing economic conditions, such changes were, in accordance with rules adopted by the SEC, omitted from consideration in conducting this review.

As stated previously, proved reserves must be anticipated to be economically producible from a given date forward based on existing economic conditions including the prices and costs at which economic producibility from a reservoir is to be determined. To confirm that the proved reserves reviewed by us meet the SEC requirements to be economically producible, we have reviewed certain primary economic data utilized by Apache relating to hydrocarbon prices and costs as noted herein.

The hydrocarbon prices furnished by Apache for the properties reviewed by us are based on SEC price parameters using the average prices during the 12-month period prior to the “as of date” of this report, determined as the unweighted arithmetic averages of the prices in effect on the first-day-of-the-month for each month within such period, unless prices were defined by contractual arrangements. For hydrocarbon products sold under contract, the contract prices, including fixed and determinable escalations exclusive of inflation adjustments, were used until expiration of the contract. Upon contract expiration, the prices were adjusted to the 12-month unweighted arithmetic average as previously described.

The initial SEC hydrocarbon prices in effect on December 31, 2019 for the properties reviewed by us were determined using the 12-month average first-day-of-the-month benchmark prices, provided by Apache, appropriate to the geographic area where the hydrocarbons are sold. These benchmark prices are prior to the adjustments for differentials as described herein. The table below summarizes the “benchmark prices” and “price reference” used by Apache for the geographic areas reviewed by us. In certain geographic areas, the price reference and benchmark prices may be defined by contractual arrangements. In cases where there are numerous contracts or price references within the same geographic area, the benchmark price is represented by the unweighted arithmetic average of the initial 12-month average first-day-of-the-month benchmark prices used.

The product prices which were actually used by Apache to determine the future gross revenue for each property reviewed by us reflect adjustments to the benchmark prices for gravity, quality, local conditions, and/or distance from market, referred to herein as “differentials.” The differentials used by Apache were accepted as factual data and reviewed by us for their reasonableness; however, we have not conducted an independent verification of the data used by Apache.

The table below summarizes Apache’s net volume weighted benchmark prices adjusted for differentials for the properties reviewed by us and referred to herein as Apache’s “average realized prices.” The average realized prices shown in the table below were determined from Apache’s estimate of the total future gross revenue before production taxes for the properties reviewed by us and Apache’s estimate of the total net reserves for the properties reviewed by us for the geographic area. The data shown in the following table is presented in accordance with SEC disclosure requirements for each of the geographic areas reviewed by us.

Geographic Area	Product	Price Reference	Average Benchmark Prices	Average Realized Prices
United States	Oil/Condensate	WTI Cushing	$55.69/Bbl	$52.80/Bbl
	NGLs	Mt. Belvieu Non-Tet Propane	$23.14/Bbl	$14.93/Bbl
	Gas	Henry Hub	$2.63/MMBTU	$0.98/Mcf
Egypt	Oil/Condensate	Brent	$62.74/Bbl	$61.04/Bbl
	NGLs	Brent	$62.74/Bbl	$32.10/Bbl
	Gas	Contracts	Contract	$2.86/Mcf
United Kingdom	Oil/Condensate	Brent	$62.74/Bbl	$60.77/Bbl
	NGLs	Brent	$62.74/Bbl	$35.49/Bbl
	Gas	NBP	$4.49/MMBTU	$4.58/Mcf

The effects of derivative instruments designated as price hedges of oil and gas quantities are not reflected in Apache’s individual property evaluations.

Accumulated gas production imbalances, if any, were not taken into account in the proved gas reserves estimates reviewed. The proved gas volumes presented herein do not include volumes of gas consumed in operations as reserves.

Operating costs furnished by Apache are based on the operating expense reports of Apache and include only those costs directly applicable to the leases or wells for the properties reviewed by us. The operating costs include a portion of general and administrative costs allocated directly to the leases and wells. For operated properties, the operating costs include an appropriate level of corporate general administrative and overhead costs. The operating costs for non-operated properties include the COPAS overhead costs that are allocated directly to the leases and wells under terms of operating agreements. Other costs include transportation and/or processing fees as deductions. The operating costs furnished by Apache were accepted as factual data and reviewed by us for their reasonableness; however, we have not conducted an independent verification of the data used by Apache. No deduction was made for loan repayments, interest expenses, or exploration and development prepayments that were not charged directly to the leases or wells.

Development costs furnished by Apache are based on authorizations for expenditure for the proposed work or actual costs for similar projects. The development costs furnished by Apache were accepted as factual data and reviewed by us for their reasonableness; however, we have not conducted an independent verification of the data used by Apache. The estimated net cost of abandonment after salvage was included by Apache for properties where abandonment costs net of salvage were material. Apache's estimates of the net abandonment costs were accepted without independent verification.

The proved developed non-producing and undeveloped reserves for the properties reviewed by us have been incorporated herein in accordance with Apache's plans to develop these reserves as of December 31, 2019. The implementation of Apache's development plans as presented to us is subject to the approval process adopted by Apache's management. As the result of our inquiries during the course of our review, Apache has informed us that the development activities for the properties reviewed by us have been subjected to and received the internal approvals required by Apache's management at the appropriate local, regional and/or corporate level. In addition to the internal approvals as noted, certain development activities may still be subject to specific partner AFE processes, Joint Operating Agreement (JOA) requirements or other administrative approvals external to Apache. Apache has provided written documentation supporting their commitment to proceed with the development activities as presented to us. Additionally, Apache has informed us that they are not aware of any legal, regulatory or political obstacles that would significantly alter their plans. While these plans could change from those under existing economic conditions as of December 31, 2019, such changes were, in accordance with rules adopted by the SEC, omitted from consideration in making this evaluation.

Current costs used by Apache were held constant throughout the life of the properties.

Apache's forecasts of future production rates are based on historical performance from wells currently on production. If no production decline trend has been established, future production rates were held constant, or adjusted for the effects of curtailment where appropriate, until a decline in ability to produce was anticipated. An estimated rate of decline was then applied until depletion of the reserves. If a decline trend has been established, this trend was used as the basis for estimating future production rates.

Test data and other related information were used by Apache to estimate the anticipated initial production rates for those wells or locations that are not currently producing. For reserves not yet on production, sales were estimated to commence at an anticipated date furnished by Apache. Wells or locations that are not currently producing may start producing earlier or later than anticipated in Apache's estimates due to unforeseen factors causing a change in the timing to initiate production. Such factors may include delays due to weather, the availability of rigs, the sequence of drilling, completing and/or recompleting wells and/or constraints set by regulatory bodies.

The future production rates from wells currently on production or wells or locations that are not currently producing may be more or less than estimated because of changes including, but not limited to, reservoir performance, operating conditions related to surface facilities, compression and artificial lift, pipeline capacity and/or operating conditions, producing market demand and/or allowables or other constraints set by regulatory bodies.

The proved reserves reported herein are limited to the period prior to expiration of current contracts providing the legal right to produce or a revenue interest in such production unless evidence indicates that contract renewal is reasonably certain.

The proved reserves for the properties located in Egypt are subject to the contractual fiscal terms contained in production sharing contracts. For these properties, Ryder Scott audited the gross economic inputs used by Apache in the economic models for Egypt through a comparison of Apache and Ryder Scott's gross economic volumes. Apache's gross economic volumes were then used as input to the economic models to generate the net interests used to determine the net reserves summarized in this report. Ryder Scott reviewed the fiscal terms of such contracts and discussed with Apache the net economic benefit attributed to such operations for the determination of the net hydrocarbon volumes and income thereof. Ryder Scott has not conducted an exhaustive audit or verification of such contractual information. Neither our review of such contractual information nor our acceptance of Apache's representations regarding such contractual information should be construed as a legal opinion on this matter.

Ryder Scott did not evaluate the country and geopolitical risks in the countries where Apache operates or has interests. Apache's operations may be subject to various levels of governmental controls and regulations. These controls and regulations may include, but may not be limited to, matters relating to land tenure and leasing, the legal rights to produce hydrocarbons including the granting, extension or termination of production sharing contracts, the fiscal terms of various production sharing contracts, drilling and production practices, environmental protection, marketing and pricing policies, royalties, various taxes and levies including income tax, and foreign trade and investment and are subject to change from time to time. Such changes in governmental regulations and policies may cause volumes of proved reserves actually recovered and amounts of proved income actually received to differ significantly from the quantities as estimated by Apache.

The estimates of proved reserves presented herein were based upon a review of the properties in which Apache owns and derives an interest; however, we have not made any field examination of the properties. No consideration was given in this report to potential environmental liabilities that may exist nor were any costs included by Apache for potential liabilities to restore and clean up damages, if any, caused by past operating practices.

Certain technical personnel of Apache are responsible for the preparation of reserves estimates on new properties and for the preparation of revised estimates, when necessary, on old properties. These personnel assembled the necessary data and maintained the data and workpapers in an orderly manner. We consulted with these technical personnel and had access to their workpapers and supporting data in the course of our audit.

Apache has informed us that they have furnished us all of the material accounts, records, geological and engineering data, and reports and other data required for this investigation. In performing our audit of Apache's forecast of future proved production, we have relied upon data furnished by Apache with respect to property interests owned or derived, production and well tests from examined wells, normal direct costs of operating the wells or leases, other costs such as transportation and/or processing fees, ad valorem and production taxes, recompletion and development costs, development plans, abandonment costs after salvage, product prices based on the SEC regulations, adjustments or differentials to product prices, geological structural and isochore maps, well logs, core analyses, and pressure measurements. Ryder Scott reviewed such factual data for its reasonableness; however, we have not conducted an independent verification of the data furnished by Apache. We consider the factual data furnished to us by Apache to be appropriate and sufficient for the purpose of our review of Apache's estimates of reserves. In summary, we consider the assumptions, data, methods and analytical procedures used by Apache and as reviewed by us appropriate for the purpose hereof, and we have used all such methods and procedures that we consider necessary and appropriate under the circumstances to render the conclusions set forth herein.

Audit Opinion

Based on our review, including the data, technical processes and interpretations presented by Apache, it is our opinion that the overall procedures and methodologies utilized by Apache in preparing their estimates of the proved reserves as of December 31, 2019 comply with the current SEC regulations and that the overall proved reserves for the reviewed properties as estimated by Apache are, in the aggregate, reasonable within the established audit tolerance guidelines of 10 percent as set forth in the SPE auditing standards. Ryder Scott found the processes and controls used by Apache in their estimate of proved reserves to be effective and in the aggregate, we found no bias in the utilization and analysis of data in estimates for these properties.

We were in reasonable agreement with Apache's estimates of proved reserves for the properties which we reviewed; although in certain cases there was more than an acceptable variance between Apache's estimates and our estimates due to a difference in interpretation of data or due to our having access to data which were not available to Apache when its reserves estimates were prepared. However notwithstanding, it is our opinion that on an aggregate basis the data presented herein for the properties that we reviewed fairly reflects the estimated net reserves owned by Apache.

Other Properties

Other properties, as used herein, are those properties of Apache which we did not review. The proved net reserves attributable to the other properties account for 14.4 percent of the total proved developed net liquid hydrocarbon reserves, 15.1 percent of the total proved developed net gas reserves, 17.9 percent of the total proved undeveloped net liquid hydrocarbon reserves, and 29.8 percent of the total proved undeveloped net gas reserves based on estimates prepared by Apache as of December 31, 2019. The other properties represent 12.8 percent of the total proved discounted future net income at 10 percent based on the unescalated pricing policy of the SEC as taken from reserves and income projections prepared by Apache as of December 31, 2019.

The same technical personnel of Apache were responsible for the preparation of the reserves estimates for the properties that we reviewed as well as for the properties not reviewed by Ryder Scott.

Standards of Independence and Professional Qualification

Ryder Scott is an independent petroleum engineering consulting firm that has been providing petroleum consulting services throughout the world since 1937. Ryder Scott is employee-owned and maintains offices in Houston, Texas; Denver, Colorado; and Calgary, Alberta, Canada. We have approximately eighty engineers and geoscientists on our permanent staff. By virtue of the size of our firm and the large number of clients for which we provide services, no single client or job represents a material portion of our annual revenue. We do not serve as officers or directors of any privately-owned or publicly-traded oil and gas company and are separate and independent from the operating and investment decision-making process of our clients. This allows us to bring the highest level of independence and objectivity to each engagement for our services.

Ryder Scott actively participates in industry-related professional societies and organizes an annual public forum focused on the subject of reserves evaluations and SEC regulations. Many of our staff have authored or co-authored technical papers on the subject of reserves related topics. We encourage our staff to maintain and enhance their professional skills by actively participating in ongoing continuing education.

Prior to becoming an officer of the Company, Ryder Scott requires that staff engineers and geoscientists have received professional accreditation in the form of a registered or certified professional engineer's license or a registered or certified professional geoscientist's license, or the equivalent thereof, from an appropriate governmental authority or a recognized self-regulating professional organization. Regulating agencies require that, in order to maintain active status, a certain amount of continuing education hours be completed annually, including an hour of ethics training. Ryder Scott fully supports this technical and ethics training with our internal requirement mentioned above.

We are independent petroleum engineers with respect to Apache. Neither we nor any of our employees have any financial interest in the subject properties, and neither the employment to do this work nor the compensation is contingent on our estimates of reserves for the properties which were reviewed.

The results of this audit, presented herein, are based on technical analysis conducted by teams of geoscientists and engineers from Ryder Scott. The professional qualifications of the undersigned, the technical person primarily responsible for overseeing the review of the reserves information discussed in this report, are included as an attachment to this letter.

Terms of Usage

The results of our third party audit, presented in report form herein, were prepared in accordance with the disclosure requirements set forth in the SEC regulations and intended for public disclosure as an exhibit in filings made with the SEC by Apache Corporation.

Apache makes periodic filings on Form 10-K with the SEC under the 1934 Exchange Act. Furthermore, Apache has certain registration statements filed with the SEC under the 1933 Securities Act into which any subsequently filed Form 10-K is incorporated by reference. We have consented to the incorporation by reference in the registration statements on Form S-3, Form S-4, and Form S-8 of Apache, of the references to our name, as well as to the references to our third party report for Apache, which appears in the December 31, 2019 annual report on Form 10-K of Apache. Our written consent for such use is included as a separate exhibit to the filings made with the SEC by Apache.

We have provided Apache with a digital version of the original signed copy of this report letter. In the event there are any differences between the digital version included in filings made by Apache and the original signed report letter, the original signed report letter shall control and supersede the digital version.

The data and work papers used in the preparation of this report are available for examination by authorized parties in our offices. Please contact us if we can be of further service.

Very truly yours,

RYDER SCOTT COMPANY, L.P.
TBPE Firm Registration No. F-1580

/s/ Ali A. Porbandarwala

Ali A. Porbandarwala, P.E.
TBPE License No. 107652
Senior Vice President

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Professional Qualifications of Primary Technical Person

The conclusions presented in this report are the result of technical analysis conducted by teams of geoscientists and engineers from Ryder Scott Company, L.P. Mr. Ali A. Porbandarwala was the primary technical person responsible for overseeing the estimate of the reserves, future production and income prepared by Ryder Scott presented herein.

Mr. Porbandarwala, an employee of Ryder Scott Company, L.P. (Ryder Scott) since 2008, is a Senior Vice President responsible for coordinating and supervising staff and consulting engineers of the company in ongoing reservoir evaluation studies worldwide. Before joining Ryder Scott, Mr. Porbandarwala served in a number of engineering positions with ExxonMobil Corporation. For more information regarding Mr. Porbandarwala's geographic and job specific experience, please refer to the Ryder Scott Company website at www.ryderscott.com/Company/Employees.

Mr. Porbandarwala earned a Bachelor of Science degree in Chemical Engineering from The University of Kansas in 2001 and a Masters in Business Administration from The University of Texas at Austin in 2007 and is a licensed Professional Engineer in the State of Texas. He is also a member of the Society of Petroleum Engineers and a member of the Society of Petroleum Evaluation Engineers as the Vice President (Membership) for the Houston Chapter. Mr. Porbandarwala also serves as the Chairman of the annual Ryder Scott Reserves Conference in Houston, completing its fifteenth year in the industry.

In addition to gaining experience and competency through prior work experience, the Texas Board of Professional Engineers requires a minimum of fifteen hours of continuing education annually, including at least one hour in the area of professional ethics, which Mr. Porbandarwala fulfills. As part of his 2019 continuing education hours, Mr. Porbandarwala attended 25 hours of formalized training including the 2019 Ryder Scott Reserves Conference and various other professional society presentations specifically relating to the definitions and disclosure guidelines contained in the United States Securities and Exchange Commission Title 17, Code of Federal Regulations, Modernization of Oil and Gas Reporting, Final Rule released January 14, 2009 in the Federal Register.

Based on his educational background, professional training and more than 11 years of practical experience in the estimation and evaluation of petroleum reserves, Mr. Porbandarwala has attained the professional qualifications as a Reserves Estimator and Reserves Auditor set forth in Article III of the "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information" promulgated by the Society of Petroleum Engineers as of February 19, 2007.

PETROLEUM RESERVES DEFINITIONS

As Adapted From:
RULE 4-10(a) of REGULATION S-X PART 210
UNITED STATES SECURITIES AND EXCHANGE COMMISSION (SEC)

PREAMBLE

On January 14, 2009, the United States Securities and Exchange Commission (SEC) published the "Modernization of Oil and Gas Reporting; Final Rule" in the Federal Register of National Archives and Records Administration (NARA). The "Modernization of Oil and Gas Reporting; Final Rule" includes revisions and additions to the definition section in Rule 4-10 of Regulation S-X, revisions and additions to the oil and gas reporting requirements in Regulation S-K, and amends and codifies Industry Guide 2 in Regulation S-K. The "Modernization of Oil and Gas Reporting; Final Rule", including all references to Regulation S-X and Regulation S-K, shall be referred to herein collectively as the "SEC regulations". The SEC regulations take effect for all filings made with the United States Securities and Exchange Commission as of December 31, 2009, or after January 1, 2010. Reference should be made to the full text under Title 17, Code of Federal Regulations, Regulation S-X Part 210, Rule 4-10(a) for the complete definitions (direct passages excerpted in part or wholly from the aforementioned SEC document are denoted in italics herein).

Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. All reserve estimates involve an assessment of the uncertainty relating the likelihood that the actual remaining quantities recovered will be greater or less than the estimated quantities determined as of the date the estimate is made. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Unproved reserves are less certain to be recovered than proved reserves and may be further sub-classified as probable and possible reserves to denote progressively increasing uncertainty in their recoverability. Under the SEC regulations as of December 31, 2009, or after January 1, 2010, a company may optionally disclose estimated quantities of probable or possible oil and gas reserves in documents publicly filed with the SEC. The SEC regulations continue to prohibit disclosure of estimates of oil and gas resources other than reserves and any estimated values of such resources in any document publicly filed with the SEC unless such information is required to be disclosed in the document by foreign or state law as noted in §229.1202 Instruction to Item 1202.

Reserves estimates will generally be revised only as additional geologic or engineering data become available or as economic conditions change.

Reserves may be attributed to either natural energy or improved recovery methods. Improved recovery methods include all methods for supplementing natural energy or altering natural forces in the reservoir to increase ultimate recovery. Examples of such methods are pressure maintenance, natural gas cycling, waterflooding, thermal methods, chemical flooding, and the use of miscible and immiscible displacement fluids. Other improved recovery methods may be developed in the future as petroleum technology continues to evolve.

Reserves may be attributed to either conventional or unconventional petroleum accumulations. Petroleum accumulations are considered as either conventional or unconventional based on the nature of their in-place characteristics, extraction method applied, or degree of processing prior to sale. Examples of unconventional petroleum accumulations include coalbed or coalseam methane (CBM/CSM), basin-centered gas, shale gas, gas hydrates, natural bitumen and oil shale deposits. These unconventional accumulations may require specialized extraction technology and/or significant processing prior to sale.

Reserves do not include quantities of petroleum being held in inventory.

Because of the differences in uncertainty, caution should be exercised when aggregating quantities of petroleum from different reserves categories.

RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(26) defines reserves as follows:

Reserves. *Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project.*

Note to paragraph (a)(26): Reserves should not be assigned to adjacent reservoirs isolated by major, potentially sealing, faults until those reservoirs are penetrated and evaluated as economically producible. Reserves should not be assigned to areas that are clearly separated from a known accumulation by a non-productive reservoir (i.e., absence of reservoir, structurally low reservoir, or negative test results). Such areas may contain prospective resources (i.e., potentially recoverable resources from undiscovered accumulations).

PROVED RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(22) defines proved oil and gas reserves as follows:

Proved oil and gas reserves. *Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible-from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations-prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.*

(i) The area of the reservoir considered as proved includes:

(A) The area identified by drilling and limited by fluid contacts, if any, and

(B) Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.

(ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.

(iii) Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the

structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.

(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when:

> *(A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and*
>
> *(B) The project has been approved for development by all necessary parties and entities, including governmental entities.*

(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

PETROLEUM RESERVES STATUS DEFINITIONS AND GUIDELINES

As Adapted From:
RULE 4-10(a) of REGULATION S-X PART 210
UNITED STATES SECURITIES AND EXCHANGE COMMISSION (SEC)

and

2018 PETROLEUM RESOURCES MANAGEMENT SYSTEM (SPE-PRMS)
Sponsored and Approved by:
SOCIETY OF PETROLEUM ENGINEERS (SPE)
WORLD PETROLEUM COUNCIL (WPC)
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS (AAPG)
SOCIETY OF PETROLEUM EVALUATION ENGINEERS (SPEE)
SOCIETY OF EXPLORATION GEOPHYSICISTS (SEG)
SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS (SPWLA)
EUROPEAN ASSOCIATION OF GEOSCIENTISTS & ENGINEERS (EAGE)

Reserves status categories define the development and producing status of wells and reservoirs. Reference should be made to Title 17, Code of Federal Regulations, Regulation S-X Part 210, Rule 4-10(a) and the SPE-PRMS as the following reserves status definitions are based on excerpts from the original documents (direct passages excerpted from the aforementioned SEC and SPE-PRMS documents are denoted in italics herein).

DEVELOPED RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(6) defines developed oil and gas reserves as follows:

Developed oil and gas reserves are reserves of any category that can be expected to be recovered:

(i) Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and

(ii) Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

Developed Producing (SPE-PRMS Definitions)

While not a requirement for disclosure under the SEC regulations, developed oil and gas reserves may be further sub-classified according to the guidance contained in the SPE-PRMS as Producing or Non-Producing.

Developed Producing Reserves
Developed Producing Reserves are expected quantities to be recovered from completion intervals that are open and producing at the effective date of the estimate.

Improved recovery reserves are considered producing only after the improved recovery project is in operation.

Developed Non-Producing

Developed Non-Producing Reserves include shut-in and behind-pipe Reserves.

Shut-In

Shut-in Reserves are expected to be recovered from:

(1) *completion intervals that are open at the time of the estimate but which have not yet started producing;*
(2) *wells which were shut-in for market conditions or pipeline connections; or*
(3) *wells not capable of production for mechanical reasons.*

Behind-Pipe

Behind-pipe Reserves are expected to be recovered from zones in existing wells that will require additional completion work or future re-completion before start of production with minor cost to access these reserves.

In all cases, production can be initiated or restored with relatively low expenditure compared to the cost of drilling a new well.

UNDEVELOPED RESERVES (SEC DEFINITIONS)

Securities and Exchange Commission Regulation S-X §210.4-10(a)(31) defines undeveloped oil and gas reserves as follows:

Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

(i) *Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.*

(ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances, justify a longer time.

(iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, as defined in paragraph (a)(2) of this section, or by other evidence using reliable technology establishing reasonable certainty.