



100

YEARS SHELL PIPELINE

1919-2019





Date unknown: An early look inside Shell Pipe Line's clerical and accounting rooms at the office in Cushing, Okla.

August 1973: *Go Devil* reports that Shell Pipe Line researcher Veet Kruka has discovered a method of expanding the capacity of a crude oil pipeline without increasing the size of the line or pumping facilities. The new method uses a polymer injection to increase the flow of crude by reducing friction and turbulence inside the line.

February 1, 1974: Shell Pipe Line President John Green retires and is replaced by Shell Research Complex Vice President Mike Papadopoulos.

February 1974: *Go Devil* reports:
 "One's a tank farm gauger at McCamey, the other is a utility pipeliner at St. James. What makes these two employees unordinary is the fact that they are women. They are the first two women employees that Shell Pipe Line has hired to work in the field."

Tank Farm Gauger Ann Barnett worked at the McCamey Tank Farm in West Texas, and Utility Pipeliner Alberta Mitchell worked at the St. James Terminal in Louisiana.

June 1974: Shell Pipe Line announces the reorganization of the operating divisions. West Texas and Rocky Mountain divisions become Central Division. Southern and Texas Gulf divisions become Gulf Coast Division. Products Pipe Line and Northern and Oklahoma divisions are consolidated into Mid-Continent Division.

February 1975: Shell Pipe Line President Mike Papadopoulos is named general manager, Transportation and Distribution, and General Manager of Transportation Jack Hurley becomes president of Shell Pipe Line.

August 1977: In a letter to employees, Shell Pipe Line President Jack Hurley writes of the "energy crisis" the country was experiencing: "During this past year, Shell Pipe line's key slogan was 'Efficiency' and in 1977, I hope we can continue that high goal of efficiency and energy conservation."

1979: The Texas-Louisiana Ethylene system is built between Mont Belvieu, Texas, and Napoleonville, La. The 254-mile, 12-inch products pipeline is bidirectional.

1981: LOCAP, Inc., 58 miles of 48-inch crude oil pipelines, begins operating from Clovelly to St. James, La.

March 1981: The first oil from the Beta field, nine miles off the coast of Long Beach, Calif., travels 17 miles via pipeline to the Beta Pump Station in Long Beach.

1984: Via the 30-inch, 502-mile Cortez Pipeline, Shell Pipe Line begins moving a new type of product: Carbon dioxide.

1985: Construction began on the Choctaw Pipeline System, a 91-mile, 20-inch carbon dioxide pipeline running from Jackson, Miss., to fields near McComb, Miss.

1986: Shell Pipe Line now has operations in 17 states.

October 1986: A story in *Go Devil* announces that "a movement is afoot in Shell Pipe Line. Within the next few months, every employee will be introduced to a process that will require a career-long commitment. That process is quality improvement."

Historical Note: During World War II, S. S. "Syd" Smith, designer of Shell's Midwest products lines and manager of the company's products pipeline department, was credited for the development of the military's portable pipeline. The lightweight steel line had rubber-lined metal couplings that fastened with a single bolt. The 20-foot pipeline sections could be assembled, moved, reassembled and repaired easily. Smith even patented a series of pumps that automatically turned on and off according to demand - much like a garden hose supplies water from a nozzle. The pipeline, taken up and re-laid, followed American troops as they advanced into Italy, France and Germany - a total of 11,000 miles. In October 1946, Smith was awarded the Medal for Merit from the president.



1968: A sophisticated pipeline wrapping machine quickly covers a section of the Capline Pipeline.

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Since the mid-20s, Shell had used the Great Lakes to ship products from East Chicago to Michigan and northern Ohio. This worked well, except in winter when the lakes froze over. In 1952, Shell solved the problem by building the Wolverine Pipeline.

January 1987: Shell Pipe Line employees celebrate the company's safest year to date: Two lost-time injuries, eight OSHA recordable injuries and six first-aid cases.

January 1987: *Go Devil* reports that construction work is almost completed on the 20-inch Choctaw CO2 pipeline from Mississippi to Louisiana.

February 1988: Shell Pipe Line hosts its first "Quality Day" for Head Office employees at the downtown Houston Hyatt Hotel.

February 1, 1988: The remote operation for the Michigan NGL and Crude Gathering pipelines is switched from the Kalkaska Control Center to the Wood River Control Center.

May 5, 1988: Former Pipe Line President Joe T. Dickerson dies in Jackson, Miss. Dickerson retired in 1959 after serving as president for five years.

September 28, 1988: The control center in McCamey, Texas, is consolidated to the Midland Control Center. Midland's first controller, Leo Sotomayor, cuts the ribbon to mark the occasion.

December 24, 1988: A manufacturing defect in the Ozark Pipeline causes a rupture that releases 20,500 barrels of crude oil into Missouri's Gasconade River.

1989: Shell Pipe Line President Bob McMahan and several West Coast employees star in the company's first and only music video, "I Love Q.A." In the video, a flower-shirted McMahan drives a 1950s

vintage Thunderbird convertible from location to location while he mimes the words to a remake of the song, "I Love L.A."

1989: Shell Pipe Line begins experimenting with the use of satellites for remotely monitoring and operating pipeline systems. The experiment began when the company's microwave network began showing signs of age.

May 1990: Kermit, Texas, Pipeline Operator Gene Heard becomes the second Shell Pipe Line employee to complete 50 years of service. (The first was Arthur Doherty, who retired in 1969 from the Pipe Line Department in Los Angeles.) Including Heard, only five Shell Oil employees have reached the 50-year milestone.

January 1991: Shell Pipe Line management shares information on the corporation's reorganization plan.

May 1991: A Shell Offshore Inc. retiree fishing at Grand Isle, La., found a beached hard hat imprinted with Hank Savoy's name. Savoy, a meter measurement technician at Nairn, La., had lost the hat six months earlier when a gust of wind blew the hat off the helipad of a Shell offshore platform. The hat was returned to a surprised Savoy. In addition to the 20-mile trip to shore, the hard hat drifted 30 miles to the east before settling into the sand at Grand Isle.

August 1991: *Go Devil* reports that Jim Gallagher, Manager, Oil Movements Measurement, in leading a group of 52 international scientists, discovers that two 60-year-old equations used to calculate the flow of natural gas and chemicals through pipelines

are incorrect. Minor errors in the equations caused the industry to inadvertently give away one-tenth of 1 percent of all natural gas and chemicals shipped through industry pipelines since the 1930s. Using new equations created by Gallagher and the team of scientists, revenue from chemical and natural gas sales were expected to increase by \$1-7 million per year.

April 1992: The Pasadena (Texas) Control Center becomes Shell Pipe Line's first control center to be moved to the Consolidated Control Center on the 16th floor of Houston's Two Shell Plaza.

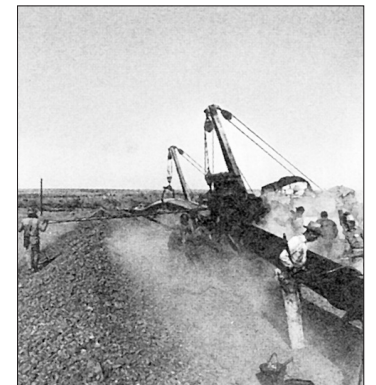
1993: Shell Pipe Line employees complete the safest year in company history and earn the API's safest pipeline company award.

1993: D. M. "Doc" Farrell, Shell Pipe Line's original "safety man" who worked from 1935-1972, died in Austin, Texas.

1994: Employees working along the 632-mile, 40-inch Capline Pipeline celebrate the Line's 25th anniversary.

1994: Shell Pipe Line employees across the country celebrate the 75th anniversary of the completion of the Cushing Wood River 10-inch crude line. The pipeline marked the beginning of the corporation in 1919.

1994: Production begins at the Auger platform at the world record water depth of 2,860 feet. Auger's structure is a floating hull that supports a five-story deck over an area the size of two football fields.



July 1949: Workers apply a shiny, tar-like coating during construction of the Ozark 22-inch Pipeline. Creating the pipe for the Ozark System required a steel mill (Youngstown Sheet & Tube Company) to operate continuously for 85 days. To transport the pipe to construction locations in the field, a 60-car train left the Youngstown plant every 36 hours.

1938: D. M. "Doc" Farrell, Shell Pipe Line's original safety man (from 1935-1972), leads an on-the-job safety meeting in Cushing, Okla. "Farrell was the famous safety man to all the old timers," said Shell Pipe Line retiree Wayne Kinison of Houston, who had worked many of his 42 years of Shell service alongside Farrell. "A long time ago, the superintendents in the field were sort of like kingpins and there wasn't a whole lot of pressure on them to keep employees accident-free. They figured if somebody got hurt, they'd go get another man to do the job. But Doc really had people thinking about safety and everybody knew that he meant business. He had a big impact on Shell Pipe Line. In 1937, a Shell Pipe Line employee wrote the following about Farrell: "When Doc first came around, we didn't pay him much mind and kinda laughed when he left. But Doc Farrell was just as stubborn as the rest of us. We darn well learned that he was serious and meant business. He taught us how to be safe."



April 1995: Midland, Texas Control Center moved to Houston. It was the last of six regional Control Centers to be transitioned.

July 1996: Shell Pipeline installed the 18/24-inch Mars Oil Pipeline to move the oil from the Mars oil platform, a \$2.1 billion oil and gas project in the Gulf of Mexico standing 3,250 feet high from the seafloor, to LOOP's Clovelly storage facility. Mars was the largest oil and gas discovery in the Gulf of Mexico in two decades.

August 1997: The Gibson, Louisiana work group started up and began operating the new Enchilada Pump Station, the Offshore Area's first electric-driven, offshore pump station. This first venture into the gas pipelining business, was the Mississippi Canyon Gas System (MCGS) and was followed by the Garden Banks Gas Pipeline (GDGP).

1998: Shell and Texaco Pipeline formed Equilon Pipeline Co. which owned and operated over 12,000 miles of pipeline. This was part of Equilon Enterprises LLC, a joint venture 56 percent Shell-owned and 44 percent Texaco-owned, which secured a 13 percent share of the domestic refining market and 14.6 percent of the U.S. gasoline market.



1996: To celebrate five safe working years, the offshore Gibson, Louisiana employees were surprised by a hot air balloon fly-over.



1997: Engineering and operations staff at the Enchilada Pump Station. L to R: Jason Dollar, Andy Martin, Greg Landry, Dennis Cazenave, Terry Nolan, Wally Boudreaux, Robert Stevens.



2013: Aligning a 90° bend during a re-route of the Capline pipeline to accommodate an interstate expansion in Mississippi.

June 1999: The Olympic gasoline pipeline, partly owned and operated by Equilon, a joint venture between Shell and Texaco, ruptured in Bellingham, Washington. The gasoline vapors from the failed pipeline exploded and three people died in the accident. This was an industry defining event which led to regulatory, safety, and operational changes.

1999: Christie Cain was featured in the newspaper City Business as a woman who is successfully working in the male-dominated oilfield industry. Christie was the first female Pipeliner in the Gulf of Mexico Business Unit. She spent 10 years in the Army, so offshore work seemed like a good career choice.

July 2000: Equilon Pipeline purchased the Chase Pipeline System (El Dorado, KS to Aurora, CO), including a tank farm and 3 distribution terminals.

October 2001: Shell Oil signed a deal to buy Texaco Inc.'s 44% share of Equilon Enterprises LLC.

May 2002: Equilon Pipeline Company began doing business as Shell Pipeline Company (SPLC).

April 2003: The first annual Krispy Kreme Invitational Doughnut Eating Contest was held, hosted by the Control Center. Jim Bertus was crowned Krispy Kreme King after consuming 12.5 doughnuts in 5 minutes. He immediately went home to recuperate.

2003: Construction of the 74-mile long, 18" diameter offshore Nakika crude pipeline was finished from Mississippi Canyon 474 to the Main Pass 69P platform.

2003: The Jackalope pipeline from ST301 to SS332 was laid as part of the Amberjack Offshore Crude system.

December 2003: The Butte, Poplar, and Little Missouri systems in Montana and Wyoming were sold.

2004: A year of downsizing saw SPLC divest of assets including Ozark, West Tulsa, Kamo, Eldorado Tank Farm, Cushing Tank Farm, Patoka West Tank Farm, Osage, Capwood, Patoka 22", 2 Rivers, East Line, North Line, St. Louis 6", St. Louis ATF, E Chicago, Aurora, Chase Colorado, Chase Kansas, El Dorado Products Terminal, Orion N, S, and W, Aldine Products, Boyer 16", Boyer-Chase 8", E. Houston Products Terminal, Glenpool/Explorer Receipt, Hearne Pipeline and Terminal, Galena Park to E Houston Pipeline, and the Odessa-El Paso Pipeline.

2004: As the onshore asset footprint was shrinking, the offshore pipeline infrastructure was growing. The 53-mile Magnolia 14" from GB783A to GB128A and the 71-mile Holstein crude and gas pipelines from GC645 to SS332B were built.

August 2005: Hurricane Katrina hit Louisiana resulting in personnel impacts and major damage to offshore platforms, such as Mars.

September 2005: Hurricane Rita hit Texas, inflicting damage to onshore assets, infrastructure, and personnel homes. Repairs from both hurricanes reached over \$500 mln.



2005: 54 miles of the Seg 1 Endymion 30" Offshore Crude system from SP89E to Grand Isle became operational.

December 2005: By this time asset sales of Avery Island-Houma 10", Bayou Sale-Erath 10", Golden Meadow-Houma 12", Cocodrie Storage, Erath North Tank Farm, Cocodrie-Houma 12", Ventura Crude, Brea Crude, Thums-Beta Crude lines, Ventura Crude Gathering, San Miguelito, Taylor Lateral, and the remaining shares of Olympic Pipeline were concluded.

2005: "Sugarville", Shell Pipeline's temporary camp for staff, families, and pets impacted by Hurricane Katrina, was set up in St. James, LA. Sugarville had hundreds of travel trailers, supplies, food, a cafeteria, a laundromat, and crews to help employees in the cleanup of their homes. Tim Stanley was elected Mayor due to his knowledge and experience with travel trailers.

GO D E V I L

2006: Publication of the *Go Devil* newsletter, originally created in 1941 as a communication forum for staff, resumed after a multi-year hiatus.



2006: Construction began on the Bengal 24" pipeline and the Garyville Pump Station to transport gasoline from Norco, LA to Baton Rouge, LA.

2006: The Seajack 20in pipeline construction began from SS332 to ST301.

2007: As a result of damage from a ship anchor drag during a hurricane, Mars Deepwater Pipeline was repaired with spool piece jumpers installed in 2,750 feet of water on both oil and gas export pipelines. This project won the British Institute Project of the Year in 2007.

2008: Hurricane Ike damage resulted in the EI331A platform bypass being completed on the Auger system the following year.

2008: Despite threatening hurricanes, the Tahiti 20/24" Pipeline underwent construction and began production in 2009.

2009: To support Shell Chemical's booming Dry Gas business, the Texas City pipelines and various connections were built.

2012: Commercial Group employees held a volunteer day to build a fence and mulch a playground for a Neighborhood Center. L to R: Ken Zimmerman, Allen Moscon, Tom Gates



2007: The national, public campaign to call 811 – "Call Before You Dig" started with Shell.



August 2010: First tank in Shell Pipeline to be painted with the 811 logo at Colex in Pasadena, TX. A tank at Bakersfield, CA, was similarly painted.

November 2010: Greg Smith is named President of Shell Pipeline Company; he had been preceded in that role by Mary Mujica. The previous year Electrical Technicians Bill Webb and Phil Freeman presented a box that contained a Taylor Mod 30 controller, hand held programmer, and the associated circuit that Smith designed for the Patoka, IL Tank Farm in 1987.

2011: Continued expansion of Dry Gas business with new Convent pipelines in Louisiana.

2012: The flow direction in the crude pipeline from Houma to Houston (HoHo) was reversed to support customer needs in Louisiana.

2013: SPLC adopted a horse through the Houston Police Department's Adopt a Horse Program. The contest to name the horse was won by Carrie Hodgins who dubbed him "Digger – 811".

2013: Operatorship of the Capline Pipeline ended after 45 years. Celebrations were held in St. James, LA and Patoka, IL.

August 2014: The 10th annual Mark Keller (CPM Analyst) Memorial Basketball tournament was held. Over the years, the hard-played tournaments and a silent auction in his name raised over \$50,000 to help battle cancer.

October 2014: Shell Midstream Partners, L.P., a master limited partnership (MLP) formed by Royal Dutch Shell, announced its initial public offering (IPO) making it the first MLP sponsored by a super major energy company. Assets include Zydeco, Mars, Colonial, and Bengal.



2013: Shell retirees involved in original Capline construction who attended operatorship open house. L to R: Carl Jolliff, Delbert Petty, Don Baugh, Tom Rippee, David Feather, Larry Thompson, Willard Patterson.



After ringing the bell on the New York Stock Exchange, CEO Peggy Montana (front row) leads the applause for Shell Midstream Partners.



December 2015: Tammy Pimley, Terri Howell and Tina Brignac won the Holiday "Non-Alcoholic" Drink contest that was held in the New Orleans office. Not only were they the winners for their delicious drink but they also won the best decorated booth.

January 2015:

Shell Midstream Partners (NYSE: SHLX) rang in the New Year by ringing the closing bell at the New York Stock Exchange. Members of the SHLX management team, the Chairman of the Board and select team members as well as three Shell Pipeline Company (SPLC) employees joined in on the momentous occasion.

2015: The 350-mile Houston-to-Houma (HoHo) crude oil pipeline system was incorporated as Zydeco Pipeline Company LLC and operates as a subsidiary of Shell Midstream Operating LLC.

2016: Was a year of building scale for Shell Midstream Partners. It acquired interest in Proteus Oil Pipeline Company, LLC, Endymion Oil Pipeline Company LLC, and Cleopatra Gas Gathering Company, LLC.

February 2016:

The new order-to-cash system Synthesis became operational, replacing Energy Xchange.



2016: Shell Pipeline establishes PipelineER, the first ever Volunteer Emergency Response Organization.

July 2016: The Control Center finalized its transition from Two Shell Plaza, where it had operated since 1992, to the new Woodcreek Control Center. The relocation was executed flawlessly and the last communication to TSP was "Houston we have NO problem".

September 2017:

Hurricane Harvey impacted Houston and personnel/assets in east Texas. The response to support staff in their recovery was impressive and inspirational.

March 2018: Following months of planning and 3 months of execution, the hydrotest of the Zydeco pipeline was successful.

March 2018:

John Hollowell retired as EVP Shell Pipeline and Chief Executive Officer of Shell Midstream Partners GP LLC. He was succeeded by Kevin Nichols.

May 2018:

Shell Midstream Partners made its largest deal to date by acquiring a stake in Amberjack Pipeline Company LLC for \$1.22 billion.

August 2018:

The last of 7 Control Center consoles was "cut-over" to operate on the OASys SCADA (Supervisory Control and Data Acquisition) system. The Vector SCADA system had operated continuously since 1992.

2018: Shell Pipeline builds the Mattox oil export pipeline to support Appomattox, a deep-water oil and gas project, Shell's largest floating platform in the Gulf of Mexico located approximately 80 miles offshore Louisiana at a water depth of 7,400 feet.

2019: The Houma Tanks Expansion Project is commissioned which included the construction of two 250,000 barrel crude tanks. Construction included improving approximately 10 acres of swamplands to conditions favorable for building and maintaining the storage tanks.

2019: Construction began on the 97-mile Falcon Ethane Pipeline System in southwest Pennsylvania, eastern Ohio and West Virginia.

April 2016: The American Petroleum Institute awarded Shell Pipeline Company LP the Occupational Safety Performance Award for Large Operator Pipeline Companies. L to R: Kevin Nichols, Brian Sitterly, Jeff Whitworth, Mike Thompson.

For 100 years, Shell Pipeline has been delivering America's Energy. With this enviable foundation, we are well positioned to become the Midstream engine for Royal Dutch Shell in the US.

