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Louisiana Energy Topic

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A Supplement to LOUISIANA ENERGY FACTS on Subjects of Special Interest

AMERICA'S WETLANDS: ENERGY CORRIDOR TO THE NATION

A Proud History of Service to America's Energy Needs

Part 1 of a series of 7 articles

by

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Louisiana's coastline measures just under 400 miles from the Texas border to the Mississippi line. This represents less than 6% of the contiguous lower 48 states' coastline. From this coastline up to Interstate 10, which traverses the state east to west, lies about 5,300 square miles (or 3.4 million acres) of coastal wetlands (America's Wetlands).

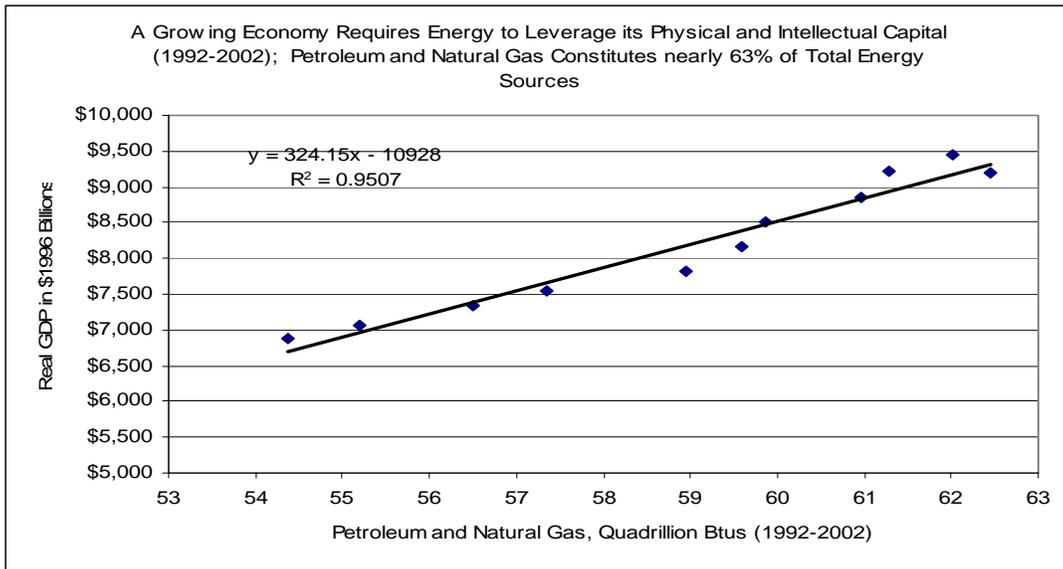
Within, and across, this wetlands area are:

- (1) oil and natural gas drilling slips and production facilities,
- (2) natural gas and crude oil pipelines, both onshore and from the state and federal offshore,
- (3) the intersections of oil and natural gas intrastate and interstate pipeline networks, from both onshore and offshore, which serve as the reference for Wall Street's Commodity Futures markets such as the Henry Hub for natural gas, the St. James Louisiana Light Sweet Crude Oil, and the Mars Sour Crude Oil contracts,
- (4) subsurface salt domes which store a significant portion of the nation's Strategic Petroleum Reserve (SPR),
- (5) the St. James oil terminal on the Lower Mississippi River, capable of offloading ocean going oil tankers, or loading barges for further inland shipment, and the origination of Shell Oil Company's CAPLINE pipeline network transporting oil and petroleum products north into the nation's heartland,
- (6) the Louisiana Offshore Oil Port (LOOP), the nation's major import terminal for foreign oil, the associated east-west LOCAP pipeline network, and onshore salt dome storage facilities,
- (7) an LNG (liquefied natural gas) terminal, site of one of the nation's major import facilities for natural gas and, now,
- (8) Port Fourchon, near the termination of Louisiana Highway 1 at Leesville, Louisiana, located directly on the Gulf Coast, the oil field services and supply port supporting the deepwater offshore exploration and production efforts, the only growing source of domestic crude oil production in the United States.

This compact coastal geographic area of the United States and its network of energy facilities, in the aggregate, accommodate the movement of over 26% of the nation's natural gas supply, as well as, over 26% of the nation's crude oil supply. Together with the facilities in the rest of the state, nearly 34% of the nation's natural gas supply, and over 29% of the nation's crude oil supply, moves through the state of Louisiana and is connected to nearly 50% of U. S. refining capacity. Not considering other value, this

volume of crude oil and natural gas flowing through Louisiana’s Energy Corridor represents, approximately, \$150 billion in annual energy value, equivalent to about \$50,000 per acre of wetlands (and about \$30,000,000 per square mile). **No other similar sized geographic area of the United States impacts the nation’s aggregate economy like this vital Wetlands Energy Corridor.**

**U. S. Citizens use Energy to Leverage their Physical and Intellectual Capital and to raise Living Standards.
Crude Oil and Natural Gas are the primary sources of that energy.**



Louisiana’s Proud Energy Heritage

Col. Edwin L. Drake is widely credited with drilling the first successful oil well in the United States, near Titusville, Pennsylvania in 1859. This is acknowledged in history as the beginning of the oil industry in America.

But Louisiana has been a vital participant in this nation’s proud energy history for over 130 years, spanning parts of the 19th, 20th and now the 21st Century.

An Historical Timeline of Louisiana's Wetlands Resources as America's Energy Corridor

<u>Year</u>	<u>Event</u>
1868	Louisiana's first well, an exploratory well near Bayou Choupique, Hackberry, LA was a dry hole.
1901	The No. 1 Jules Clement, 5 miles northeast of Jennings, completed as a producer Sept. 21, 1901.
1906	First North Louisiana well (natural gas) completed March 26, 1906 in Caddo Parish.
1906	First interstate natural gas pipeline system from Caddo Field to Marshall, TX.
1909	First processing at Baton Rouge refinery, September 1909.
1910	First interstate oil pipeline from Oklahoma through Caddo Lake area to Baton Rouge.
1910	Gulf Oil completes the first oil well over water in Caddo Lake, 1910.
1933	First well drilled on state offshore lands, 3,000 ft. from the beach near Creole, LA, in 12 ft of water.
1937	First offshore field production in 26 ft. of water, 1.5 miles off the beach, Creole, LA.
1947	First offshore well drilled out of sight of land by Kerr McGee in Ship Shoal Block 32.
1976	Shell Oil announces discovery of first deepwater field, called Cognac, in 1,025 ft. of water at Mississippi Canyon 194.
1977	DOE SPR initiative completes St. James terminal and salt dome storage facility at Bayou Choctaw.
1947	First offshore well drilled out of sight of land by Kerr McGee in Ship Shoal Block 32
1976	Shell Oil announces discovery of first deepwater field, called Cognac, in 1,025 ft. of water at Mississippi Canyon 194
1977	DOE SPR initiative completes St. James terminal and salt dome storage facility at Bayou Choctaw

- 1979 A consortium of private companies completes the Louisiana Offshore Oil Port, salt dome storage, and LOCAP pipeline.
- 1981 Panhandle Eastern Pipeline company completes its LNG terminal at Lake Charles, LA
State of Louisiana organizes the Louisiana Oil Spill Coordinators Office to pro-actively manage spill threats to Wetlands Resources
- 1991 Resources
- 1997 Port Fourchon, the nation's only port serving the deepwater oil and natural gas infrastructure, expands operationally
- 2001 Thunder Horse, largest deepwater reservoir yet discovered (in 5,640 ft of water) is announced by owners BP and Exxon
- 2002 Marathon and TotalFinaElf set water depth record for natural gas pipeline tie in (7,209 ft water depth)
- 2002 MMS implements Presidential Directive to fill SPR with Royalty in Kind Oil, rate reaches 100,000 BOPD in October, 2002
- 2002 ChevronTexaco files first LNG proposal under the Deepwater Ports Act with the USGS on December 3, 2002 (Port Pelican)

In 1868, 9 years after Col. Drake drilled his first discovery, a dry exploration well was drilled near Hackberry, LA. Instead of oil, sulfur was discovered. (Source: Morning Advocate, October 10, 1956, "Oil Progress Week Begins, History of Oil is Related")

Louisiana's first oil discovery was on September 9, 1901 near Jennings, LA, about 9 months after the discovery of the legendary Spindletop field near Beaumont, TX. (Source: Morning Advocate, October 10, 1956)

In 1906, the first gas well was completed in Caddo Parish by a group of Chicago businessmen in the synthetic gas business. (Source: *Natural Gas, The Gulf South's Symbol of Progress* by Norris Cochran McGowen, member of the Newcomen Society, President of United Gas Corporation, 1951)

Later that same year (1906), the first interstate natural gas pipeline was laid from the Caddo field to Marshall, Texas. (Source: *Natural Gas*, McGowen)

In 1909, oil refining started in Baton Rouge at, what is today, the site of the giant Baton Rouge refinery. (Source: Morning Advocate, October 10, 1956)

In 1910, the first interstate oil pipeline was completed from Oklahoma to Baton Rouge, running through Caddo Parish and incorporating the oil production from the Caddo field. (Source: *Louisiana Oil and Gas Facts*, Mid-Continent Oil and Gas Association, 30th Edition).

Also in 1910, Gulf Oil completed the first well drilled over water in Caddo Lake. (Source: Louisiana Department of Natural Resources, Office of Conservation web site, Centennial Slide Show, "First 100 Years")

In 1933, the first well drilled on state offshore lands was drilled at Creole, LA, approximately, 3,000 ft. off the beach in 12 ft. of water. (Source: Jim Lavin, Louisiana Department of Natural Resources, Office of Mineral Resources [OMR], Petroleum Lands)

In 1937, the first offshore field was placed on production at Creole, LA, about 1.5 miles offshore in 26 ft. of water. (Source: Jim Lavin, Louisiana Department of Natural Resources, Louisiana Department of Natural Resources, OMR)

In 1947, the first offshore well, out of sight of land, was drilled by Kerr-McGee Oil Company at Ship Shoal Block 32. (Source: Jim Lavin, Louisiana Department of Natural Resources, OMR)

In 1976, Shell Oil Company announced the first deepwater discovery at their Cognac platform in Mississippi Canyon Block 194 in 1,025 ft. of water. (Source: Minerals Management Services, MMS, Milestones, Directors' page web site)

In 1977, the Department of Energy opened its St. James docking and terminal facilities and its Bayou Choctaw Strategic Petroleum Reserve (SPR) salt dome storage site to commercial operation. (Source: Department of Energy, DOE, Fossil Fuels web site)

Two years later, in 1979, a consortium of private energy firms opened the Louisiana Offshore Oil Port (LOOP) for commercial operations, including underground salt dome storage and the LOCAP pipeline connecting with the already operational CAPLINE complex, and extending east-west to refineries within Louisiana, and across the borders to Texas and Mississippi. (LOOP web site)

In 1981, Panhandle Eastern Pipeline Company completed its Liquefied Natural Gas (LNG) Storage and Regasification facilities at Lake Charles, importing LNG from Algeria by specially constructed LNG tankers for resale to the Midwest natural gas markets. (Source: *Louisiana Contractor* magazine, July 1980, "Liquefied Natural Gas Has A Role in the Energy Crisis and a Base in Louisiana")

With Congressional passage of the Oil Pollution Act of 1990 (in response to the Exxon Valdez oil spill off the coast of Alaska), the Louisiana State Legislature created the Louisiana Oil Spill Coordinators Office (LOSCO) in 1991 to pro-actively manage the state's environmental exposure to spills from the myriad pipeline, shipping, drilling, and producing locations, particularly in, and near, the environmentally sensitive coastal wetlands areas. (Source: Louisiana Oil Spill Coordinators Office brochure, Office of the Governor, State of Louisiana)

As the deepwater discoveries increased in numbers, the nation's only port serving the exclusive needs of the deepwater oil and natural gas exploration and production sector, Port Fourchon, near Leesville and Grand Isle, Louisiana expanded its land based facilities to meet the escalating needs of deepwater operators and American consumers.

In 2001, BP and Exxon announced the largest deepwater oil discovery to date in the Gulf of Mexico, located in 5,640 ft. of water, called Thunder Horse. (Source: MMS Milestones)

In 2002, Marathon and TotalFinaElf marked another milestone for deepwater operations by successfully installing a natural gas pipeline tie in 7,209 ft. of water. (Source: MMS Milestones)

In October 2002, the Minerals Management Service (MMS) implemented a Presidential Directive to fill the Strategic Petroleum Reserve (SPR) by taking Federal Government royalties "in kind", achieving a fill rate of 100,000 barrels oil per day (BOPD). (Source: MMS Milestones)

In December 2002, ChevronTexaco filed the first application for permit under the Federal Deepwater Ports Act for an LNG terminalling facility in the Gulf of Mexico, initially to be known as "Port Pelican." (Source: MMS Milestones)

Subsequent to the Chevron filing, natural gas supply and pricing has received much public attention, largely because of the special testimony of Federal Reserve Board Chairman Alan Greenspan to Congressional panels on the critical role of natural gas in the Nation's economy.

NOTE: The Department of Natural Resources wishes to thank the Research Librarians at the State Library of Louisiana for their assistance in locating these many references.