



## History of the *Second Oldest* Oilfield in the United States

### FLORENCE, COLORADO



Oil Well No. 18, Florence, Colo.  
Production Over 1,000,000 Barrels.  
Hillix's

Colorado has always been a leader when it comes to oil and gas development—from its regulations and technology, its economic impact, and even to its history. The first oil well drilled west of the Mississippi was during the 1860s in our own Florence, Colorado, which gives our great state an over 150-year history in developing its oil and gas resources. The Florence oil field is the second oldest commercial oil field in the United States. Located along the steel rails of the Denver and Rio Grande Western railroad, success in Florence spurred the search for oil in the West and established an industry that would evolve into a critical pillar of our economy and community in Colorado.

#### Humble Beginnings

Some of the first to discover oil in Colorado were the Ute Indians. In Southeastern Colorado, they skimmed the black liquid from tributaries of the Arkansas River where seeps of crude oil naturally existed and used the oil in a variety of useful ways, such as medicine, war paint, glue, waterproofing their homes, and sealing their woven baskets. The tributary came to be known as Oil Creek.

#### Fueled by a Need for Light

During the mid-19th century, Colorado was part of the Kansas Territory and there was a growing demand for more efficient and affordable means for lighting homes. The lighting sources they had included whale oil, which was a princely \$2.50/gallon, alcohol, which burned brightly but was hazardous, and candles made from rendered animal fat that were smoky and did not yield much light.

Petroleum had previously been bottled and sold to New World settlers as “Seneca Oil”, after an eastern Native American tribe who used it as a cure-all tonic. Eventually coming to be known as “Rock Oil”, the product was predominantly used at the time as a medicine to prevent dandruff, cure stomach aches, and many other ailments. It was also used as a lubricant for large gears and axle wheels, and as an adhesive.

In 1846, a Canadian geologist named Abraham Gesner distilled a new lamp fuel from coal that he called kerosene. Around the same time in 1852, a Polish pharmacist named Ignacy Lukasiewicz, who had long been interested in seep oil as a cheap alternative to whale oil, invented a modern version of the kerosene lamp, with his colleagues Jan Zah and Adam Bratkowski. This new lamp burned clear kerosene distilled from seep oil and on July 31, 1853, his lamp was made public in the local hospital to illuminate an emergency surgical operation where the doctor was impressed the lamp did not smoke.



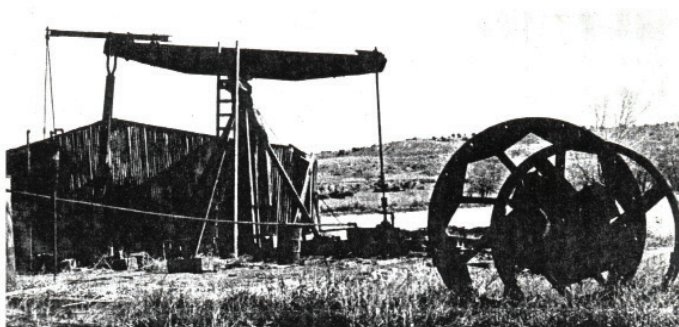
In 1855, Benjamin Silliman published a scientific report on the chemistry of petroleum and the wide range of useful products that could be made from it, called “Report on Rock Oil”. It made the revolutionary hypothesis that petroleum could be used as an illumination source. Independently of Lukasiewicz, American Robert Dietz developed a kerosene lamp in 1859. Thus, research and innovation were the catalyst for the quest for petroleum.

## Enter: Canon City, 1860

By 1860, Canon City, Colorado was an established trading center for mountain gold mining camps, like Leadville. Gold mining brought many people in proximity to visible surface occurrences of oil. A hunter-trapper turned grain-miller and sometime prospector named Gabriel Bowen reported to Canon Times on September 8, 1860 that he found a source where oil flowed at a rate of five gallons per hour. In appearance and smell, he said, it resembled “coal oil”, which was lamp fuel distilled from coal and widely used in eastern states. Bowen staked a claim on what is the Morrison Formation, and the site became known as Oil Spring. This location was eight miles north of the Oil Creek region where the Ute Indians had previously discovered oil.

News of the discovery of quickly spread to other parts of the territory and samples of Canon City oil were put on public display in Denver. The first oil well in United States’ history was drilled just a year before (1859) in Titusville, Pennsylvania. It produced 30 barrels of oil per day from a short depth of 69 feet. Because of shortages caused by the Civil War, peak prices for kerosene in Denver were \$1.25 to \$2.85 per gallon, and there was excitement around this new “black gold”.

Bowen told the Rocky Mountain News he planned to mechanically drill a well, like the ones found in Titusville, to increase the output of oil for commercial purposes. However, no commercial wells were built and for some time; the only source of oil in the field was three or four seepages. The Oil Spring site was worked sporadically from 1870 to 1950, producing about 3,000 gallons of kerosene. In the end, Oil Spring, Colorado’s first commercial oil prospect, provided the first clues to oil hunters that larger resources could be found in the area.



*Well No.1 42. Drilled in 1889, three miles northwest of Florence*

## The Birth of Florence Oil Field

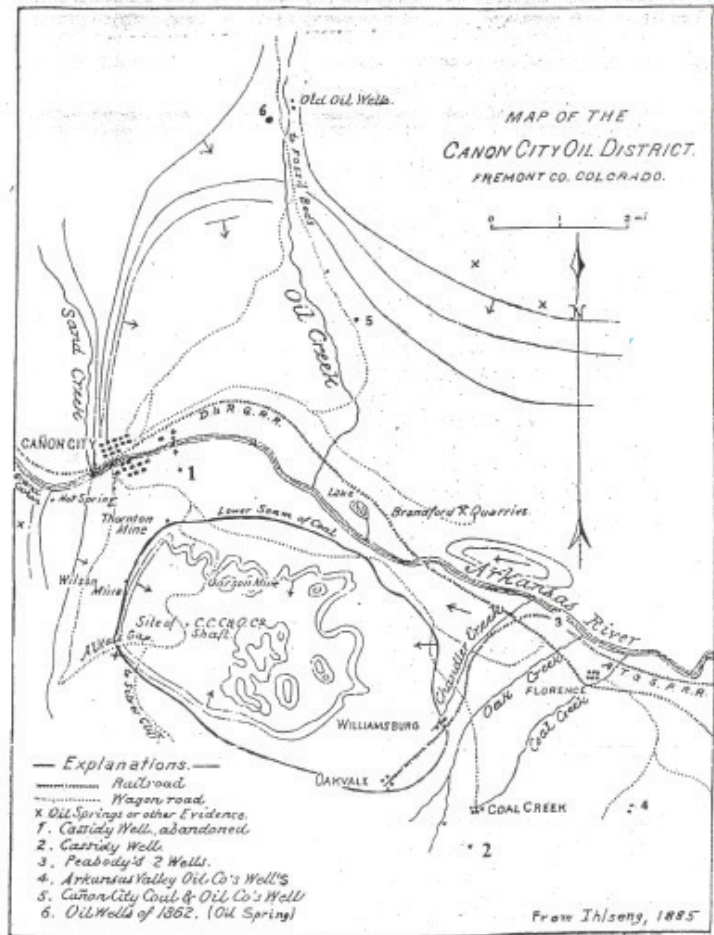
By 1870, John D. Rockefeller had founded Standard Oil Company of Ohio and had begun acquiring interests and building a monopoly. Railroads accelerated westward expansion and Continental Oil and Transportation Company also marketed refined products such as kerosene, benzene, and oil out to the West.

Overall, attempts to drill for oil in the Canon City region were unsuccessful until January of 1881 at the Canfield Well, where mining operations were underway for coal. These operations were run by Alexander Cassidy, an Iowa native who had left for Denver with his family in 1860 and had formed a firm that evolved into the Continental Oil Company. Cassidy had at one point owned and promoted Oil Spring before selling it in 1865 to Boston investors. Together with driller Issac Canfield, Cassidy drilled a water



well for coal mining operations near Florence on Coal Creek, several miles east of the Oil Spring prospect. At a depth of 1,445 feet, they encountered oil. Because natural gas spewed from the well, operations were halted for fear of a blowout. Shortly after restarting operations, the manila-rope cable broke and the tools fell to the bottom of the hole. Efforts to retrieve them were unsuccessful and the well was eventually abandoned.

News of the Canfield well created excitement and attracted a large number of people to Florence via train and to Coal Creek by foot or carriage. They carried small tins and bottles to fill with the dark oil, and land values in the vicinity skyrocketed. Leases were sought from landowners in hopes of sinking wells of their own. Within a year, three separate companies were drilling and two—United Oil Company and Florence Oil and Refining—had refineries in the east end of town that manufactured gasoline, kerosene, lubricating oils, greases, and paraffin wax. However, development was limited by the high cost of shipping refined products to distant markets. In 1888, Continental bought a minority interest in the leading producer, United Oil Company, and made it possible to avoid high transportation costs from the east, distributing illuminating and lubricating oil locally as well as to Denver, Pueblo, Aspen, and Leadville.



Earliest known map showing the locations of the first oil wells drilled in Fremont County (Ihleng, 1885, Colorado School of Mines)

United Oil Co. Refinery, Florence, Colo.



United Refinery, Florence, Colorado

## Florence in Full Bloom

By the 20th century, Florence had grown to 10,000 residents. At the height of the boom, there were twenty-five oil companies, three refineries, seven gold ore mills, and more than two dozen coal mines. The oil field covered 14 square miles, and included the town of Florence where most of the wells were located. For almost two decades, Florence's refineries were the exclusive source of petroleum products for the states and territories of the intermountain West. In the 1890s, oil



production from the fields reached a peak of 3,000 barrels per day. From a total of 100,000 barrels during 1887, output rose to a peak of 824,000 barrels in 1892 . Between 1890 and 1920, the area totaled over 500 producing wells. During the 1920s, the Florence field extended to Canon City. While no more than 50 wells were considered prolific, there was always the hope that the next well drilled would be the “big one”.



*Five teams of horses were used to pull this wagon loaded with a steam boiler used to supply power at the early oil wells, circa 1900*

## Beyond Florence

After Florence gained speed, local ventures moved 100 miles north to Boulder in 1901. Florence driller Isaac Canfield noticed Boulder’s topography was similar to Florence. Oil seeps and petroleum odors abounded, and Canfield pinpointed the first oil source using a dowsing rod. Boulder soon became Colorado’s second successful oilfield, experiencing a boom of 100 wells in its first five years and attracting over 100 oil companies, some that would later be owned by BP/Amaco and ConocoPhillips. Though, the greatest economic impact to Boulder was their population growth, which doubled in the decade following. Today, Boulder hosts one of the oldest producing wells in the West, which was the first commercial well drilled in the area in 1901: The McKenzie No. 1-21.

From Boulder, development expanded north to the Salt Creek field in Wyoming. By the 1920s, geologists were applying new technologies like magnetic surveys, electrical impulses, radio waves, and shock transmissions to locate potential resources, and new fields opened in Colorado: Wellington and Fort Collins in Larimer County (1923, 1924), Hamilton Dome in Moffat County (1924), Tow Creek in Routt County (1924), Berthoud in Larimer (1925), North McCallum in Jackson County (1926), Canon City in Fremont County (1926), Iles Dome in Moffat County (1927), and South McCallum in Jackson County (1928). From 1926 to 1929, Colorado’s oil production surpassed 2 million barrels a year.



## The End of an Era: Beginning of a New One

During this time, automobiles were spurring a search for more crude oil resources, growing exponentially in number from 8,000 in 1900 to 468,500 in 1910. Henry Ford's assembly line Model T made motorcars affordable for a large segment of the American people, and sales soared to more than 9 million in 1920, 20 million in 1925, and 26.5 million by 1930. In Colorado, gasoline purchases jumped from 5.8 million gallons in 1913 to 51.9 million in 1920. By 1913, refineries produced not lamp oil, but gasoline for vehicles powered by the internal-combustion engine.

Today, little remains of the Florence oil field. Annual production had gradually fallen to 317,000 barrels by 1900. By then, the demand for petroleum products in the region exceeded the capacity of Florence refineries. The field surpassed 200,000 barrels of crude oil for the last time in 1915. Florence's ore milling was diverted to Colorado Springs, which was followed by the closure of coal mines and declining oil production. Refinery was transferred to Commerce City, where a new, state-of-the-art refinery had been built. Although production today is minimal, the Florence field wells still produce a few barrels a day.

By the time the boom in Florence was winding down, Colorado's oil industry was vibrant and robust. Though the Great Depression would have a negative impact, emergency government measures sustained local exploration and development. World War II's military and industrial mobilization set the stage for another round of expansion in the postwar years, which included a revolutionary new technology called "hydrofracturing". Hydrofracturing could reach what was thought to be impenetrable rock at unreachable depths.

For more information on where this technology is today, check out our fact sheets!

*Photos generously provided by the Carol Fox Archive, Florence, CO.*

## Resources

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