

OILFIELD SCRAPBOOK

Views of the Allen County petroleum industry.

Compiled by Barbara Oringderff, Editor, and Jim Brown Territorial Design Director.

These photographs of the petroleum industry in Allen County, Kansas show oil wells, refineries and various related equipment. The photo below, taken November 11, 1918, shows George B. McLeod's "Liberty Well No. 1." (Our sincere thanks to the Allen County Historical Society for their help, support, and for providing most of the Allen County antique photographs. We also thank the Kansas State Historical Society, for their support and generosity for providing several other photos from Allen County.)



NATURAL GAS BOOM BUILT IOLA

(Editor's Note: Following are excerpts and paraphrases of an article written by Angelo Scott, president of the Kansas State Historical Society 1953-1954 at the time the article was written, Scott was editor and publisher of the *Iola Register* from 1938 to 1965.)

Around the year 1893 a company of Iola businessmen was formed for the express purpose of prospecting for natural gas. The firm included Robert H. Steveson, William H. McClure, W. A. Cowan George A. Bowlus, H. L. Henderson and others.

They obtained a charter from the city permitting them to pipe the city for the distribution of gas should they find it.

Over a period of time, these men drilled four wells, all of which were failures.

Finally, they sold their interests, including the city franchise, to Joseph Paulin and W. F. Pryor with the stipulation that six wells should be drilled before they abandoned the field.

Five of these were drilled in the west part of Iola to depths of 250 to 450 feet, none producing gas in any quantity. It was decided that the sixth to be located in the south center of town, should be a deep test, going down 1,000 feet if necessary.

Drama attended the drilling of the final well — the one which set off the boom that turned Iola from a sleepy village to a roaring industrial center. The editor of the *Register*,

Charles F. Scott, offered the following version of what happened.

"Finally Messrs, Pryor and Paulin decided that they would risk everything on one deep hole. And so passing through shallow sand they drilled on and on — until their money was all gone. Pryor, having exhausted his funds, tried in vain to mortgage his entire plant, the work of 10 years, for \$500. Finally a personal friend said to him, 'Go ahead for 24 hours and I will pay the bills.' Within those 24 hours real gas was struck, the plant which could not be mortgaged 24 hours earlier for \$500 was worth 20 times that sum and the transformation of Iola from a country village into a manufacturing city was assured."

The well showed a rock pressure of 320 pounds and an open flow of three to four million cubic feet of gas per day.

The Iola gas boom was on.

The news of the discovery, spread rapidly.

In June 1894 the Palmer Oil and Gas Company of Fostoria, Ohio, sent representatives to Iola and leased several thousand acres of land. They proceeded at once to sink a number of wells, all of which produced from four to 14 million cubic feet a day. The field

developed steadily finally measuring roughly eight miles long and four miles wide.

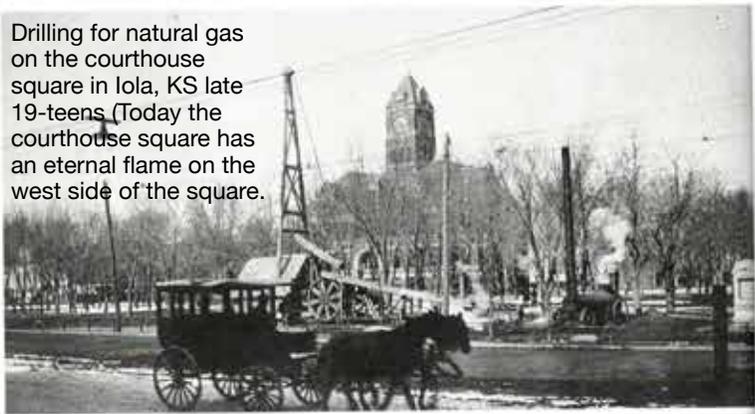
In 1906 a new field was discovered to the north late in the same year a third field was developed.

Here was gas in previously undreamed of volume. And the people who found it having no experience to guide them, spent it without restraint as if it would last forever. Indeed many of them thought it might.

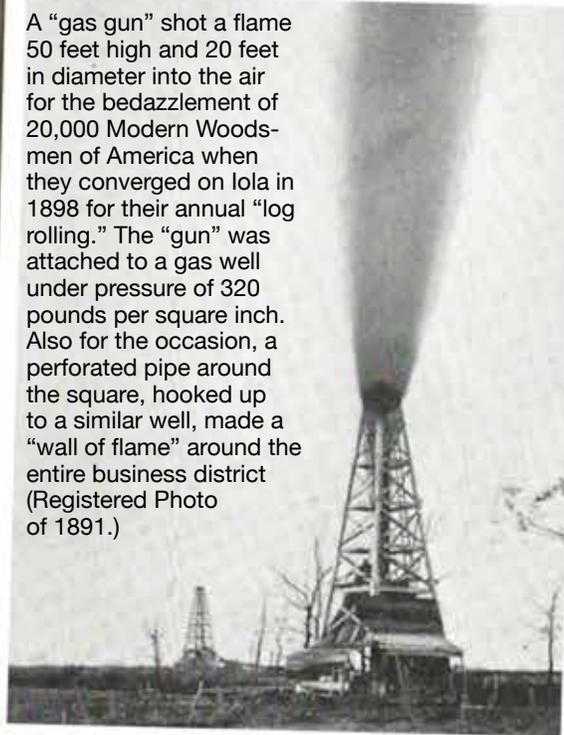
Some "experts" of the day predicted the Iola fields would last "for hundreds of years to come." So down the primrose path they went writing into history one of the most remarkable industrial booms ever experienced in Kansas.

Industries were induced to move to Iola through the offer of free gas. Smelters, cement plants, brick plants, iron works, and various small manufacturing plants and service establishments moved into Iola.

Drilling for natural gas on the courthouse square in Iola, KS late 19-teens (Today the courthouse square has an eternal flame on the west side of the square.



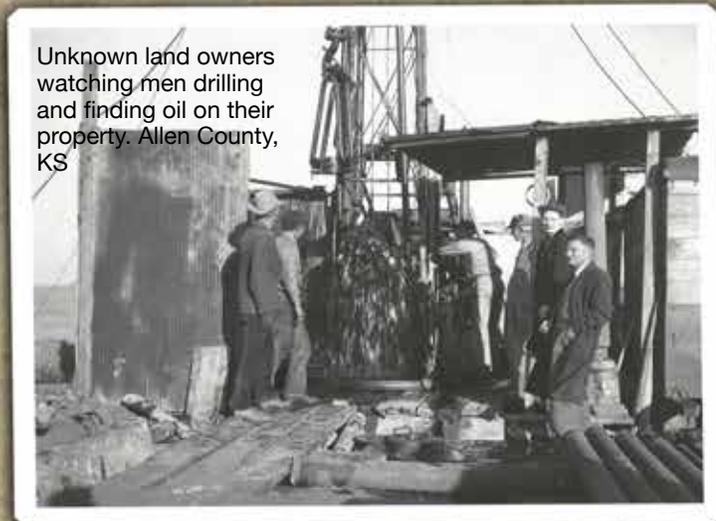
A "gas gun" shot a flame 50 feet high and 20 feet in diameter into the air for the bedazzlement of 20,000 Modern Woodsmen of America when they converged on Iola in 1898 for their annual "log rolling." The "gun" was attached to a gas well under pressure of 320 pounds per square inch. Also for the occasion, a perforated pipe around the square, hooked up to a similar well, made a "wall of flame" around the entire business district (Registered Photo of 1891.)



COLT TRACES HISTORY OF OIL IN COUNTY

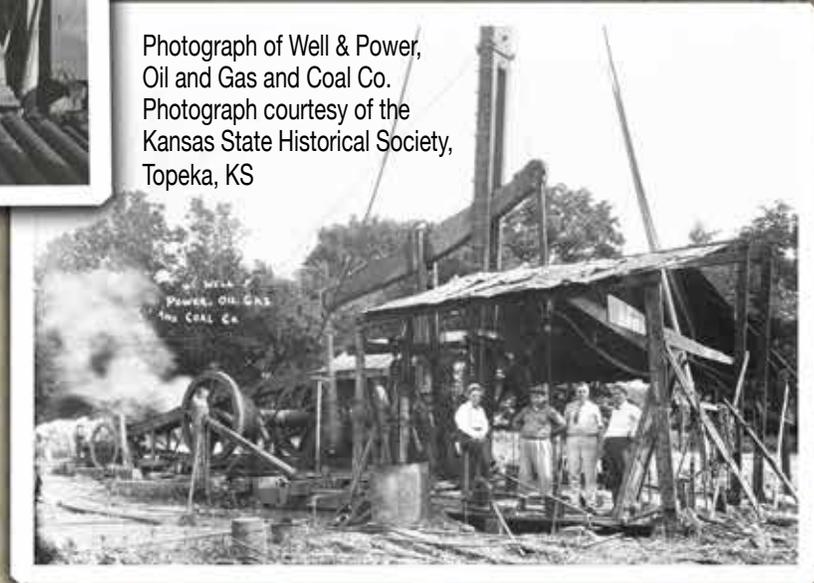


Unknown land owners watching men drilling and finding oil on their property. Allen County, KS



Mack C. Colt. "In Allen County our firm has been producing oil since 1931, some of it from leases operated even earlier by my father. Our combined operations have covered over half the time oil has been produced in this county. We have been one of the most active developers of water flooded recovery oil in Allen County.

Photograph of Well & Power, Oil and Gas and Coal Co. Photograph courtesy of the Kansas State Historical Society, Topeka, KS



The Register Quarterly Report, Thursday, October 12, 1978. (Editor's Note: Mack Colt president of Mack C. Colt, Inc. has been active in the oil industry in Allen County since 1931. He followed his father into business and the two between them encompass most of the history of oil production in the U.S. Mr. Colt wrote this article summarizing very briefly the history of oil production here and touching on the contribution his company has made to that story.)

By Mack C. Colt

Crude oil and natural gas have been important to the economy of Allen County and its residents for over a century. Gas was discovered near Iola in 1873. About 10 years later oil was found near Humbolt. Allen County has been fortunate that, under much of its area, geologic conditions were favorable to the accumulation of oil and gas. Unfortunately, though, the sedimentary type of rocks from which oil and gas are produced has been shown by the drill bit in many wells to be relatively thin in this county, so they have fewer possible productive zones that are found other places.

Much has already been written about the gas boom and bust days of Iola in the earlier years of this century, so this article will be about oil operations, past and present, in Allen County, and with a look at future possibilities as well. Little has been written or known about our oil development as it has been more gradual without the boom

town history of many other areas. However, this oil development has followed the general trend in oil history in our country and the whole world.

Oil was first produced in the U.S. in Pennsylvania in Civil War days — not much before its discovery near Humbolt. Early day production in many fields depended on the underground pressure in the producing formation pushing the oil to the surface. Many oil fields didn't have enough pressure to flow very long, so it was necessary to pump these wells, as only a small percent of the oil could be recovered by natural flow. A pumping or lifting process of some kind, with many variations and improvements, is eventually necessary in almost all oil fields, including those in Allen County.



Photograph courtesy of the
Kansas State Historical Society,
Topeka, KS



A fished oil well pump
with 3 unknown men
next to it. Photograph
courtesy of the Kansas
State Historical Society,
Topeka, KS.



The next step in production improvement started back in Pennsylvania when oil operators noticed that, after increasing the oil output by pumping, sooner or later it declined again. This observation led to attempts to break down the oil bearing rock near the well bore so oil could come in more freely. A process that started very simply by the use of explosives such as nitroglycerine, has evolved all over the world as well as Allen County into much more sophisticated methods, employing acids, hydraulic fracturing and other means.

The next improvement in the continuing attempt to recover more of the oil came when operators in Pennsylvania noticed that, many times wells which were near their economic limit started making more oil again. This favorable production change came after adjoining wells had been abandoned allowing water to enter the sand.

It was soon realized that when wells in a field were near their economic limit it was possible to make the field profitable again by converting some of the original producing wells to input, using air, gas or water. This process has led to scientifically controlled gas drives or water flooding in oil reserves where it worked economically; this development was delayed in Kansas until the middle '30s since it was illegal to inject water into the oil formation until then. Since the law was changed, much if not most of the oil in Allen County has been produced by such controlled waterflooding. All during the history of oil production over the world operators and their engineers have realized that even the most advanced oil recovery processes in use left a large percent — possibly half — of the original oil in a reservoir still locked in and lost forever unless some economical method could recover another substantial portion of this known but difficult to recover oil reserve.

The Arab embargo and the growing realization that we depend on foreign oil, vulnerable to embargo or cut off, for about half of our crude oil needs led to a tremendously increased study and ex-

pansion of enhanced recovery projects. Operators and engineers also have realized for years, that for many fields, it was essential to use as many of the existing wells as possible in such new processes. If these wells were abandoned, the cost of redrilling for the remaining oil in place could be prohibitive; it would simply be too expensive to redrill these wells to use what, at best, are going to be high cost oil recovery processes.

In Allen County, even before 1973 there were pilot projects using fire, carbon dioxide and polymer thickened water, to mention only a few newer methods. Many of these recovered more oil, but, at the

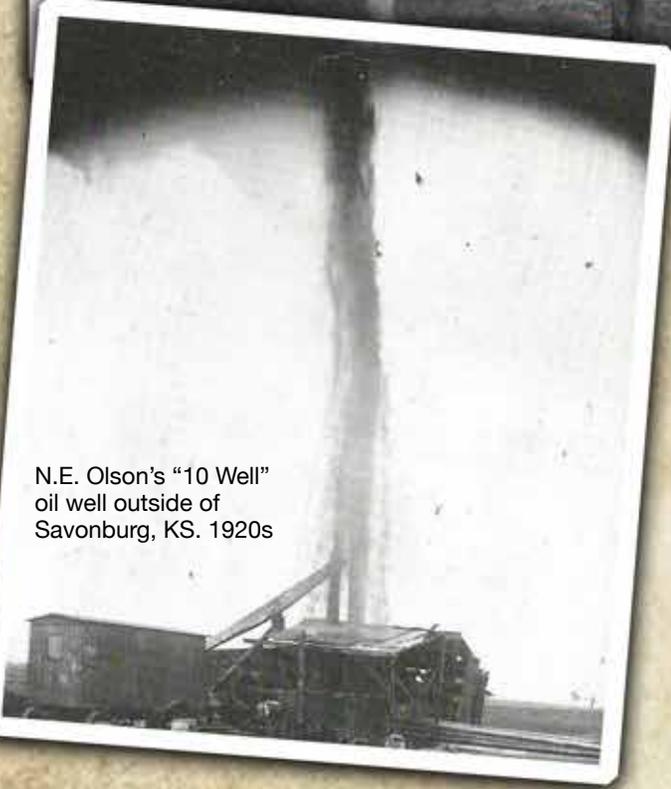
Devonian Oil Co. which operated 2 miles west of Moran, KS. 19-teens



pre-1973 oil prices, this extra recovery was not profitable, even at the then lower operating and development costs.

These various newer proposed and experimental methods of recovery were given a confusing number of names, such as "tertiary recovery," "fire," "steam," "polymer," "enhanced recovery" and many others, generally descriptive of the particular process used. Finally the U.S. government, in its regulations, started referring to all of

N.E. Olson's "10 Well" oil well outside of Savonburg, KS. 1920s



these processes as “enhanced recovery.” That now seems to be the generally accepted name for oil recovery methods not usually practiced or economically successful before the 1973 embargo.

By 1908 Iola’s 1,500 population had doubled and the town was straining at every seam.

The industries, according to the *Register* of September 1, 1898, “located here for the reason that they have been able to secure natural gas in unlimited quantities absolutely free through the enlightenment generosity of the citizens of Iola.” But the citizens were almost equally fortunate. The *Register* quoted the following standard charges:

For cook stove in private home. \$1 per month.

For heating stove in private home, \$1 a month during winter months.

Stoves and lights could be burned 24 hours a day if desired.

There was no metering no limitation.

The townspeople would even burn up gas

for fun if the occasion suggested itself.

Such an occasion was September 1, 1891 when Iola entertained 20,000 members of the Modern Woodmen of America.

Those who came from the East for the celebration were greeted at LaHarpe by a ‘great arch made of gas tubing and spelling in flaming letters the words, “THERE ARE OTHERS,” spanning the principal street of the village, flaring torches in every door, yard and screaming whistles at the smelters.

The entire square in Iola was surrounded with pipes with holes drilled in them at regular intervals and connected to a gas well. When the gas was turned on and ignited, the park was surrounded by a wall of flames.

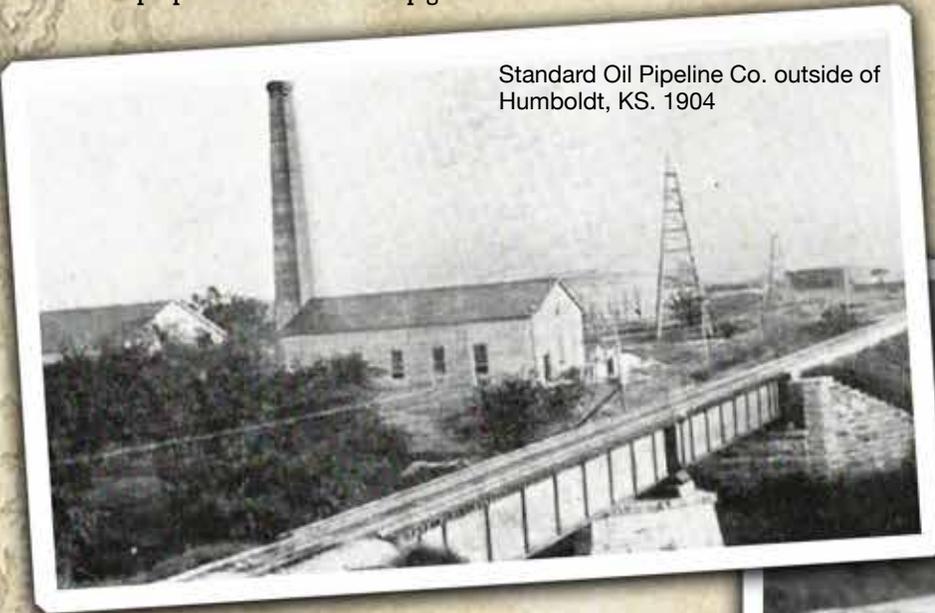
Iola continued to use and waste gas unregrettingly for the next 10 years. It also continued to grow amazingly.

The population was in excess of 14,000,

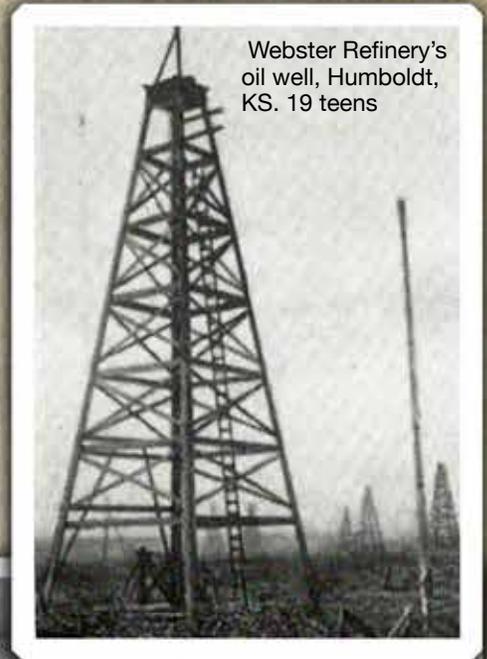
Iola bank deposits totaled over \$16 million compared to half a million in 1900.

There seemed to be plenty of basis for optimism. The gas field at that time was probably the largest and strongest in the world. There were 308 producing wells with a combined capacity of 750 million cubic feet of gas every 24 hours.

An additional element of optimism lay in the fact that along with the development of gas immediately around the city of Iola



Standard Oil Pipeline Co. outside of Humboldt, KS. 1904



Webster Refinery's oil well, Humboldt, KS. 19 teens

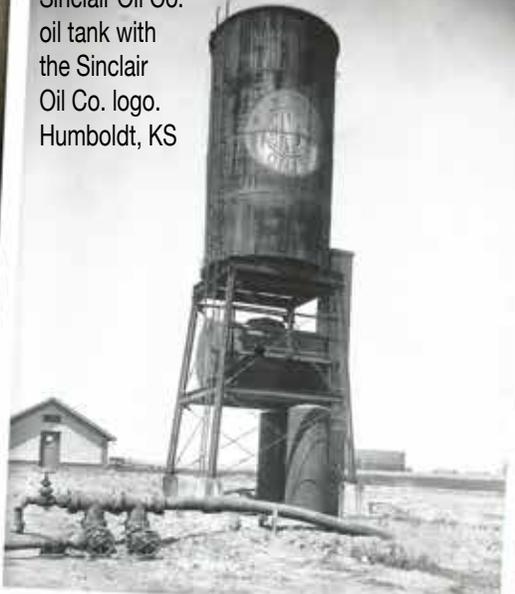


Sinclair Pipeline Co. oil tank farms, Humboldt, KS. (These oil tankers which are still standing today, sit just west of US169 on the south side of Humboldt, KS)

Barnsdall Refining Co. building, Iola, KS.



Sinclair Oil Co. oil tank with the Sinclair Oil Co. logo. Humboldt, KS



Hitting oil while drilling outside of Iola, KS.



there had been important discoveries of oil next to Humboldt, From 10,000 to 15,000 barrels of oil a month were being produced.

It was the view of the operator of the refinery, C. D. Webster, that if he gas did ever play out, oil could easily take its place.

“The life of the Iola gas field had been variously estimated at from 50 to a 100 years by gas experts who made the subject a study, Iola even its gas field were not as good as the experts claimed . . . has the oil field to fall back on. It absolutely solves the fuel problem of this county beyond a question.”

Tragic miscalculations were made.

In 1907 whispers of falling pressure throughout the gas field began to be heard. Within a year the whisper turned to shudders.

By the end of 1910, six of the nine smelters in the area had shut down for lack of fuel.

The boom was over. The bubble had burst.

Of course not everything faded at once.

The total liquidation of the boon was spread out over many years and there was even a considerable salvage in the end — enough to leave Iola a solid town of about 7,000 instead of the wayside village of 1,500 it might have remained if gas had never been discovered at all.

