

## The Cable Tool Oil Field 1936

The first cable tool oil field drilling rig was introduced in Texas in 1866. A cable tool rig consisted of a steel drilling cable with a bit suspended at the end. The bit would be dropped into a hole, and the impact would break up the ground. A bail was then used to remove broken pieces. This method allowed for deeper penetration of the earth, a necessity for the Southwest region of the United States. The cable tool rig also helped bring about some of the first important oil wells of the Permian Basin.

At this antique oil field site in 1936, G.R. Davis, a local rancher and owner of Chimney Creek Ranch since 1920, leased part of his acreage to Baker and Pardue Oil Company of Breckenridge, Texas. Numerous cable tool well locations were drilled to a depth of some 1,600 feet to a zone known as the Bluff Creek Sand. Each well produced somewhere between 5 and 25 barrels of oil per day. At that time, the price of oil per barrel was less than \$3.00.

At the center of this field is the Central Power Unit (CPU) with five pump jacks, called Oklahoma jacks, surrounding the unit. The CPU was initially powered by its own production of natural gas, and consisted of two large metal wheels with associated belts that would produce a back and forth motion. The wheels were connected to a series of pulling rods that extended out as far as a quarter of a mile to each Oklahoma jack. This in turn provided the now familiar up and down pumping motion that gives them the common name of “walking beams.” The resulting pressure from the jacks would draw the oil up to the surface and allow it to flow to a nearby tank battery. This field operated until the early 1950’s with the CPU then being powered by electricity.

In 1934, Howard Hughes, Sr., patented the three-cone rotary drill bit, and the cable tool drilling era slowly phased out. Still, many of these rigs remain scattered throughout the West Texas countryside as a reminder of the early days of the Texas oil industry. This display of a cable tool rig, a central power unit, and Oklahoma jacks preserves the history of an antique cable tool rig era oil field.