Shooters - A “Fracking” History

Bruce Wells[1]

[1]American Oil & Gas Historical Society, Executive Director

ABSTRACT

Civil War veteran Col. Edward A.L. Roberts in April 1865 received the first of his many U.S. patents for an "exploding torpedo." His invention used controlled downhole explosions “to fracture oil-bearing formations and increase oil production.” The Roberts torpedo, filled with gunpowder (later nitroglycerin), was tamped by water and ignited by a weight dropped along a suspension wire to a percussion cap. The resulting fracture greatly enhanced petroleum production; Col. Roberts' invention was among the great technological achievements of the new U.S. petroleum industry. With its exclusive patent licenses, the Roberts Petroleum Torpedo Company charged up to $200 per torpedo “shoot” and a one-fifteenth royalty of the increased flow of oil. Seeking to avoid the Roberts Company fee, some producers secretly hired unlicensed practitioners who operated at night with their own devices – and “moonlighter” entered the American vocabulary. Col. Roberts later said he got his idea at the 1863 battle at Fredericksburg, Virgina, where he led one of the doomed assaults of Marye's Heights. Not long after World War II, an experimental natural well was fractured hydraulically at Hugoton, Kansas, proving the latest fracturing technology increased gas well productivity. In March 1949, a team of experts from Halliburton and Stanolind companies "fracked" an oil well near Duncan, Oklahoma, the first commercial application of hydraulic fracturing.