ABSTRACTS

HISTORY AND EVOLUTION OF THE OFFSHORE OIL AND GAS INDUSTRY IN SOUTHERN LOUISIANA: A BRIEF LOOK AT COMMERCIAL DIVING AND THE ROLE OF PEOPLE, TECHNOLOGY, AND THE ORGANIZATION OF WORK

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The offshore oil and gas industry in southern Louisiana has a complex history marked by environmental, social, and political challenges. The move offshore produced its own unique contests, perhaps the most obvious of these including the construction drilling rigs and platforms that can withstand wave action, the development of techniques for cutting and welding metals underwater, and the transportation of materials and equipment over vast expanses of open water. A close look reveals that the social challenges are equally daunting: attracting and maintaining a workforce able and willing to live on a small metal structure for weeks at a time or to work hundreds and even thousands of feet below the water's surface; organizing a workforce to take action and achieve results quickly and efficiently; and establishing a huge and oftentimes uncertain industry amid isolated rural communities. This paper addresses these technological and social challenges.

The offshore oil and gas industry is perceived to have a specific beginning - the first successful completion of a well out of sight of land- but the people and technology that made this industry possible, and the social and political environments within which it evolved, date back centuries earlier. Both steady modification and sudden breakthroughs characterize this history. This paper explores this process with a brief overview of some of the highlights of this evolution and the specific example of diving and underwater welding to illustrate the complex interplay between human and technical achievements. Though supported with data from elsewhere, the information in this paper comes from workers who experienced this history firsthand.

THE OIL PHOTOGRAPHY PROJECTS OF ROY E. STRYKER, 1939-1950

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Roy Stryker, a former economics lecturer at Columbia University, directed some of the most significant documentary photographic projects in American history even though he was not a photographer. Two of these assignments—as chief of the Photographic Division of the Farm Security Administration (FSA) during the New Deal era (1935-1942) and as director of the Standard Oil Company (New Jersey; SONJ) documentary photographic project (1943-1950)—resulted in an extensive pictorial history of the oil

industry as captured by many of America's leading documentary photographers. The FSA project at first had a focus of rural poverty documentation, expanding over time and eventually focusing on the post-Pearl Harbor home front. Two photographers, Russell Lee and John Vachon, were responsible for most petroleum-related imagery from 1939-1942. Lee photographed oil field regions of East Texas and Oklahoma; Vachon photographed panhandle Texas, Gulf Coast refineries, the mid-continent fields, and the Big Inch pipeline construction from Longview, Texas, to the northeast U.S. The Standard Oil project as directed by Stryker was "to get together the story of oil in terms of people—in terms of machinery and equipment with emphasis on people." SONJ provided the financial support and freedom to document all aspects of the very broadly-defined story of petroleum, and photographers under Stryker had extensive interpretive and aesthetic freedom. When Stryker left in 1950, around 70,000 photographs had been acquired in the SONJ project. Notable oil-region projects included—Plantation Pipeline, Oklahoma fields, S. LA geophysics (Harold Corsini); Tomball, TX (Esther Bubley); south LA refineries, river transportation, WY fields (Edwin and Louise Rosskam); "swamp shooters", west TX fields (Russell Lee).

EIGHT DECADES OF ANTHROPOGENIC AND NATURAL LANDSCAPE CHANGE IN SMACKOVER FIELD, ARKANSAS

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Discovery and recovery of substantial petroleum in the unregulated Smackover oilfield (Smackover Field) in 1922 resulted in massive surficial environmental impacts, and recovery transformations are continuing today. The technically and environmentally unsophisticated petroleum industry and social infrastructure of the 1920s and following decades was nonetheless spurred toward ever greater production by a nation eager for oil, jobs, and rural development. Except for anomalies such as the Great Depression, people prospered, world wars were fought, and industry surged forward making the United States a secure world power. During these early decades, intentional and accidental releases of produced fluids (petroleum hydrocarbons and saltwater) took a toll on the natural landscape.

Beginning in 1922, the first ten years of production resulted in the release of five to ten million barrels of oil and over one billion barrels of saltwater to the landscape surface. The oil losses were due to technical problems dealing with containment security, recovery economics from oil emulsions, and inadequate earthen storage pit volumes, whereas the saltwater was intentionally released. In addition to relict pit scars, terrestrial vegetation and aquatic life in Smackover Creek and the Ouachita River suffered from decades of excessive salinity and oil spills.

Loss of native pine and hardwood forest vegetation in the uplands exposed topsoil and subsoil to erosion forces. Suspended by stormwater and released saltwater, upland soil particulate migrated across toeslope drainageways. Although substantial soil