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STUDY TITLE: The Current Dynamics of the Oil and Gas Industry

REPORT TITLE: Dynamics of the Oil and Gas Industry in the Gulf of Mexico: 1980-2000, Final Report

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SPONSORING OCS REGION: Gulf of Mexico

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KEY WORDS: History, price, corporate organization and strategy, economics, finance, technology, labor, regulatory environment, September 11th aftermath.

BACKGROUND: The Gulf of Mexico (GOM) has a large share of the country's known offshore oil and gas resources and dominates U.S. offshore oil and gas activity. Much of the technology needed to push farther into the gulf and other parts of the world was initially developed by the offshore oil industry operating in the GOM. The role of the oil and gas industry operating in the gulf has changed over time. Traditionally, the region supported the industry locally and as it expanded internationally. In more recent years, the flow has been from abroad to the GOM.

The GOM was known as the "Dead Sea" in the mid-1980's because the decline in oil and gas prices after 1981 made the higher cost of offshore exploration and operation unattractive. That changed with a variety of factors or events, including the discovery of subsalt reservoirs in shallow water, lower prices from service providers, production from new deepwater reservoirs, technological advances, and the Deep Water Royalty Relief Act. The dynamics of the oil and gas industry have changed since the Minerals Management Service was established in 1982. Some of the changes of the last 20 years were unanticipated; others were slow to emerge as trends. This study sought to increase the understanding of the sources and forces of social, economic, and industry impacts from the oil and gas industry operating in the GOM and what those sources and forces mean for the future.

OBJECTIVES: (1) To gather and review the knowledge of local, national, and international changes in the oil industry operating in the Gulf of Mexico between 1980 and 2000 and (2) To relate the significance and the implications of those changes to social, economic, and industry impacts in the Gulf of Mexico.

DESCRIPTION: The study focused on two issue areas and four cross-cutting topics as shown in the following table:

Topic	Issue Area	
	Oil and Gas Price Change	Corporate Organization and Strategy
Economics and Finance		
Technology		
Labor		
Regulatory Environment		

Changes that occurred in the issue areas and cross cutting topics reflect changes in industry in general, the oil and gas industry specifically, or individual companies or projects.

One of the Appendices, written in 2002, examines dynamics in the industry related to stakeholder expectations, globalization, and risk management after September 11, 2001.

SIGNIFICANT CONCLUSIONS: The following factors stand out as major forces that created change in the oil and gas industry between 1980 and 2000: 1) increasing volatility of prices, 2) rising costs of oil and gas projects, 3) globalization of the industry, 4) increased concern for shareholder value, 5) ascendance of technology, and 6) management of risk.

A convergence of factors led to the resurgence of the GOM. The shift to areawide leasing allowed companies to assemble GOM tracts sufficiently large enough to increase the potential for finding oil and gas and to justify deepwater exploration. The Deep Water Royalty Relief Act allowed MMS to suspend royalty payments to increase interest in deepwater exploration. Seismic imaging reduced the probability that exploration would be unsuccessful and that additional oil and gas would be found in properties being reworked. Technology also made improvements in production. Prices were generally improving in the mid-1990's. Companies whose business focus is the GOM, with favorable technology, regulatory, and price factors, began a series of exploration and development activities which resulted in the resurgence of the GOM.

STUDY RESULTS: Changes in the industry between 1980 and 2000 led to industry and socioeconomic impacts onshore and offshore. The industry is now a high tech, new economy industry. Risk management, corporate strategy, technology, and other factors have pushed the oil and gas industry in the direction of increasingly complex arrangements and operations. In the 20-year period, the strategy shifted from science-based to economic-based production. Technology has generally allowed the industry to produce more oil and gas with less infrastructure and fewer personnel. The time required to do work has been reduced and the amount of information to do work has increased.

A significant change related to personnel occurred in the last 20 years. The industry responded to price volatility with a series of cost cutting programs that changed the way the industry uses personnel and how prospective workers respond to the industry. The cost cutting programs have left the industry with a shortage of personnel in all areas, reduced worker loyalty, dispelled the idea of job security, and made recruitment more difficult.

The basic steps to find, produce, and market petroleum remain unchanged and involve both onshore and offshore activities and result in onshore and offshore impacts. Changes in the industry are modifying these impacts. The rise of information technology is redefining where work is done. The ability to transmit electronically large amounts of information with ease and monitor physical activities remotely means that workers, in many cases, can be physically remote from where work is done. Technology advances have meant more can be done with fewer people. Corporate decision-making has led to the ascendancy of Houston as a concentrated center of oil and gas companies and employment, shifting activities from New Orleans, Denver, Tulsa, and other formerly prominent oil and gas cities.

STUDY PRODUCTS: Wallace, B., J. Duberg, and J. Kirkley. 2003. Dynamics of the Oil and Gas Industry in the Gulf of Mexico; Final Report. OCS Study 2003-004. Prepared by TechLaw, Inc. U.S. Dept. of the Interior, Minerals Mgmt. Service, Gulf of Mexico OCS Region, New Orleans, LA. 253 pp.

Dynamics of the Oil and Gas Industry in the Gulf of Mexico: 1980-2000: electronic bibliography.