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Sommario/riassunto

The demand for oil and gas has brought exploration and production to unprecedented depths of the world’s oceans. Currently, over 50% of the oil from the Gulf of Mexico now comes from waters in excess of 1,500 meters (one mile) deep, where no oil was produced just 20 years ago. The Deepwater Horizon oil spill blowout did much to change the perception of oil spills as coming just from tanker accidents, train derailments, and pipeline ruptures. In fact, beginning with the Ixtoc 1

spill off Campeche, Mexico in 1979-1980, there have been a series of large spill events originating at the sea bottom and creating a myriad of new environmental and well control challenges. This volume explores the physics, chemistry, sub-surface oil deposition and environmental impacts of deep oil spills. Key lessons learned from the responses to previous deep spills, as well as unresolved scientific questions for additional research are highlighted, all of which are appropriate for governmental regulators, politicians, industry decision-makers, first responders, researchers and students wanting an incisive overview of issues surrounding deep-water oil and gas production.