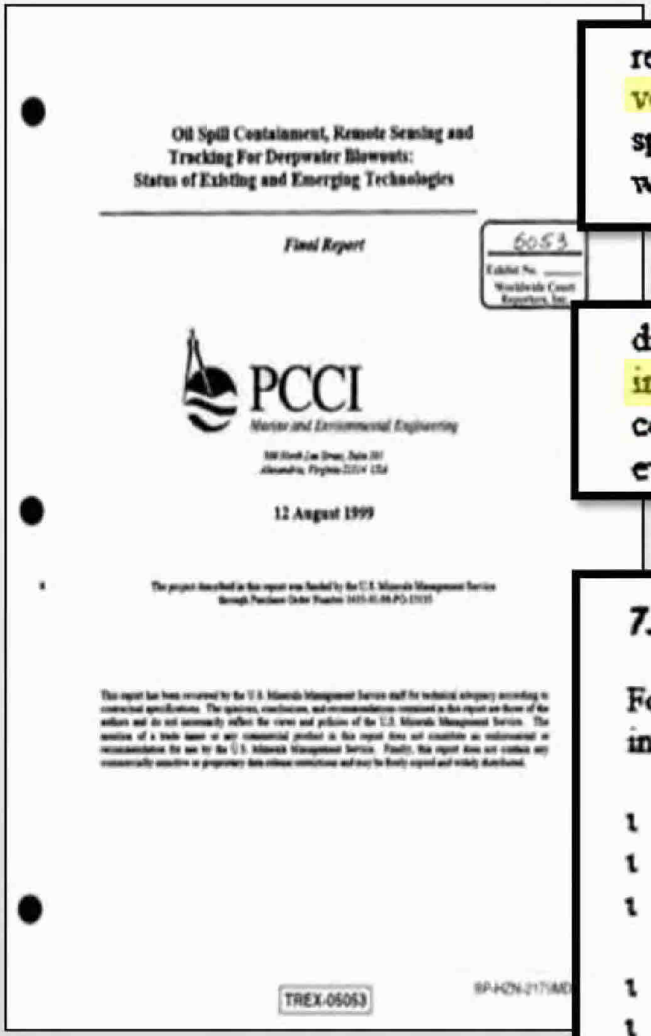
PCCI Final Report: Oil Spill Containment, Remote Sensing and Tracking for Deepwater Blowouts: Status of Existing and Emerging Technologies (1999)



Oil Spill Containment, Remote Sensing and Tracking For Deepwater Blowouts: Status of Existing and Emerging Technologies

Final Report

6053

PCCI

Marine and Environmental Engineering

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TREX-05053

releases. The best options for subsea blowout spill control seem to be technologies to facilitate vertical intervention to contain the flow using well control techniques, and technologies for speeding the process of natural degradation of the released oil using dispersants applied at the wellhead.

TREX-5053.6

dramatically. As the industry advances into deepwater exploration, the risks of blow out increase, due to difficulties related to kick detection and control procedures under deepwater conditions. There is very little blowout experience in deepwater from which to draw when evaluating countermeasures.

TREX-5053.7

7.5 Problem Summary

For subsea oil containment the technical hurdles to be overcome during a deepwater blowout include:

- Predicting the behavior of deepwater currents
- Ability to manipulate heavy objects on the sea bed
- Ability to design subsea collectors that are flexible enough to cap a large range of subsea wellhead assemblies and accommodate a high volume of recovered oil, gas and water
- Ability to approach the blowing well and install containment devices on the seafloor
- Lack of standardization in subsea wellhead design

TREX-5053.43

Source: TREX-5053.6, 5053.7, 5053.43