

**TESTIMONY OF
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BEFORE THE U.S. SENATE
SUBCOMMITTEE ON OCEANS, ATMOSPHERE, FISHERIES, AND COAST GUARD
COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION
REGARDING CURRENT AND ANTICIPATED FUTURE MARINE ACTIVITY IN THE
ARCTIC AND LESSONS LEARNED FROM SHELL'S 2012 ALASKA OFFSHORE OIL
AND GAS EXPLORATION PROGRAM**

MARCH 27, 2013

Mr. Chairman and Members of the Subcommittee, I want to thank you for this timely hearing to examine the current and anticipated future offshore activity in the Arctic. On March 8, I delivered a report to Secretary of the Interior Ken Salazar regarding the review I led of Shell's 2012 Alaska Offshore Oil and Gas Exploration Program (Report), which the Department of the Interior (DOI) released to the public on March 14. I appreciate this opportunity to discuss this review, as well as long term planning with respect to offshore exploration in the Arctic.

Offshore oil and gas development is a key component of the Administration's all-of-the-above energy strategy to grow America's economy, reduce our dependence on foreign oil and to create jobs here at home. As is emphasized in the Report, the Administration is committed to supporting safe and responsible exploration of potential energy resources in frontier areas such as the Arctic. The Arctic holds substantial oil and gas potential, but also presents unique technical challenges as well as environmental and cultural considerations. The Bureau of Ocean Energy Management (BOEM) estimates that the Chukchi Sea Planning Area alone holds more than 15 billion barrels of undiscovered, technically recoverable oil and 76 trillion cubic feet of natural gas, which is second only to the Central Gulf of Mexico in terms of resource potential on the United States outer continental shelf (OCS). BOEM also estimates that the Beaufort Sea Planning Area holds more than 8 billion barrels of oil and 27 trillion cubic feet of natural gas. Offshore oil and gas exploration in the Arctic must proceed cautiously and in a way that is safe, responsible, and respectful of the unique environment and culture of the Arctic and its communities.

Prior to last summer, most exploration wells in Federal waters in the Beaufort and Chukchi Seas in the Alaskan Arctic were drilled during the late 1970s through the mid-1980s. Industry previously drilled a total of 30 exploratory wells in the Federal waters of the Beaufort Sea. Federal waters in the Chukchi Sea have a more limited history of exploration, with five exploration wells drilled between 1989 and 1991 – all resulting in the discovery of hydrocarbons.

In 2012, DOI allowed Shell to move forward cautiously with limited drilling activities in the Beaufort and Chukchi Seas. Shell constructed top-hole sections for one well each in the Chukchi and Beaufort Seas. Shell's well at the Burger prospect in the Chukchi Sea was the first new well spud in that area in over two decades. Shell's 2012 offshore drilling program was subject to strong Federal oversight, including a range of Arctic-specific conditions and standards, such as requiring deployment of subsea containment systems as a prerequisite to drilling into hydrocarbon-bearing zones, limitations on the Chukchi Sea drilling season to provide time for open-water emergency response, a blackout on drilling activity during the subsistence hunts in the Beaufort Sea, and surrounding vessels with pre-laid boom during fuel transfers. DOI's Bureau of Safety and Environmental Enforcement (BSEE) had inspectors onboard both of Shell's rigs around the clock throughout drilling operations, and the U.S. Coast Guard was a constant presence in the Arctic as well.

We learned a great deal from activities last summer – from both the successes and the problems Shell experienced – and it is important that we use all of the information that we learned from last summer in planning for the future.

Review of Shell's 2012 Operations

On January 8, 2013, Secretary Salazar directed me to lead a high-level assessment of Shell's 2012 offshore drilling program in the Beaufort and Chukchi Seas, including a review of the problems that Shell experienced last year with the certification of its containment vessel, the *Arctic Challenger*; the deployment test of its containment dome; and its two drilling rigs, the *Noble Discoverer* and the *Kulluk*.

The review team included BSEE Director Jim Watson, as well as senior leadership from BOEM and BSEE and a technical advisor from the U.S. Coast Guard. DOI retained the international consulting firm PricewaterhouseCoopers LLP (PwC) to provide expertise and support in reviewing issues related to safety and operational management systems. The review team received significant participation and contributions from the other Federal agencies involved in overseeing Shell's 2012 activities, including the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration (NOAA), the U.S. Coast Guard, the Environmental Protection Agency (EPA).

Shell cooperated with our review. Our review team conducted meetings and interviews with Shell and its contractors in Washington, D.C., Alaska, Washington State and Houston. The review team also met with Alaska State legislators and regulatory officials, the North Slope Borough, Alaska Native organizations, environmental groups, independent engineers and economists, marine contractors, and oil and gas companies.

On February 27, Shell announced its decision to pause exploration drilling activity for 2013 in both the Beaufort and Chukchi Seas to focus on preparation of equipment and plans before resuming its Arctic exploration program.

The Report's Findings

The review focused on Shell's safety management systems, its oversight of contracted services, and its ability to meet the strict standards in place for Arctic development. It found that Shell entered the 2012 drilling season without having finalized key components of its program, including its *Arctic Challenger* containment system, which put pressure on Shell's operations and schedule and limited Shell from drilling into oil-bearing zones last summer. Weaknesses in Shell's management of contractors on whom they relied for many critical aspects of its program – including development of its containment system, emission controls to comply with air permits, and maritime operations – led to many of the problems that the company experienced.

Accordingly, the Report makes a number of findings with respect to Shell's activities last year, and offers principles and recommendations for Shell, other operators, and government to support planning for future operations.

First, the report found that all phases of an Arctic offshore program – including drilling, maritime and emergency response operations – must be integrated and subject to strong operator management and oversight. Before Shell resumes its Arctic program, the Report recommends that the company should submit to the Department of the Interior a comprehensive, integrated plan describing every phase of its operation from preparations through demobilization. Any future Arctic exploration program proposed by Shell should be well planned and finalized in advance of the drilling season.

Operators must also maintain strong, direct management and oversight of their contractors, and have rigorous management systems tailored to the Arctic environment. This was an area where Shell fell short– contributing in large part to many of the problems Shell experienced last year, including its inability to deploy a functioning containment system, violation of the emission standards set in its air permits, and problems with both of its drilling rigs, including the *Kulluk* which was grounded near Kodiak Island during a towing operation in the Gulf of Alaska. Accordingly, the Report recommends that Shell complete a full third-party management system audit that will confirm that the company's management systems are appropriately tailored for Arctic operations.

Offshore operators choosing to work in the Arctic must also recognize the reality of the unique challenges posed by the Arctic environment like extreme weather and limited infrastructure. Companies must understand and plan for the variability and challenges of conditions in Alaska, and work with people who are knowledgeable about and experienced with these tough conditions.

The Report also stresses the critical need for coordination – across the Federal government and with State and local partners, as well as with companies, local communities and other stakeholders. Following the process initiated by the Alaska Interagency Working Group established by Presidential Executive Order 13580 for the coordination of permitting of domestic

energy projects in Alaska, the Federal government – including DOI, NOAA, the U.S. Coast Guard, EPA and others – engaged in a robust and unprecedented level of interagency coordination, information-sharing and cooperation related to the regulatory approval process and oversight of Shell’s 2012 program. This process led to the more efficient and effective reviews of permits and approvals, stronger oversight of Shell’s operations, better communication with local communities, greater awareness by Federal agencies of activities potentially impacting their areas of responsibility, and more efficient use of limited Federal resources. Public engagement by Federal agencies, including providing as much transparency and opportunity for public input as reasonably possible, is also important. This is an area of success from the 2012 experience that should be carried forward and improved upon in the future.

Developing a Region-Specific Model for Exploration in the Arctic Ocean

The Report also strongly recommends implementation of a region-specific model for offshore oil and gas exploration in the Alaskan Arctic. As Shell’s 2012 experience has made absolutely clear, the Arctic OCS presents unique challenges associated with environmental and weather conditions, geographical remoteness, social and cultural considerations, and the absence of fixed infrastructure to support oil and gas activity, including resources necessary to respond in the event of an emergency. Shell’s 2012 drilling program was subject to a number of Arctic-specific conditions and standards – including, among others, deployment of subsea containment systems as a prerequisite to drilling into hydrocarbon-bearing zones, limitations on the Chukchi Sea drilling season to provide time for open-water emergency response, a blackout on drilling activity during the subsistence hunts in the Beaufort Sea, and deploying pre-laid boom around vessels during fuel transfers. Shell also undertook additional measures, such as agreeing to transport out drilling muds and cuttings from its Beaufort Sea operation instead of discharging them into the ocean.

Government and industry should continue to evaluate the potential development of additional Arctic-specific standards in the areas of drilling and maritime safety and emergency response equipment and systems. The United States has a leading role among Arctic nations in establishing appropriately high standards for safety, environmental protection and emergency response governing offshore oil and gas exploration in the Arctic Ocean. It is incumbent, therefore, on the United States to lead the way in establishing an operating model and standards tailored specifically to the extreme, unpredictable and rapidly changing conditions that exist in the Arctic even during the open water season.

Finally, operators working in the Arctic should be encouraged to enter into resource sharing and mutual aid agreements to provide each other with access to operational and emergency response resources. The traditional operator-specific, “go it alone” model common with exploration programs in other regions is not appropriate for Arctic offshore operations. A cooperative, consortium-based model offers potential logistical and commercial efficiencies, as well as safety and environmental advantages through the reduction of cumulative operational risks and footprints (including air emissions). Following the *Deepwater Horizon* blowout and

spill and after DOI's establishment of clear guidance requiring subsea containment in support of all deepwater drilling operations, industry pulled together resources, equipment and expertise to establish consortia designed to provide offshore operators with access to critical safety and emergency response equipment, such as capping stacks and other equipment necessary to respond to a subsea blowout. Arguably the need for mutual assistance and resource sharing covering both operational and emergency response assets and resources may be even greater in the Arctic.

Conclusion

The information we collect from offshore exploration will be critical to longer-term planning for the Arctic OCS. For example, any information about geology and resource potential that may be developed from exploratory drilling or from geological and geophysical (G&G) exploration will be utilized in potential future lease sales in the Beaufort and Chukchi Sea Planning Areas. As offshore oil and gas exploration moves forward, information can also be utilized in planning for near and long-term associated infrastructure, spill response preparedness, and safety and environmental standards.