How much oil and gas is present off of Virginia's coast?

Although estimates have been made, no one really knows how much oil or gas may exist off of Virginia's coast. No oil or gas wells have ever been drilled in Virginia's offshore waters and existing geophysical information is limited in its ability to image the subsurface. The Bureau of Ocean Energy Management (BOEM), the federal agency responsible for managing offshore oil and gas resources, makes periodic estimates of resource potential based on the best available information. In assessing potentially available resources in the Atlantic Outer Continental Shelf (OCS), BOEM considered oil and gas fields discovered off the coast of eastern Canada and the east and west coasts of Africa, which have geology similar to the Mid- and South Atlantic.

BOEM and its predecessor, the Minerals Management Service (MMS), produced assessments of undiscovered Atlantic oil and gas resources in 1995, 2000, 2006, 2011, and 2014. The chart below illustrates how the resource estimates have changed with each new assessment. "Conventionally recoverable" means resources recoverable using existing technology and without hydraulic fracturing.

Undiscovered Conventionally Recoverable Resources 120 100 £ 80 Gas Gas (Tcf) Oil (Bbbl) 60 1.5 1 40 0.5 20 0 2000 1995 2006 2011 2014 Assessment Year

Chart illustrating how BOEM Atlantic oil and gas resource estimates have changed through time. Tcf =Trillion cubic feet; Bbbl = billion barrels. BOEM data.

The increase in estimated resources from 2000 to 2006 was the result of new discoveries off the coasts of Canada and Africa. The decrease from 2006 to 2011 was attributed to the incorporation of newly-reprocessed geophysical information as well as new information about discoveries that were considered as analogs for possible Mid- and South Atlantic oil and gas fields. The increase from 2011 to 2014 was based on new information indicating that these analogs were proving to be larger than previously thought.

Only one Virginia-specific resource estimate has been made. For OCS Lease Sale 220, originally scheduled for 2011 and subsequently cancelled, the MMS estimated that the area off of Virginia's coast may contain 130 million barrels of oil and 1.14 trillion cubic feet of natural gas. This estimate has not been updated.