

U.S. Scientific Teams Refine Estimates of Oil Flow from BP's Well Prior to Capping

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Washington, DC – Based on new pressure readings, data, and analysis, the U.S. scientific teams charged by National Incident Commander Thad Allen with determining the flow of oil from BP's leaking well have refined their estimates of the oil flow prior to the well being capped on July 15. Today's estimates, which draw heavily on recent oil reservoir modeling and on pressure readings of a closed system, are the most accurate to date and have an uncertainty of approximately 10 percent.

The scientific teams estimate that 53,000 barrels of oil per day were leaking from BP's well immediately preceding its closure via the capping stack.

Recent measurements and modeling also show that, as a result of depletion of the hydrocarbon reservoir, the daily flow rate decreased over the 87 days prior to the well's closure. Based on these measurements and modeling, the scientific teams estimate that, at the beginning of the spill, 62,000 barrels of oil per day were leaking from the well.

Overall, the scientific teams estimate that approximately 4.9 million barrels of oil have been released from the well. Not all of this oil and gas flowed into the ocean; containment activities conducted by BP under U.S. direction captured approximately 800,000 barrels of oil prior to the capping of the well.

The new estimates reflect the collaborative work and discussions of the National Incident Command's Flow Rate Technical Group (FRTG), led by United States Geological Survey (USGS) Director Marcia McNutt, and a team of Department of Energy (DOE) scientists and engineers, led by Energy Secretary Steven Chu.

At meetings on July 30 and July 31, the group of federal and independent scientists and engineers discussed new analyses and data points to provide the updated range, relying heavily on newly available pressure readings from the new containment cap. An estimation of how much the flow rate has decreased over time was enabled by observing the pressure at shut in and by initial pressure estimates for the well when it was first drilled.

"The revised estimates are part of this Administration's ongoing commitment to ensuring that we have the most accurate information possible," said Secretary Chu. "I am grateful to the scientists and engineers who have worked diligently to help us meet that goal."

"The new containment cap and the well integrity testing procedures have provided new data and new opportunities to firm up some of the unknowns and narrow in on a more refined estimate," said Dr. McNutt. "I appreciate the tireless work of scientists inside and outside of government

who are lending their expertise in service to their country and bringing the best science to bear on this effort.”

Today’s improved flow rate estimate brings together the work of several scientific teams and is based on a combination of analyses of high resolution videos taken by ROVs, measurements and modeling of reservoir and well properties, acoustic technologies, and measurements of oil collected by the oil production ship together with pressure measurements inside the containment cap.

The installation of a new containment cap and the subsequent well integrity testing procedure provided the opportunity to calculate the flow by measuring the pressure at the top of the well as the choke and kill valves were manipulated after the main containment valve was closed to trap hydrocarbons.

During the course of the BP oil spill, U.S. scientific teams have continually updated and refined their flow rate estimates based on the best available information and analysis. Government scientists will continue to analyze data and may in time be able to further refine this estimate.

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