BP OIL SPILL RESPONSE OPERATIONS DEEPWATER HORIZON OIL RIG GULF OF MEXICO VENICE, LOUISIANA

(PART 1 of 2)

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On April 20, 2010, the Transocean Deepwater Horizon off-shore oil rig exploded in the Gulf of Mexico. The failure of the rig resulted in the worst oil spill in U.S. history. The following photgraphs illustrate some of the efforts that were undertaken to assess the environmental and ecological impacts to the environmentally and ecologically sensitive shorelines along the Louisiana coast and efforts to control the multi-millon gallon oil spill.

As of June 2010, the volume of the crude oil spill is estimated at over 100 millions gallons.



1 – As a result of the failure of the rig, the drill pipe (riser) on the ocean floor separated from the Blowout Preventer (BOP) and oil starting to spill into the Gulf of Mexico



2- Chemical dispersants were used to break-up the heavy oil slick on the water. This aerial view of the dispersed oil covers an area of approximately 2 miles long and 4 miles wide.



3 – In an effort to contain the oil off-shore, fishing boats were used to deploy containment booms on the water.



4 – 2 "relief wells" are being drilled at the site of the submerged Deepwater Horizon rig. Upon completion of the relief well, drilling mud and cement will be pumped into the damaged riser of the BOP in an effort to create a "dynamic kill" of the well bore. The well bore extends an additional 8,500 feet below the ocean floor. (Photo courtesy MSNBC)



5 – As the oil slick continued to grow, a series of test burns were conducted in the Gulf of Mexico to reduce the volume of crude oil on the water.



6 – As the uncontrolled oil continued to migrate towards land, the Louisiana State and Federal Enforcement Agency declared the entire coast line an emergency area and access to the spill was restricted to essential personnel only.



7 – Crews continued to deploy additional containment booms for the large scale off-shore oil recovery operations in the vicinity of the rig failure.



8-Miles of containment booms (yellow) and sorbent booms (white) were placed around ecologically sensitive areas (marshlands, coastal estuaries etc.) to deflect the crude oil away from these areas



9 - Protection booms (red and yellow booms) were placed along the Chandeleur Islands (along the Louisiana coast) to prevent the oil from impacting these barrier islands. (Courtesy Reuters News Agency)



10 - Due to the heavy wind and wave conditions, the containment booms washed up on shore. Due to the shallow waters, air boats were used to recover the beached booms.



11 - The containment booms in other areas along the coast also washed up on shore and they had to be placed back in the water several times.



12 –Heavy crude oil deposits (brown tar balls on the sand) started washing up along the Louisiana coast 3 weeks after the spill began. The oil had traveled over 50 miles from the damaged oil rig to this location near Venice, Louisiana. The tar balls represent the *LEADING EDGE* of the oil slick.



13– SCAT teams (Shoreline Clean-Up Advisory Teams) were established along the coast lines to assess the environmental impacts from the oil washing up on shore. At South Pass (near the mouth of the Mississippi River) heavy crude oil deposits were discovered under the sand.



14 – A close inspection of the sand sample confirmed heavy crude oil was mixed in with the sand. The crude oil along the shoreline was very "sticky" and quickly attached to anything it contacts.



15 – The leading edge of the oil slick was observed washing up on several shorelines from under the water. (dispersed oil does not float)



16 – Samples of the dispersed oil were collected from under the water. The oil sank to the bottom of the sample bottle. NOTE: Oil will float on water unless it has been impacted with chemical dispersants. Dispersed oil will sink below the surface of the water, as can be seen in the sample bottle.



17 - Samples of oil contaminated vegetation were also collected to determine the extent of the environmental damage to the marshes and the wetlands.



18 –Visual observations confirmed the near-shore vegetation was impacted by the crude oil spill.



19 –Crude oil entering Barataria Bay, Louisiana. Booms (white) were placed along the shoreline to protect the wildlife. Barataria Bay has been designated an estuary of national significance by the Environmental Protection Agency National Estuary Program. The bay is characterized by swamp forests and marshes which provide a nursery and breeding ground for migratory birds and a variety of recreationally and commercial important species, including alligators, finfish, shellfish, songbirds, ducks and geese.



20-Louisiana Wildlife and Fisheries collecting oiled birds along the coast for transport to bird cleaning facilities.



21 - Several species of birds along the Louisiana coast were heavily contaminated with oil and had to be treated at several bird cleaning facilities.



22 - Birds along the inter-coastal waterways are expected to be impacted with heavy crude oil during the hurricane season. NOTE: hurricane season starts in June.



23 - Alligators are present along the Gulf coast and could present a danger to the shoreline cleanup crews.



- 24 The shoreline personnel moved very quickly when an alligator approached their location.
- NOTE: this photo was taken by Dec Doran from inside his vehicle. The alligator was about 15 feet away from the vehicle when this photo was taken.

END OF PART 1 OF 1