| UNITED STATES DEPARTMENT OF THE INTERIOR                                                                                                                                                                        |                                                                                                                                                                          |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| MINERALS MANAGEN                                                                                                                                                                                                |                                                                                                                                                                          |  |  |  |  |
| GULF OF MEXIC                                                                                                                                                                                                   |                                                                                                                                                                          |  |  |  |  |
| ACCIDENT INVESTIGATION REPORT                                                                                                                                                                                   |                                                                                                                                                                          |  |  |  |  |
|                                                                                                                                                                                                                 |                                                                                                                                                                          |  |  |  |  |
| 1. OCCURRED<br>DATE: <b>15-AUG-2006</b> TIME: <b>0800</b> HOURS                                                                                                                                                 | STRUCTURAL DAMAGE<br>CRANE<br>OTHER LIFTING DEVICE                                                                                                                       |  |  |  |  |
| 2. OPERATOR: BP Exploration & Production Inc.<br>REPRESENTATIVE: Anne-Renee Laplante<br>TELEPHONE: (281) 366-5155<br>CONTRACTOR: Transocean Offshore<br>REPRESENTATIVE: Bill Brown<br>TELEPHONE: (713) 232-8245 | DAMAGED/DISABLED SAFETY SYS.<br>INCIDENT >\$25K<br>H2S/15MIN./20PPM<br>REQUIRED MUSTER<br>SHUTDOWN FROM GAS RELEASE<br>OTHER <b>Pollution</b>                            |  |  |  |  |
| 3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR<br>ON SITE AT TIME OF INCIDENT:                                                                                                                                | 6. OPERATION:                                                                                                                                                            |  |  |  |  |
| 4. LEASE: G09866<br>AREA: MC LATITUDE:<br>BLOCK: 776 LONGITUDE:                                                                                                                                                 | PRODUCTION<br>DRILLING<br>WORKOVER<br>X COMPLETION<br>HELICOPTER<br>MOTOR VESSEL<br>PIPELINE SEGMENT NO.                                                                 |  |  |  |  |
| 5. PLATFORM:<br>RIG NAME: T.O. DISCOVERER ENTERPRISE                                                                                                                                                            | OTHER                                                                                                                                                                    |  |  |  |  |
| <pre>6. ACTIVITY: EXPLORATION(POE) DEVELOPMENT/PRODUCTION (DOCD/POD) 7. TYPE:  HISTORIC INJURY REQUIRED EVACUATION LTA (1-3 days) LTA (&gt;3 days RW/JT (1-3 days) RW/JT (&gt;3 days)</pre>                     | 8. CAUSE:<br>EQUIPMENT FAILURE<br>HUMAN ERROR<br>EXTERNAL DAMAGE<br>SLIP/TRIP/FALL<br>WEATHER RELATED<br>LEAK<br>UPSET H20 TREATING<br>OVERBOARD DRILLING FLUID<br>OTHER |  |  |  |  |
| Other Injury<br>FATALITY                                                                                                                                                                                        | 9. WATER DEPTH: 5636 FT.                                                                                                                                                 |  |  |  |  |
| X POLLUTION<br>FIRE                                                                                                                                                                                             | 10. DISTANCE FROM SHORE: 60 MI.                                                                                                                                          |  |  |  |  |
| LWC HISTORIC BLOWOUT<br>UNDERGROUND<br>SURFACE                                                                                                                                                                  | 11. WIND DIRECTION: SE<br>SPEED: 10 M.P.H.                                                                                                                               |  |  |  |  |
| COLLISION HISTORIC >\$25K < <= \$25K                                                                                                                                                                            | <ul> <li>12. CURRENT DIRECTION: E<br/>SPEED: 2 M.P.H.</li> <li>13. SEA STATE: 2 FT.</li> </ul>                                                                           |  |  |  |  |
|                                                                                                                                                                                                                 |                                                                                                                                                                          |  |  |  |  |

EV2010R

## 17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

Early morning on August 15, 2005, the RC1 reserve pit was filled with water and the water was subsequently pumped overboard through the transfer (overboard) line from which a blank had been removed and a static sheen test was completed. The task was completed and a Permit to Work was completed. The blank on the overboard line was not replaced.

After tour change, the rig floor was in the process of performing a negative test on the well. Pit volumes where attained and walk through was held. The plan was to have Dowell pump water down the drill string taking returns up the backside with calcium bromide, over the shakers and into pit P4. Displacement was started and returns where monitored in P4. The assistant driller was monitoring P4 and Dowell to make sure we where getting a bbl in and a bbl out. A total of 120 bbls had been pumped with no problems. The derrick hand then called and stated he was going to start filtering fluid out of P4 into P2 and P5. The assistant driller agreed and the process was started.

The derrickman checked his line up in the mix pump room and the pit room and then lined up a centrifugal pump on P4 to supply fluid to the filter presses. He lined up his discharge from the filter press back to the transfer line which was routed to P2 and P5 active pits and started filtering fluid. With the blank out and valves open in process pump room fluid was being pumped to P2, P5 and overboard.

When the mud engineers strapped the mud pits and calculated their volumes at 2359, August 15, 2006, they could not account for 294 bbls of calcium bromide.

#### 18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

The probable cause was human error. The blank was not returned to the transfer/overboard line after finishing the previous job of dumping water from the reserve tank and the gate valve at the end of the overboard line was also left open.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

1) The procedure for filtering brine, for lining up lines, and monitoring pits were not followed.

2) The procedure that requires removal of the blank on the transfer (overboard) line did not include the replacement of the blank at the completion of the procedure.

MMS - FORM 2010

\*

PAGE: 2 OF 4 05-APR-2007

EV2010R

294 bbl. Calcium bromide

Lost overboard.

ESTIMATED AMOUNT (TOTAL): \$146,000

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

# No recommendations to MMS.

The New Orleans District concurs with the operator's recommendations to prevent recurrence.

 A meeting was held with the appropriate members of the drill crews to discuss lessons learned.
 Mud engineers will more closely monitor and inform the derrickman during operations.

3) Update procedure that require removal of the blank also require replacement of the blank at the completion on the procedure.

4) Reinforce procedure for filtering brine for lining up lines and monitoring pits as required by the TSTP.

### 23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

30 CFR250.300(a) States in part...the lessee shall take meausres to prevent unauthorized discharge of pollutants into the offshore waters.

E-100 Is the lessee preventing pollution of offshore waters?

25. DATE OF ONSITE INVESTIGATION:

26. ONSITE TEAM MEMBERS:

29. ACCIDENT INVESTIGATION PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Troy Trosclar

APPROVED

DATE: 22-SEP-2006

# **POLLUTION ATTACHMENT**

| 1.  | VOLUME:                                  | GAL                                                                     | BBL                               |  |
|-----|------------------------------------------|-------------------------------------------------------------------------|-----------------------------------|--|
|     |                                          | YARDS LONG X                                                            | YARDS WIDE                        |  |
|     | APPEARANC                                | Ξ:                                                                      |                                   |  |
| 2.  | TYPE OF HYDROCARBO                       | ON RELEASED:                                                            | OIL                               |  |
|     |                                          |                                                                         | DIESEL                            |  |
|     |                                          |                                                                         | CONDENSATE                        |  |
|     |                                          |                                                                         | HYDRAULIC                         |  |
|     |                                          |                                                                         | NATURAL GAS                       |  |
|     |                                          | x                                                                       | OTHER 294 bbls of Calcium Bromide |  |
| 3.  | SOURCE OF HYDROCAP                       | RBON RELEASED: OT                                                       | verboard line from pits.          |  |
| 4.  | WERE SAMPLES TAKEN                       | 1? <b>NO</b>                                                            |                                   |  |
| 5.  | WAS CLEANUP EQUIPN                       | MENT ACTIVATED? 1                                                       | NO                                |  |
|     | IF SO, TYPE:                             | SKIMMER<br>CONTAINMENT BOOM<br>ABSORPTION EQUIP<br>DISPERSANTS<br>OTHER |                                   |  |
| 6.  | ESTIMATED RECOVERY                       | 7: <b>0</b> GAI                                                         | L BBL                             |  |
| 7.  | RESPONSE TIME:                           | HOURS                                                                   |                                   |  |
| 8.  | IS THE POLLUTION I<br>ENVIRONMENTALLY SE |                                                                         |                                   |  |
| 9.  | HAS REGION OIL SPI                       | ILL TASK FORCE BEI                                                      | EN NOTIFIED? NO                   |  |
| 10. | CONTACTED SHORE:                         | NO IF YES, W                                                            | WHERE:                            |  |
| 11. | WERE ANY LIVE ANIM                       | ALS OBSERVED NEAD                                                       | r: <b>NO</b>                      |  |
| 12. | WERE ANY OILED OR                        | DEAD ANIMALS OBS                                                        | ERVED NEAR SPILL: NO              |  |