UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO REGION
ACCIDENT INVESTIGATION REPORT

1. OCCURRED
DATE: 08-MAR-2005  TIME: 2015 HOURS
2. OPERATOR: Hunt Oil Company
3. LEASE: G23933

4. PLATFORM:
   RIG NAME DIAMOND OCEAN CHAMPION

5. ACTIVITY: [X] EXPLORATION (POE) [ ] DEVELOPMENT/PRODUCTION (DOCD/POD)

6. TYPE: [X] BLOWOUT [ ] COLLISION [ ] INJURY NO. 0 [ ] FATALITY NO. 0
   [ ] POLLUTION [ ] OTHER

7. OPERATION: [X] DRILLING [X] PRODUCTION [ ] WORKOVER [ ] COMPLETION
   [ ] MOTOR VESSEL [ ] PIPELINE SEGMENT NO. [ ] OTHER

8. CAUSE: [X] EQUIPMENT FAILURE [ ] HUMAN ERROR [ ] EXTERNAL DAMAGE
   [ ] SLIP/TRIP/FALL [ ] WEATHER RELATED [ ] LEAK
   [ ] UPSET H2O TREATING [ ] OVERBOARD DRILLING FLUID [ ] OTHER

9. WATER DEPTH: 159 FT.
10. DISTANCE FROM SHORE: 50 MI.
11. WIND DIRECTION: ENE SPEED: 17 M.P.H.
12. CURRENT DIRECTION: W SPEED: 1 M.P.H.
13. SEA STATE: 6 FT.
14. TYPE: FIRE EXPLOSION [ ] BLOWOUT [ ] COLLISION [ ] INJURY NO. 0 [ ] FATALITY NO. 0
    [ ] POLLUTION [ ] OTHER

16. OPERATOR REPRESENTATIVE/SUPERVISOR ON SITE AT TIME OF INCIDENT:
    Sonny Lane
    CITY: Dallas STATE: TX
    TELEPHONE: (214) 978-8620

    CONTRACTOR: Diamond Offshore Drilling, Inc.

    CONTRACTOR REPRESENTATIVE/SUPERVISOR ON SITE AT TIME OF INCIDENT:
    Carl Knippers
    CITY: Houston STATE: TX
    TELEPHONE: (281) 492-5300
17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED

On March 8, 2005 after squeezing the 9-5/8" X 13-3/8" annulus with cement and pumping barrels of sea water, the crew started displacing the cement with ppg mud at 4 barrels per minute (bpm). At 1930 hours, with barrels into the barrel displacement with psi on the annulus, one of the wear bushing/casing hanger lock down dogs blew out of the port/forward quadrant of the 16" wellhead, giving an uncontrolled release of mud, water, and cement through a 1 1/4" threaded port to a distance of 50-75' out away from the rig, below the main hull and into the water. The crew closed the 16" casing valve. An attempt was made to slow the flow coming out of the port by opening the choke and kill lines through the choke manifold and taking returns back in the trip tank. Full flow was obtained out of the choke and kill lines, but was not enough relief to observe the point of discharge. An attempt was made to pull the casing hanger up against the landing profile to help slow the flow but there were no results. The rig was evacuated and the crew were transported to a nearby rig.

On March 9, 2005, well control personnel and Hunt representatives assessed the flow by crew boat. They found the flow was 100% salt water.

On March 10, 2005, personnel landed on rig by helicopter. They replaced the casing head valve handle. They installed a pressure gauge on the casing head and it read 1 psi. The flow was still 100% salt water.

On March 11, 2005 personnel boarded the rig. The kill hose was disconnected and the HCR valve was opened to vent pressure from the flow. After five minutes, the flow bridged. A nipple was welded into the hole in the wellhead. A 2" valve was installed on the nipple and closed. The well was secured at 1245 hours. The choke and kill lines were full of cement from the personnel initially opening the lines to try to slow the flow.

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

The probable cause of the accident was equipment failure. Hunt believes the lock down dog in the wellhead flange blew off during an annular squeeze. They are not sure if the lock down dog blew off or became unscrewed because of sand erosion on the flange while the annulus was flowing.

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

Annular flow after cementing caused the initial pressure situation.

20. LIST THE ADDITIONAL INFORMATION:

Hunt has proposed the following items to prevent this from happening again. Wellhead serviceman should inspect position of lock down dogs before running casing. Pressure test the wellhead before running casing. Utilize lower fluid loss cement slurry to avoid flow after cementing. Hold nominal pressure on annulus while waiting on cement
21. PROPERTY DAMAGED: wellhead, choke and kill hose, manifold lines and valves

NATURE OF DAMAGE: all these items were plugged with cured cement

ESTIMATED AMOUNT (TOTAL): $308,500

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

Due to the specific nature of this incident, the Houma District has no recommendations to the Regional Office.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE

n/a

25. DATE OF ONSITE INVESTIGATION

26. ONSITE TEAM MEMBERS: Amy Gresham /

29. ACCIDENT INVESTIGATION PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR: Michael J. Saucier

APPROVED

DATE: 04-MAY-2005
### BLOWOUT ATTACHMENT

1. **WELL NAME:** 001  
   **WELL NO.:** 177164032800  
   **LEASE:** G23933

2. **OPERATION:**  
   - [X] DRILLING  
   - [ ] COMPLETION  
   - [ ] WORKOVER  
   - [ ] PRODUCTION

3. **SIMULTANEOUS OPERATIONS IN PROGRESS?** NO

4. **FLUID TYPE:** WATER BASE MUD  
   **WEIGHT:** PPG

5. **BOP STACK CONFIGURATION:**  
   - Size: 16.75 IN  
   - Annular, Pipe Ram, Blind Ram, Spool, Pipe ram  
   **PRESSURE RATING:** 5000 PSI

6. **BOP STACK - LAST TEST DATE PRIOR TO INCIDENT:** 27-FEB-2005  
   **PRESSURE:** 5000 PSI

7. **LAST CASING STRING SET:**  
   - FT SIZE: IN

8. **SIZE OF DRILLING/WORKOVER STRING IN HOLE:** IN

9. **KICK SIZE:** BBLS

10. **FLUID KILL WEIGHT:** PPG

11. **INITIAL S.I.C.P.** PSI

12. **S.I.D.P./W.S.P.:** PSI

13. **PRIOR HOLE PROBLEMS?** NO

14. **WELL CONTROL EQUIPMENT INITIALLY ACTIVATED:**  
   - [ ] ANNUAL BO  
   - [ ] SCSSV  
   - [ ] PIPE  
   - [ ] SSV  
   - [ ] BLIND  
   - [X] OTHER: none, leak occurred below BOP

15. **EVACUATION:** NO

16. **DIVERTER SYSTEM VALVE SIZE:**  
   **LINE SIZE:**  
   - [X] SINGLE SPOOL  
   - [ ] DUAL SPOOL

17. **WAS WELL DIVERTED?** NO

18. **BOTTOM HOLE ASSEMBLY:**

19. **DRILLING DEPTH:**  
   - TVD  
   - MD

20. **DATE LAST FORMATION INTEGRITY TEST:** 23-FEB-2005

21. **SSSV TYPE:**

22. **TREE:**  
   - [ ] ON  
   - [X] OFF

23. **SURFACE SAFETY EQUIPMENT IN SERVICE?** NO

24. **WELL TD:**  
   - TVD  
   - MD

25. **OPEN PERF?** NO

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**EV2010R**  
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