

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

ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: 21-OCT-2007 TIME: 0915 HOURS

2. OPERATOR: Anadarko Petroleum Corporation  
REPRESENTATIVE: Reier, Gaylene  
TELEPHONE: (832) 636-3096  
CONTRACTOR: Diamond Offshore Drilling, Inc.  
REPRESENTATIVE: Summers, Alan  
TELEPHONE: (281) 647-2168

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR  
ON SITE AT TIME OF INCIDENT:

4. LEASE: G24179  
AREA: GC LATITUDE: 27.22331583  
BLOCK: 726 LONGITUDE: -90.8363025

5. PLATFORM:  
RIG NAME: DIAMOND OCEAN VALIANT

6. ACTIVITY:  EXPLORATION(POE)  
 DEVELOPMENT/PRODUCTION  
(DOCD/POD)

7. TYPE:  
 HISTORIC INJURY  
 REQUIRED EVACUATION  
 LTA (1-3 days)  
 LTA (>3 days)  
 RW/JT (1-3 days)  
 RW/JT (>3 days)  
 Other Injury

FATALITY  
 POLLUTION  
 FIRE  
 EXPLOSION

LWC  HISTORIC BLOWOUT  
 UNDERGROUND  
 SURFACE  
 DEVERTER  
 SURFACE EQUIPMENT FAILURE OR PROCEDURES

COLLISION  HISTORIC  >\$25K  <=\$25K

STRUCTURAL DAMAGE  
 CRANE  
 OTHER LIFTING DEVICE  
 DAMAGED/DISABLED SAFETY SYS.  
 INCIDENT >\$25K Riser term./adaptor  
 H2S/15MIN./20PPM joints  
 REQUIRED MUSTER  
 SHUTDOWN FROM GAS RELEASE  
 OTHER

6. OPERATION:

PRODUCTION  
 DRILLING  
 WORKOVER  
 COMPLETION  
 HELICOPTER  
 MOTOR VESSEL  
 PIPELINE SEGMENT NO.  
 OTHER

8. CAUSE:

EQUIPMENT FAILURE  
 HUMAN ERROR  
 EXTERNAL DAMAGE  
 SLIP/TRIP/FALL  
 WEATHER RELATED  
 LEAK  
 UPSET H2O TREATING  
 OVERBOARD DRILLING FLUID  
 OTHER \_\_\_\_\_

9. WATER DEPTH: 4674 FT.

10. DISTANCE FROM SHORE: 150 MI.

11. WIND DIRECTION: E  
SPEED: 14 M.P.H.

12. CURRENT DIRECTION: NW  
SPEED: 0 M.P.H.

13. SEA STATE: 4 FT.

17. INVESTIGATION FINDINGS:

At approximately 0915 hours on 21 October 2007, the Diamond Ocean Valiant was conducting drilling operations when the riser began losing mud. The Remotely Operated Vehicle (ROV) immediately observed mud being discharged from a split in the side of the riser termination joint. Within approximately 1-1/2 hours, 1929 barrels of Synthetic Base Mud (SBM) was discharged into GOM waters. The synthetic portion of the mud was 55%, therefore giving a total of 1061 barrels of synthetic fluid released.

After securing the well with a storm packer, the riser was pulled to surface for examination. A nearly two foot long split was found in the termination joint along with heavy keyseating damage.

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

The cause of the incident was insufficient riser tension. This allowed for keyseating to occur which led to the rupture of the termination joint.

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

\*The correct tension to be pulled on the riser was not done prior to changing the fluid from seawater to 15 ppg mud within the riser as prescribed by API RP 16Q. In addition to insufficient tension being pulled on the riser, the configuration of the riser was incorrect. Even if the proper tension had been pulled on the riser with the configuration that the rig was utilizing, it still would have been insufficient because the riser was actually heavier than the rig was aware.

\*Non-Rotating Drill Pipe Protectors (NRDPP) were not being used at the time of the incident. Keyseating is wear caused by the whipping of the drill string against the riser wall while the drill string is rotating.

20. LIST THE ADDITIONAL INFORMATION:

The termination joint is located at the bottom of the riser above where it connects to the BOP stack. The termination joint had been in service for approximately two years and all inspection reports prior to this operation were acceptable. In addition to the termination joint, the riser adaptor joint also sustained damage.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

The damaged portions of the riser were the termination joint and riser adaptor joint.

The termination joint sustained keyseating and rupture. The riser adaptor joint sustained keyseating.

ESTIMATED AMOUNT (TOTAL): **\$180,000**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

**The Houma District has no recommendations for the Regional Office of Safety Management.**

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

**An Incident of Non-Compliance (E-100) for pollution will be issued since the cause was human error.**

25. DATE OF ONSITE INVESTIGATION:

**24-OCT-2007**

26. ONSITE TEAM MEMBERS:

**Ben Coco / Jerry Freeman / Kelly Bouzigard /**

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

**Bryan A. Domangue**

APPROVED

DATE: **01-JUL-2008**



