

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**

REPRESENTATIVE: **Penny Plumlee**

TELEPHONE: **(214) 978-8447**

3. LEASE: **G23933**

AREA: **ST** LATITUDE: **28.34938602**

BLOCK: **242** LONGITUDE: **-90.66869893**

4. PLATFORM:

RIG NAME **DIAMOND OCEAN CHAMPION**

5. ACTIVITY:  EXPLORATION(POE)

DEVELOPMENT/PRODUCTION  
(DOCD/POD)

6. TYPE:  FIRE

EXPLOSION

BLOWOUT

COLLISION

INJURY NO. 0

FATALITY NO. 0

POLLUTION

OTHER \_\_\_\_\_

7. OPERATION:  PRODUCTION

DRILLING

WORKOVER

COMPLETION

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: **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.

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 4 barrels of sea water, the crew starting displacing the cement with 10 ppg mud at 4 barrels per minute (bpm). At 1930 hours, with 10 barrels into the 10 barrel displacement with 10 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:

NATURE OF DAMAGE:

wellhead, choke and kill hose, manifold  
lines and valves

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:  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 PRESS 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:  
 ANNULAR BO  SCSSV  
 PIPE  SSV  
 BLIND  OTHER none, leak occurred below BOP  
 BLIND SHEA
15. EVACUATION: NO
- 
16. DIVERTER SYSTEM VALVE SIZE:  
LINE SIZE:  
 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:  
DATE LAST TESTED:
22. TREE: ON  OFF
23. SURFACE SAFETY EQUIPMENT IN SERVICE? NO
24. WELL TD: TVD MD
25. OPEN PERF? NO