

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

For Public Release

1. OCCURRED

DATE: 13-AUG-2015 TIME: 0030 HOURS

2. OPERATOR: Statoil Gulf of Mexico LLC

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: Transocean Offshore

REPRESENTATIVE:

TELEPHONE:

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

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

6. OPERATION:

4. LEASE: G34634

AREA: WR LATITUDE:

BLOCK: 160 LONGITUDE:

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

5. PLATFORM:

RIG NAME: T.O. DISCOVERER AMERICAS

6. ACTIVITY:

- EXPLORATION(POE)
- DEVELOPMENT/PRODUCTION (DOCD/POD)

8. CAUSE:

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

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

9. WATER DEPTH: 5868 FT.

10. DISTANCE FROM SHORE: 158 MI.

11. WIND DIRECTION: SW
SPEED: 2 M.P.H.

12. CURRENT DIRECTION: SW
SPEED: 5 M.P.H.

13. SEA STATE: 1 FT.

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

On August 13, 2015, while performing drilling operations on Statoil's #002 well, an incident occurred onboard the Transocean Discoverer Americas in which the Backup Wrench Die for the Modular Derrick Drilling Machine (MDDM) fell from the housing of the Top Drive to the rig floor. The die weighed 2.8 pounds and fell approximately 136 feet before striking the drill floor.

At the time of the incident, the crew had just finished pumping seawater through the drill string to clean any debris out the pipe that may have been left behind from the previous operations. Once complete, the drill crew held a meeting to discuss the upcoming operations and review the Written Risk Assessment to address the possible hazards associated with the job. The drill crew then began preparing to start disconnecting stands of drill pipe to be placed back into the derrick.

The pipe slips were set in order to hold the pipe in place while breaking the connections. Once the pipe was secure, the Driller engaged the backup wrench in the top drive and proceeded to attempt to break the drill pipe connection loose from the MDDM by initiating the 'Breakout Sequence' of the system. At this time, the Driller failed to notice a message that had been displayed on the top of the control panel stating "Shaft Rotation Blocked by Air Flex Brake On". After four failed attempts at breaking the connection with no success, the Driller began to troubleshoot the issue and found that he had failed to disengage the Air Flex Brake. Once the Driller realized his mistake, the Air Flex Brake was disengaged, clearing the alert, and allowing the Backup Wrench to operate as intended.

At approximately 00:39 hours, the Driller engaged the Backup Wrench for a second time and was able to initiate the Back Out Sequence. This time the system responded as expected and the drill pipe was observed breaking out of the MDDM after 1.5 turns. Once the drill pipe connection was completely separated from the MDDM, the Driller proceeded with picking up the MDDM. As the Driller attempted to hoist the MDDM, again the system failed to respond. It was at this time that the Driller realized that he hadn't unlatched the Backup Wrench from the drill string. As the Driller pressed the command to disengage the Backup Wrench, the display screen started to "Flash". The flashing of the display screen should have served as a warning to the Driller that the command for the Backup Wrench to open was either not accepted or wasn't completed. Although the Toolpusher was the supervisor available to the Driller on the rig floor, the Driller never asked for any assistance with operating the equipment. As the Driller continued to hoist up on the MDDM in an attempt to clear the tool joint, one of the dies for the Backup Wrench, weighing 2.8 pounds, fell from the MDDM to the drill floor.

No personnel were injured as a result of the incident due to everyone on the drill floor avoiding the "Red Zone", an area that is off limits to the crew while lifting operations or being performed. All work on the drill floor was stopped so that the MDDM could be inspected and an investigation could be performed to identify the cause of the incident.

The investigation following the incident showed that the Immediate Cause of the incident was the failure to ensure the Backup Wrench was disengaged before continuing to lift the MDDM free of the drill stand. With the Backup Wrench still engaged, the force of the MDDM being hoisted eventually overcame the capabilities of the Backup Wrench dies, causing them to fail and in turn fall to the rig floor. The investigation showed that this was the Driller's first hitch onboard the Discoverer Americas and that all of his previous experiences were on rigs that didn't utilize the same type of equipment. The investigation also showed that Transocean has no formal training program in place for the MDDM equipment and that the supervisory personnel onboard the Transocean Discoverer Americas failed to verify the Driller's proficiency before allowing him to operate the equipment.

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

(1) Failure to recognize that the Backup Wrench for the MDDM had not been unlatched from the stand of drill pipe before continuing to lift the MDDM.

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

(1) Lack of Training: Transocean currently has no specific training for employees on the operations of the MDDM system and software.

(2) Lack of Knowledge: This was the Driller's first hitch onboard the Discoverer Americas. Driller had no prior experience with this exact type of equipment.

(3) Lack of Supervision: Failure of supervision onboard the rig to ensure that the employee was familiar with the equipment on the rig and a failure to properly train or give guidance to the new employee.

(4) Lack of attention: Failure of the Driller to notice warning signs, like the flashing screen, or ask for assistance when having problems during operations.

20. LIST THE ADDITIONAL INFORMATION:

N/A

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Die Housing for the Backup Wrench of the MDDM. Bent Die Housing.

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The Houma District has no recommendations for the Regional Office at this time.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-110: On August 13, 2015, while performing drilling operations on Statoil's #002 well, an incident occurred onboard the Transocean Discoverer Americas in which the Backup Wrench Die for the Modular Derrick Drilling Machine (MDDM) fell to the rig floor. The failure of the equipment was due to excessive force being placed on the die from attempting to hoist the MDDM while the Backup Wrench was still engaged. After attempting to disengage the Backup Wrench, the system gave the Driller a 'Flashing Light'. This light should have served as a warning to the Driller that the function was not accepted by the system or had failed to complete. The failure to recognize and mitigate the issue before continuing to lift the MDDM led to the

Backup Wrench Die coming dislodged from its housing and falling approximately 136 feet to the drill floor.

For Public Release

This INC was issued on 10/29/2015. Houma District has requested that Statoil provide information regarding how this type of incident will be prevented in the future.

25. DATE OF ONSITE INVESTIGATION:

18-SEP-2015

26. ONSITE TEAM MEMBERS:

James Richard /

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Bryan Domangue

APPROVED

DATE: **04-NOV-2015**