

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: **09-JUN-2015** TIME: **1015** HOURS

2. OPERATOR: **BP Exploration & Production Inc.**

REPRESENTATIVE:

TELEPHONE: -

CONTRACTOR: **Seadrill Limited-**

REPRESENTATIVE: -

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- 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: **G15607**

AREA: **GC** LATITUDE:

BLOCK: **743** LONGITUDE: -

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER **Prep for Workover (Stump Test) -**

5. PLATFORM:

RIG NAME: **SEADRILL WEST AURIGA -**

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 1 -
- LTA (1-3 days)
- LTA (>3 days) 1
- 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: **6824** FT.

10. DISTANCE FROM SHORE: **111** MI.

11. WIND DIRECTION: -
SPEED: M.P.H.

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

13. SEA STATE: FT.

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

On June 9, 2015, while performing Stump Testing on the Blow Out Preventers (BOPs), a Subsea Engineer was struck in the face with high pressure BOP fluid while attempting to replace the O-rings on an Sub Plate Mounted (SPM) valve on the BOP stack.

During the time of the incident, Seadrill America's drillship, the West Auriga, was located in GC.743, performing drilling operations on BP's DC111 well. The subsea crew on board the vessel was in the process of pressure testing and repairing BOP Stack #2 when the incident occurred.

On the morning of June 9th, the subsea crew held a meeting to discuss the work plan for the day. The Subsea Engineer (the IP) and the Subsea Technician were tasked with functioning the Shear Rams from both the Blue and Yellow pods. Once the Shear Rams had been functioned, the crew discussed the need to replace the O-rings for the three SPM valves on the Lower Marine Riser Package (LMRP) with the type of O-rings that are specified in the owner's manual. Although a Risk Assessment had been performed by the crew before the work began for the day, the task of replacing the O-rings on the SPM valves was not addressed in the work scope. Later, when the task was added to the plan, it was considered by the crew to be routine and the risk involved was thought to be low.

Statements taken from both the Subsea Technician and the IP confirm that a discussion was held between the two men ensuring that all pressures had been bled off and all gauges were reading 0 psi when checked. Photographs taken after the incident confirmed that the gauges were all reading 0 psi, although known pressure remained in the line. The two men proceeded down to the BOP and successfully changed out the O-rings located on the non-shearable side of the LMRP with no incident. Once finished there, the men headed over to the SPM valve located on the shearable side of the BOP.

At approximately 10:00am the IP put on his safety harness and climbed up a ladder to obtain access to the SPM valve. The SPM valve posed a risk in that it was in a poor location. The placement of the valve put whoever was attempting to work on it in a confined area with little room to move, forcing them into the line of fire. Once the IP got into position, he began to loosen the first of four bolts located on the SPM valve. The IP was in the process of removing the second bolt on the Shearable SPM valve when high pressure BOP fluid was released from the opening of the valve flange. The pressurized fluid struck the IP directly in the face, protected only by his safety glasses.

The IP, unable to see, was helped off of the BOP stack by the Subsea Technician and brought to the medic on board to be examined. Due to the extent of his injuries, a medivac was called to transport the IP to an inland facility for further evaluation and treatment. The work site was secured and an investigation into the incident began.

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

-The Subsea Engineer proceeded to work on the SPM valve without first ensuring that all pressure had been removed from the lines.

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

-The pressure gauge for the Shearable SPM valve line was stuck at 0 psi, giving a

false reading when checked by crew members.

- A leaking Pressure Relief Valve (PRV) in the system allowed pressure to build in the line leading to the SPM valve.

- Although the crew members bled the lines of pressure, the isolation valves were placed back into the closed position afterwards, preventing a vent path, and allowing pressure to build in the lines due to the leaking PRV.

- Failure of the crew members to preform a proper risk assessment after adding the task of changing out the SPM valve O-rings was added to the plan. The job was thought to be "routine".

-Placement of the SPM Valve puts employees in an awkward position, bad body placement, when attempting to perform work on the valve.

20. LIST THE ADDITIONAL INFORMATION:

It is unknown at this time how long it will be before the IP is able to return to work but he is expected to make a full recovery.

21. PROPERTY DAMAGED:

N/A

NATURE OF DAMAGE:

N/A

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

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

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

N/A

25. DATE OF ONSITE INVESTIGATION:

16-JUL-2015

26. ONSITE TEAM MEMBERS:

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

Kimbarly Ward / Cedric Bernard /
James Richard /

30. DISTRICT SUPERVISOR:
Bryan Domangue -

For Public Release

APPROVED
DATE: 28-AUG-2015