

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: 02-NOV-2014 TIME: 1535 HOURS

2. OPERATOR: Anadarko Petroleum Corporation

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: Subsea 7 -

REPRESENTATIVE:

TELEPHONE:

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

4. LEASE: G24194

AREA: GC LATITUDE:

BLOCK: 859 LONGITUDE: -

5. PLATFORM:

RIG NAME: ROWAN RESOLUTE

6. ACTIVITY:

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

7. TYPE:

HISTORIC INJURY -

REQUIRED EVACUATION 1 -
 LTA (1-3 days)
 LTA (>3 days)
 RW/JT (1-3 days)
 RW/JT (>3 days)
 Other Injury 1 Medical -

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
 H2S/15MIN./20PPM
 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: 5400 FT.

10. DISTANCE FROM SHORE: 125 MI.

11. WIND DIRECTION: NNE -
SPEED: 20 M.P.H.

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

13. SEA STATE: 5 FT.

On November 2, 2014, while inspecting a multiplex (MUX) control line on the riser, an employee onboard the Rowan Resolute had his right index and middle fingertips severed off after being caught between the handrail and riser.

The crew onboard the rig at the time of the incident had just finished the initial Blowout Preventer (BOP) testing on surface and was preparing to run the stack to the wellhead. Although the weather conditions at the time of the incident were not ideal, they were considered to be safe enough for the crew to proceed with running the stack to the seafloor. The operations were first discussed during the pre-tour safety meeting where the crew members coming on tour were briefed on the status of the job. Later, on the drill floor, the crew reviewed and signed off on the Risk Assessment Procedure (RAP), which discussed the procedural steps and safety hazards involved with running the riser. Although a Risk Safety Assessment (RSA) was performed before the job began, operations and hazards specifically associated with connecting the MUX lines were not addressed. Furthermore, 'Section B' of the RSA was left blank. This section calls for the crew to do another risk assessment at the actual job site. Failure to both complete the RSA and to identify the hazards associated with the weather conditions before proceeding with operations increased the chances of an accident occurring.

As the job commenced, the Driller was in communication with the Electrical Technicians (ETs), located under the rig floor, via a handheld radio. As each joint of riser was run, the ETs were tasked with unspooling the MUX lines so that they could be ran parallel with the riser. At the end of each joint, the Assistant Subsea Engineer and a Floorhand would skid out towards the riser, via the BOP trolley, so that the MUX lines could be clamped and secured into the designated grooves of the riser. Once this step was complete, the crew would continue with the next joint.

While running their 43rd joint of riser, the sea states caused the riser to sway and the MUX lines to come unclamped. The crew tried to get the lines back into place, but as the riser swayed from port to starboard, one of the MUX lines became pinched between the riser and the I-beam of the BOP trolley. After the Assistant Subsea Engineer noticed the damage to the control line that had been pinched, he called for the Senior Subsea Engineer over the radio and asked for him to come down to inspect the line before continuing with the operation. A few minutes later, the Senior Subsea Engineer arrived to the BOP trolley to assess the situation. As he kneeled onto the grating to look down and observe the damaged control line, he placed his right hand on the starboard side handrail. The riser swayed once again due to the rocking of the ship and caught the Injured Person's (IP's) right index and middle fingertips between the handrail and the riser.

The IP was escorted to the Medic's office by the Assistant Subsea Engineer and the Floorhand following the accident. The decision was made to send the IP to an inland physician for further evaluation. The IP was transported to Terrebonne General Hospital in Houma, Louisiana. The tips of both the index and middle fingers on the IP's right hand were lost, but the employee is expected to return to full duty.

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

- **Poor Body Placement:** Employee failed to recognize that he was putting himself into harm's way by placing his hand in between the handrail and the joint of riser.
- **Poor Weather Conditions:** The sea state at the time of the incident was causing the riser to sway back and forth, allowing the riser to come into contact with the handrail and I-beam of the BOP Trolley.

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

- **Failure to Follow Company Procedure:** Crew members failed to complete 'Section B' of the 'Risk Assessment Procedure'. This section requires employees to perform a 'Job Risk Assessment' at the site of the work.
- **The Risk Assessment** that was performed prior to the start of the job failed to cover the task of clamping and securing the MUX lines on the riser or any of the associated hazards.

20. LIST THE ADDITIONAL INFORMATION:

N/A

21. PROPERTY DAMAGED: -

N/A -

NATURE OF DAMAGE:

N/A

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The Houma District has no recommendations for BSEE Region at this time.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **NO**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

26. ONSITE TEAM MEMBERS: -

29. ACCIDENT INVESTIGATION -
PANEL FORMED: - **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

APPROVED

DATE: 12-DEC-2014