

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-JUN-2019 TIME: 1430 HOURS

2. OPERATOR: LLOG Exploration Offshore, L.L.C

REPRESENTATIVE:
TELEPHONE:

CONTRACTOR: Seadrill Limited
REPRESENTATIVE:
TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING
- 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: 8. OPERATION:

4. LEASE: G33178
AREA: MC
BLOCK: 816

5. RIG NAME: SEADRILL WEST CAPRICORN

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
 - DIVERTER
 - SURFACE EQUIPMENT FAILURE OR PROCEDURES

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

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

9. CAUSE:

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

- 10. WATER DEPTH: 5638 FT.
- 11. DISTANCE FROM SHORE: 95 MI.
- 12. WIND DIRECTION:
SPEED: 6 M.P.H.
- 13. CURRENT DIRECTION:
SPEED: 3 M.P.H.
- 14. SEA STATE: 2 FT.
- 15. PICTURES TAKEN:
- 16. STATEMENT TAKEN:

17. INVESTIGATION FINDINGS:

For Public Release

On June 2, 2019, Seadrill's West Capricorn Semi-Submersible Drilling Rig encountered a well control event while drilling the Taggart #3 Well located in Mississippi Cannon Block 816 operated by LLOG Exploration Offshore LLC (LLOG). The drill crew observed flow with the subsea Blow-Out Preventer (BOP) Stack upper annular preventer closed. The team closed the diverter bag and diverted approximately four barrels (bbl) of Synthetic Oil-Based Mud (SBM) from the marine riser into the Gulf of Mexico (GOM). No one was injured.

On June 2, 2019 from 0000 hours to 1200 hours, the drill crew proceeded to drill the 17.5" hole section (8,866' MD to 9,762' MD) with 9.8 PPG mud weight while pumping 50 bbl sweeps every other stand. Based on International Association of Drilling Contractors (IADC) reports, the drill crew experienced a max gas of 289 units during this time. The IADC report indicate the last casing installed was the 20" casing with the casing shoe depth at 8,690'MD/ TVD.

On June 2, 2019 from 1200 hours to 1430 hours, a 17.5" diameter hole was drilled from 9762' MD to 9982' MD. At approximately 9,920' MD, the mud weight was increased to 9.9 PPG.

On June 2, 2019 at approximately 14:30 hours, the drill crew observed an increase in return flow with increased gas at the surface (max gas=1386 units). The driller shut down the mud pumps and rotary. Next, the team closed the upper annular on the subsea BOP Stack. The crew observed flow with the BOP upper annular closed. The crew closed the diverter bag to divert flow overboard. The general alarm sounded and personnel mustered at stations.

On June 2, 2019 at 15:05 hours, LLOG reported to the National Response Center (NRC #1247605), BSEE, and USCG that an estimate of 32 bbls of SBM was diverted to the GOM waters with no sheen observed.

After stabilizing the operation, the riser took 39 bbls to fill. The Offshore Installation Manager (OIM) and onsite LLOG representative estimated the following: (1) 25 of the 39 bbls spilled on the rig floor and main deck (2) 10 of the 39 bbls spilled in the rotary pan (3) 4 of the 39 barrels spilled in the GOM waters from the diverter and over the main deck into the moon pool.

After the incident, the ROV (Remote Operated Vehicle) inspected the marine riser and BOP stack. The ROV video inspection team found no problems with the riser or the BOP stack and did not observe any mud leaking anywhere. There were no injuries to personnel. The total shut-in time was 16.5 hours.

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

Mud weight was inadequate to balance pore pressure in newly drilled hole section.

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

Gas cut fluid was accompanied by a small pit gain, which expanded as it was circulated up the hole.

20. LIST THE ADDITIONAL INFORMATION: None

21. PROPERTY DAMAGED: **None**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE New Orleans District makes no recommendations to the Office of Incident Investigation.

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

21-JUN-2019

26. INVESTIGATION TEAM MEMBERS:

Frank Musacchia /

28. ACCIDENT CLASSIFICATION:

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

OCS REPORT:

30. DISTRICT SUPERVISOR:

David Trocquet

APPROVED **29-AUG-2019**

DATE:

27. OPERATOR REPORT ON FILE: