

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: 01-APR-2019 TIME: 0055 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: G32301

AREA: MC LATITUDE:
BLOCK: 199 LONGITUDE:

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

5. PLATFORM:

RIG NAME: SEADRILL WEST NEPTUNE

6. ACTIVITY:

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

9. 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

- 10. WATER DEPTH: 2528 FT.
- 11. DISTANCE FROM SHORE: 24 MI.
- 12. WIND DIRECTION: NNE
SPEED: 20 M.P.H.
- 13. CURRENT DIRECTION: NNW
SPEED: 1 M.P.H.
- 14. SEA STATE: 0 FT.
- 15. PICTURES TAKEN:
- 16. STATEMENT TAKEN:

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

17. INVESTIGATION FINDINGS:

At approximately 0055 hrs on 1 April 2019, LLOG Exploration Offshore LLC had a spill incident (61 bbls of Synthetic Oil-Based Mud [SBM]) on board Seadrill West Neptune Drillship while conducting drilling operations at Mississippi Canyon Block 199, OCS-G 32301. Sixty-one barrels of Synthetic Oil-Based Mud (SBM) spilled in the Gulf of Mexico (GOM) waters due to a misalignment of the trip tank valves (open/close) positions. At the time of the incident, the 61 bbls had a 62% synthetic make-up according to the mud report. Therefore, the total pollution of the incident was 37.8 bbls.

At approximately 0055 hrs, the drill crew was in the process of pulling out of the hole with an 8.5" milling assembly on 5" drill pipe. The driller informed the Assistant Driller of the need for more drilling mud in order to compensate for the rest of the drill pipe to be pulled out of the hole. The Assistant Driller notified the Derrickman via radio to transfer mud from Trip Tank #1 to Trip Tank #2. The Derrickman opened two pneumatic valves that are tied into the Trip Tank dump line. The Derrickman opened the valves in order to let the tanks equalize their fluid levels. While monitoring the fluid levels via the digital Driller's panel, the Driller noticed Trip Tank #1's fluid level was dropping as Trip Tank #2's was filling (as it should). After roughly two minutes, the Driller observed Trip Tank #1 dropped substantially more volume than Trip Tank #2 was filling. The Driller immediately contacted the Derrickman and instructed him to suspend transfer operations. The Derrickman was already in the process of closing the pneumatic valves before the Driller attempted to contact him to suspend transfer operations.

The drilling crew immediately suspended operations and conducted an investigation into where the drilling fluid may have been going. The Derrickman then went to the lower processing room to inspect the line he was using for the equalization of the fluid levels in the Trip Tanks. Upon further investigation it was found that the master dump valve for the Trip Tanks was in the locked and open position, allowing 61 bbls of SBM flow into the overboard discharge line and into the GOM. This valve is a barrier in preventing drilling fluids from discharging fluids into the GOM when in the closed position.

On 4/2/19, BSEE inspectors arrived on location to conduct an investigation of the incident. Once on board the facility, all documentation relating to the incident was collected (JSA's, procedures, photos, statements, etc.). After discussion with the Captain of the ship, the transfer was not considered normal operations for transferring mud from pit to pit. The Derrickman is in charge of verifying proper valve alignment before all fluid transfers according to fluid transfer procedures. The Captain also informed the inspectors that the pit cleaning crews had possibly locked open the master dump valve and never returned it to its normally closed and locked position.

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

The crew did not follow proper procedures in transferring mud.

While performing the incorrect procedure to transfer mud, the crew misunderstood the positions of the valves plumbed to the Trip Tank. The pit cleaning crew may have locked open the master dump valve for the Trip Tank during cleaning operations, and never put back into its normally closed and locked position.

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

Not verifying the master dump valve for the trip tanks locked in the closed position.
Not following the procedures for mud pit transfer operations.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

61 barrels of SBM

Discharged overboard

ESTIMATED AMOUNT (TOTAL):

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: **YES**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

E100 - 30 CFR 250.300(a)

On 4/1/19 at 0055 hrs, the operator discharged 61 barrels of 10.8 ppg synthetic based mud into OCS waters. The drilling crew's immediate investigation led them to find an opened trip tank dump valve. The opened valve allowed for discharge of the SBM in the GOM.

25. DATE OF ONSITE INVESTIGATION:

28. ACCIDENT CLASSIFICATION:

02-APR-2019

26. INVESTIGATION TEAM MEMBERS:

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

OCS REPORT:

30. DISTRICT SUPERVISOR:

APPROVED

DATE:

17-SEP-2019

27. OPERATOR REPORT ON FILE: