

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: 20-DEC-2020 TIME: 0308 HOURS

2. OPERATOR: BHP Billiton Petroleum (GOM) Inc.

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: TRANSOCEAN OIL INC.

REPRESENTATIVE: TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING Elevator
- 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: G16764

AREA: GC LATITUDE:

BLOCK: 609 LONGITUDE:

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

5. PLATFORM:

RIG NAME: T.O. DEEPWATER INVICTUS

6. ACTIVITY:

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

9. CAUSE:

7. TYPE:

INJURIES:

HISTORIC INJURY

OPERATOR CONTRACTOR

REQUIRED EVACUATION

LTA (1-3 days)

LTA (>3 days)

RW/JT (1-3 days)

RW/JT (>3 days)

FATALITY

Other Injury

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

POLLUTION

FIRE

EXPLOSION

LWC HISTORIC BLOWOUT

UNDERGROUND

SURFACE

DEVERTER

SURFACE EQUIPMENT FAILURE OR PROCEDURES

10. WATER DEPTH: 4293 FT.

11. DISTANCE FROM SHORE: 116 MI.

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

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

14. SEA STATE: FT.

15. PICTURES TAKEN:

16. STATEMENT TAKEN:

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

On December 20, 2020, an incident occurred on the Transocean Deepwater Invictus drillship while under contract for BHP Billiton (BHP). The Invictus was in Green Canyon Block 609 OCS-G-16764 at the time of the incident. A single 4,725-pound joint of 14-inch casing fell across the rig floor after the casing elevators came unlatched when the joint was lowered to the rig floor to trouble shoot the casing slips. There were no injuries reported.

On December 19, 2020, the 14-inch casing handling equipment was offloaded from the supply vessel to the drillship in preparation to pick up and run 14-inch casing in the wellbore. The casing handling equipment was placed on the pipe rack and function tested with no issues. Prior to rigging up the casing handling equipment on the rig floor, the task of picking up 14-inch casing was discussed at the Control of Work meeting (COW). A pre-tour meeting was held with the drill crew, the Driller and Offshore Installation Manager (OIM) highlighted the requirement to follow the Job by Design (JBD) procedure and that dual activity was going to be taking place on the rig floor. At approximately 22:00 hours, the casing equipment was transferred to the auxiliary side of the rig floor, installed, and function tested with no problems reported. On December 20, 2020, a Toolbox talk was initiated with the drill crew and the casing crew discussing the JBD procedure, Red Zone management, communication procedures for red zone entry, and the Safe Step Back areas. All documents were reviewed and signed by the crews, and work commenced by loading the first joint of 14" casing on the Tubular Feeding Machine (TFM). The TFM transitioned to the rig floor where the first joint was picked up with clamp type elevators (CTE) which were connected to the Modular Derrick Drilling Machine (MDDM). Before raising the casing joint, the service loop became tangled in the MDDM track and had to be adjusted before proceeding forward. Once corrected, the Driller brought the single casing joint to a vertical position and lowered it thru the Split Bushing Spider (SBS) into the auxiliary rotary sock. The casing crew attempted to set the casing slips several times but were unsuccessful. A "Time Out" was called so the casing crew and Driller could discuss the situation at hand. It was agreed between the Driller and casing crew to hoist the single joint of casing out of the SBS and retract the MDDM, then slack off the block to set the casing pin end vertically on the rig floor for the casing crew to inspect the dies and troubleshoot why the slips were not holding. As the Driller set the pin end down on the rig floor, the CTE opened and released the 42 foot long joint of casing, allowing it to fall across the rig floor and strike pipe in the derrick and the auxiliary Lower Guide Arm (LGA) on the Pipe Racking System (PRS). Unknown to the Driller, one of the casing crew members made an unauthorized entry into the Red Zone as the joint of casing was set down, but he was in the safe step back area when the joint landed toward the main rotary area. The job was stopped immediately, the area was secured, and Transocean and BHP management were notified.

Due to the COVID - 19 pandemic, the Bureau of Safety and Environmental Enforcement (BSEE) investigation team was unable to conduct an initial onsite investigation for this incident. However, all documentation, pictures, videos, and witness statements were furnished by the Transocean and BHP at the team's request. The investigation team reviewed all the documentation and established that on December 19, 2020 the casing equipment had been offloaded on the pipe deck area and was function tested. It was noted in the casing company's Jobsite Safety System Checklist that all associated casing equipment was accepted and ready for use. Also, a control of work meeting was held to discuss picking up the 14" casing following the pre tour meeting with personnel highlighting the need to observe the JBD and address the Red Zone Policy during the casing operation. At 18:00 hours, the drill crew and casing crew came on tour and by 21:00 hours the casing equipment was positioned and assembled on the auxiliary rotary table side of the drill floor. All the casing handling equipment which included the clamp type elevators, split bushing spider, and the rack back console was again function tested with no issues noted. On December 20, 2020 at approximately 01:30 hours, a Toolbox talk was completed with both the drill crew and

casing crew present to review the JBD, Red Zone management, and established communication procedures for entry into the Red Zone and Safe Step Back area. After, several 14" casing joints were loaded on the tubular feeding machine that was positioned within reach of the clamp type elevators. The first joint of 14" casing, 42-foot-long weighing approximately 112.5 pounds per foot was clamped and ready to be hoisted by the MDDM. All operations ceased due to the CTE service loop being tangled in the MDDM track. The service loop was repositioned, and operations commenced by raising the 14" casing joint to a vertical position and set in the SBS. The Driller lowered the single casing joint thru the SBS down into the rotary sock. The casing crew attempted multiple times to engage the slips, but the dies would not grip and hold the casing. A Time Out was called so the Driller and casing crew could discuss how to move forward. It was decided to raise the casing joint out of the SBS slips, retract the MDDM, and lower the casing joint down vertically on its pin end on the rig floor so the casing crew could troubleshoot the SBS slips. The Driller proceeded forward with the discussed plan and lowered the casing joint and set it on the rig floor vertically. As the pin made contact with the rig floor, the hook load went from 6,000 pounds to 0 pounds and suddenly the CTE released the joint of casing allowing it to fall violently across the rig floor. The dropped joint of casing impacted other pipe that was racked back in the derrick and the LGA before coming to rest horizontally across the rig floor. Also, the Driller was unaware that an unauthorized casing crew member had entered the Red Zone just as the casing pin touched the rig floor, but the casing crew member recognized the casing was falling and escaped through an access route unharmed.

This was the first time that a Rack Back Control (RBC) panel was rigged up and used to pick up casing on the Invictus. The RBC Panel Operator had completed all his training under close supervision, but this was his first time operating this equipment on his own. While the CTE is loaded with a joint of pipe, the weight of the pipe prevents the slips from opening, even if the "slips up" command is given. However, if the "slips up" command is given and the pipe is set down, the loss of weight will allow the slips to open and the pipe will fall. The RBC panel operator functioned the CTE to the "slips up" position during the troubleshooting of the SBS, which allowed the CTE to open and immediately release the joint of casing when the Driller set the pin down on the rig floor, thus releasing the weight from the CTE. The proposed action to avoid this in the future is to add a Driller controlled foot pedal (or equivalent) that allows the CTE slips to be opened only when both the Driller depresses the foot pedal and the RBC panel operator functions to "slips up" mode not allowing either to override the other. Transocean's Restricted Access Zone, the Red Zone, was followed to a point until there was a lack of attention of the casing crew and breached the restricted access area without seeking the Driller's authorization. Transocean and the casing company will review the placement of the Rack Back Console system and see if there is a more suitable place outside the restricted Red Zone for safe operation.

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

The RBC operator functioned the CTE to "slips up" prematurely, which allowed the CTE to open and release the joint of casing when the casing was set on the rig floor.

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

None

20. LIST THE ADDITIONAL INFORMATION:

N/A

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

N/A

N/A

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

BSEE Houma District has no recommendations for the Office of Incident Investigation at this time.

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

None

25. DATE OF ONSITE INVESTIGATION:

28. ACCIDENT CLASSIFICATION:

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

26. INVESTIGATION TEAM MEMBERS:

Paul Reeves /

OCS REPORT:

27. OPERATOR REPORT ON FILE:

30. DISTRICT SUPERVISOR: **Amy
Pellegrin**

APPROVED

DATE:

01-JUN-2021