

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: **23-OCT-2013** TIME: **1900** HOURS

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

2. OPERATOR: **W & T Offshore, Inc.**
REPRESENTATIVE:
TELEPHONE:
CONTRACTOR:
REPRESENTATIVE:
TELEPHONE:

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

6. OPERATION:

4. LEASE: **G01144**
AREA: **VR** LATITUDE:
BLOCK: **226** LONGITUDE:

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER **P&A**

5. PLATFORM: **A**
RIG NAME:

6. ACTIVITY: EXPLORATION (POE)
 DEVELOPMENT/PRODUCTION
(DOCD/POD)

8. CAUSE:

7. TYPE:

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

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

- FATALITY
- POLLUTION
- FIRE
- EXPLOSION

- LWC HISTORIC BLOWOUT
- UNDERGROUND
 - SURFACE
 - DEVERTER
 - SURFACE EQUIPMENT FAILURE OR PROCEDURES

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

9. WATER DEPTH: **122** FT.

10. DISTANCE FROM SHORE: **60** MI.

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

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

13. SEA STATE: FT.

17. INVESTIGATION FINDINGS: -

Freedom Well Services (FWS) was performing plug and abandonment (PA) operations on the A-5 well for W & T Offshore on the VR-226A platform. On October 23, 2013, the 7" casing was being pulled from the well utilizing both casing jacks and the platform crane. Earlier that morning, the casing was speared and pulled up into the casing jacks, pinned, and the casing head was removed. The first five joints of casing were pulled from the well using the casing jacks, torch cut into approximately 40' joints, and laid down on the platform deck utilizing the platform crane. According to the FWS morning reports obtained on the facility, the next two joints of casing were pulled from the well using the platform crane instead of the casing jacks. The load applied to the crane was at an approximately 37' 6" radius, 65 degree boom angle and allowed for a rated capacity on the main hoist of 29,865 lbs. static lift and 19,710 lbs. dynamic lift as per the load chart in the crane cab. The weight of the remaining 7" casing was approximately 9,100 lbs. When the second joint of casing emerged from the well and cleared the top of the work basket on the casing jacks, the dead man pad eye for the main hoist line ripped out of the right cord of the crane boom to which it had been welded. The main hoist block, weight indicator and the 1.5" two-part sling in use fell from the boom and was left suspended from the top of the casing to which it was attached. There were no injuries reported and all personnel were accounted for immediately following the incident.

The failed dead man pad eye for the main hoist line was installed on August 10, 2007 and was located closer to the boom tip of the crane than the pad eye originally installed by the manufacturer. Service tickets indicate that the pad eye was cut, installed and NDT (Non-Destructive Testing) tested before the crane was used after the pad eye was installed, however, no record of an approved installation procedure, welding procedure, engineered drawing of the pad eye or NDT procedure from the original crane manufacturer or an engineer was found for the repair or modification of the boom or additional dead man point. The originally installed pad eye was welded to three different members of the crane boom structure. The failed pad eye was welded directly to the bottom center wall of the square tubing which makes up the bottom right cord of the boom.

The initial cut on the 7" casing was made on October 2, 2013 and a second cut was made on October 3, 2013. The second cut was made at 550 RKB (Rig Kelly Bushing) (345ft. below the mud line). An initial attempt was made shortly after the casing was cut to pull it from the well utilizing only the platform crane. According to morning reports obtained from the facility, the crane pulled up to 27,000 lbs. on the casing string and was unable to pull it free. The approximate weight of the 550' of casing was 14,300 lbs. The static load limit was utilized from the load chart rather than the dynamic limit. At 27,000 lbs. of pull, the dynamic limit of 19,710 lbs. was exceeded by 7,290 lbs. when initially attempting to free the casing from the well.

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

The installation of the failed dead man pad eye for the main hoist line was performed without an installation procedure, welding procedure, engineered drawing of the pad eye, NDT procedure or any type of approval or guidance from the original manufacturer of the crane, crane service company, or engineer. The incorrect installation of the pad eye led to it being pulled from the crane boom cord.

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

1. Lack of facility personnel as well as management to ensure that the crane was maintained, or repaired as per requirements of API RP 2D. -
2. Insufficient annual inspections to indicate that the additional dead man pad eye

for the main hoist line was installed incorrectly.

3. Use of static load limits provided on the load chart rather than dynamic limits when attempting to pull casing from a well that is in a "stuck" condition. If the pipe were to suddenly come free this would cause severe shock loading on the crane.

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 Lakes Charles District office has no recommendations.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

I-153 - Are repairs or replacements of critical components made promptly in accordance with API RP 2D, paragraph 4.3.3? No record of an approved installation procedure, welding procedure, engineered drawing of the pad eye or NDT procedure from the original crane manufacturer or an engineer was found for the repair or modification of the boom or additional dead man point.

I-102 - Are proper crane operating practices for attaching and moving the load being utilized in accordance with API RP 2D, paragraphs 3.2.1, 3.2.2 and 3.2.3 and API RP 2C, paragraph 7.5.4.3., Appendix B? According to morning reports obtained from the facility, the crane pulled up to 27,000 lbs. on the casing string and was unable to pull it free. Appendix B states "Before starting to lift, the following conditions shall be verified: The load is free to be lifted."

25. DATE OF ONSITE INVESTIGATION:

25-OCT-2013

26. ONSITE TEAM MEMBERS:

Mitchell Klumpp / Carl Matte /

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Larry Williamson

APPROVED
DATE:

06-FEB-2014