

ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: **09-SEP-2023** TIME: **1600** HOURS

2. OPERATOR: **Apache Corporation**

REPRESENTATIVE:
TELEPHONE:
CONTRACTOR:
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:

4. LEASE: **G02600**

AREA: **SM** LATITUDE:
BLOCK: **281** LONGITUDE:

5. PLATFORM: **C**

RIG NAME: *** LIFT BOAT**

6. ACTIVITY:

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

7. TYPE:

INJURIES:

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

- POLLUTION
- FIRE
- EXPLOSION

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

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

8. OPERATION:

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- DECOMMISSIONING
- PA PIPELINE SITE CLEARANCE
- TA PLATFORM
- 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: **30** FT.

11. DISTANCE FROM SHORE: **26** 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:

Incident Summary:

On 9 September 2023, Apache Corporation (Apache) contractors were conducting abandonment operations of all wells located on the South Marsh Island (SM) Block 281C platform. Apache contractors were pulling 11.875-inch casing from Well C-28 when the contractors heard a loud bang. All well operations were stopped, and the well abandonment contractors evacuated to the Lift Boat New Orleans. The Apache Company Representative (Co-Rep) and the Safety Representative went onto the SM-281C Platform and discovered the 13.375-inch casing on Well C-11 had dropped approximately 3 feet, the valve for the 13.375-inch casing was completely sheared off of the well and the valve for the 9.625-inch production casing was partially sheared off leaking gas from the well.

Sequence of Events:

On 9 September 2023, Apache contract workers were conducting well abandonment operations on Well C-28. Using a torch, contractors cut the bolts off the Well C-28 production tree and removed the tree from the wellhead. Contractors cut two holes with a torch on top of the 11.875-inch casing and placed a shackle in one of the holes. The Crane Operator then lowered the crane boom, and the contract crew attached the crane sling to the shackle. At 1630 hours, while the Crane Operator was lifting the Well C-28 11.875-inch casing through the upper deck, the contract crew felt the production platform shake and heard a loud noise coming from the well bay area. The contract crew evacuated from the production platform onto the Lift Boat New Orleans.

The Apache Co-Rep and Safety Representative proceeded to the platform to investigate the well bay area and heard gas leaking from the casing valve for the Well C-11 9.625-inch production casing. They observed that Well C-11 well had dropped approximately 3 feet down at a casing collar located approximately 30 feet above the water line. The metal grating and decking around the Well C-11 was damaged when the well fell. The A-Annulus casing valve for the 9.625-inch production casing was partially sheared off from the wellhead and gas lift pressure was released into the atmosphere. It was also discovered that the B-Annulus casing valve attached to the wellhead for the 13.375-inch surface casing had been fully sheared off. The Co-Rep called a Stop Work Authority with all personnel on the lift boat and contacted B&B Wellhead Services (B&B) to have a technician mobilized to the SM-281C location. Contractors rigged up casing beams and casing jack on the top deck over Well C-11. The Well C-11 tree was pulled up 3 inches with the casing jack and the damaged grating inside the barricade under the wing valves was removed. The B&B Technician installed a 5,000 pounds per square inch (psi) ball valve on the 9.625-inch production casing. Then a 500-foot cement balance plug was set from 11,100 feet to 10,600 feet consisting of 189 cubic feet of cement securing the well. On 29 September 2023, Apache completed permanent well abandonment operations on Well C-11.

BSEE Investigation:

On 11 and 12 September 2023, the BSEE Lafayette District Office conducted an onsite Incident Follow-up Investigation for the SM-281C Well C-11 incident. BSEE met with the Apache Company Representatives and contractors and gathered all available incident-related documents including Apache Daily Service Reports, Alliance Offshore Job Safety Analysis (JSA), B&B Oilfield Services, LLC JSA, Apache Hot Work Permits, Witness Statements, Helix Well Control Plans, and the Apache Well C-11 Casing Diagnostics Report. BSEE inspected the incident scene and conducted photographic documentation. BSEE reviewed the last monthly casing report for Well C-11 conducted on 21 August 2023, that stated the A-Annulus current pressure was 0 psi. Also, based on the 21 August 2023 casing report, when the 9.625-inch production casing valve had partially sheared, 704 psi of gas lift pressure was released into the atmosphere from the 9.625-inch production casing. Apache reported that there were no injuries or pollution related to this incident. BSEE monitored Well C-11 activities by reviewing the Well Activity Reports and the End of Operations Report.

The BSEE Incident Investigation Team concurs with Apache's investigation findings that concluded that this incident was a result of equipment failure due to the loss of the 26-inch conductor casing which exposed the 13.375-inch surface casing to the severe corrosion resulting in the 13.375-inch surface casing collapsing approximately 3 feet down onto itself. The release of hydrocarbon gas from the A-Annulus 9.625-inch production casing was the result of the partial shearing of the valve on the 9.625-inch production casing.

Apache failed to notify BSEE as per 30CFR 250.188 and NTL 2019-NO5 of an incident that resulted in structural damage to the platform, safety systems, and causing an uncontrolled release of hydrocarbons into the atmosphere.

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

Equipment Failure:

- Degradation of the well due to corrosion. The 26-inch conductor casing was severely corroded, and complete metal loss was observed. The complete loss of the 26-inch conductor casing exposed the 13.375-inch surface casing allowing active corrosion to begin due to exposure to oxygen and moisture.
- Years of corrosion caused enough wall loss and metal integrity to part the 13.375-inch surface casing at the collar allowing it to collapse on itself.

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

Work Environment: Trapped gas lift pressure was released into the atmosphere when the valve on the 9.625-inch production casing partially sheared off from the wellhead.

20. LIST THE ADDITIONAL INFORMATION:

List of Appendices:

A.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

The wellhead and the platform structure around Well C-11 was damaged during this incident.

The grating and metal plating around the Well C-11 wellhead was structurally damaged and the wellhead safety systems were damaged.

ESTIMATED AMOUNT (TOTAL): \$8,365

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

The BSEE Lafayette District makes no recommendations to the Office of Incident Investigations regarding this incident.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **YES**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

A G-132 Incident of Noncompliance (INC) was issued on 15 September 2023, to document that Apache Corporation failed to comply with the regulatory requirement to immediately notify the BSEE Lafayette District when an incident occurred that resulted in structural damage to the platform, safety systems, and causing an uncontrolled release of hydrocarbons into the atmosphere. Apache Corporation failed to immediately notify the BSEE Lafayette District Manager of an incident that occurred on 9 September 2023, when the SM-281 Well C-11 fell approximately 3-4 feet damaging the casing valves, platform decking, and the release of uncontrolled hydrocarbons into the atmosphere. Apache Corporation shall submit letter of explanation to the BSEE Lafayette District Manager concerning the above incident, along with plans to eliminate to prevent all future incidents of this nature. Apache Corporation shall notify the BSEE District Office immediately for any incidents that involve wellhead falling, structural damage and the release of uncontrolled hydrocarbons into the atmosphere.

25. DATE OF ONSITE INVESTIGATION:

12-SEP-2023

26. Investigation Team Members/Panel Members:

**Roy Kuhn (Onsite) / Jack Angelle
(Onsite and Report Author) / Troy
Naquin (Onsite and Report Author) /**

27. OPERATOR REPORT ON FILE:

28. ACCIDENT CLASSIFICATION:

29. ACCIDENT INVESTIGATION PANEL FORMED:
No

OCS REPORT:

30. DISTRICT SUPERVISOR:

Mark Malbrue

APPROVED

DATE: **12-DEC-2023**