

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF AMERICA REGION

For Public Release

ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: **24-NOV-2024** TIME: **1710** HOURS

2. OPERATOR: **Anadarko Petroleum 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: **G06894**

AREA: **VK** LATITUDE:

BLOCK: **915** LONGITUDE:

5. PLATFORM: **A (Marlin)**

RIG NAME:

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

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

☐ POLLUTION

☐ FIRE

☐ EXPLOSION

LWC ☐ HISTORIC BLOWOUT

☐ UNDERGROUND

☐ SURFACE

☐ DEVERTER

☐ SURFACE EQUIPMENT FAILURE OR PROCEDURES

COLLISION

☐ HISTORIC

☐ >\$25K

☐ <=\$25K

8. OPERATION:

- ☒ PRODUCTION ☐ TEMP ABAND
☐ DRILLING ☐ PERM ABAND
☐ WORKOVER ☐ DECOM PIPELINE
☐ COMPLETION ☐ DECOM FACILITY
☐ HELICOPTER ☐ SITE CLEARANCE
☐ 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: **3236** FT.

11. DISTANCE FROM SHORE: **64** 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 24 November 2024, an incident occurred at Viosca Knoll (VK) 915, Platform A. VK-915A (Marlin). (Marlin) is a Tension Leg Platform owned by Anadarko Petroleum Corporation and operated by Occidental Petroleum. During the incident, a gas release took place due to a 3/4 inch pipe nipple cracking and breaking. The release allowed gas to escape from the Compressor #1 Suction Scrubber (MBF P630A-1). The event caused a total platform shut in and platform muster. There were no injuries or significant equipment damages associated with this event.

SEQUENCE OF EVENTS:

On 24 November 2024, at approximately 1710 hours, the VK-915A platform control room received a gas alarm on the Compressor #1. An Occidental Petroleum Control Room Operator (CRO) immediately traveled to the Compressor #1 and witnessed the nipple on the sight glass level bridle for the number one suction scrubber releasing gas. After seeing the gas release, the CRO called the control room. The compressor #1 and the platform were then shut in by the Emergency Shutdown System (ESD). Due to the gas alarm sounding, there was a platform muster performed to account for all personnel. The compressor and number one scrubber were then isolated, and the pressure was bled down. The facility and compressor #1 were shut down for approximately thirty minutes while the broken pipe nipple was removed and replaced with a new pipe nipple. After the nipple was replaced, the facility was able to return to production.

BSEE INVESTIGATIONS:

On 25 November 2024 at 1508 hours, Anadarko submitted an incident report to the Bureau of Safety and Environmental Enforcement (BSEE) notifying them that an incident occurred at VK-915A. The report provided a description of the incident that had occurred on 24 November 2024 which consisted of a gas release resulting in a complete platform shut in and muster. The report provided photographs of the 3/4 inch nipple that had broken, the scrubber it was attached to, as well as a Piping and Instrumentation Drawing (P&ID) identifying where the release occurred. In addition to the report and evidence provided by Anadarko, BSEE conducted an in-office investigation as well as an on-site investigation at VK-915A on 31 January 2025. BSEE inspectors took additional photographs of the incident location and affected equipment. The Accident Investigator (AI) also requested evidence from Anadarko's mechanical integrity team during the investigation.

From the evidence provided by Anadarko's mechanical integrity team on 31 January 2025, it was determined that the 3/4 inch nipple had failed due to fatigue cracking. There was no definitive explanation as to why the nipple had suffered fatigue cracking which caused it to break, resulting in the gas release. However, there were multiple factors that contributed to the nipple cracking. These possible causes are the over-tightening of the nipple when it was originally installed over four years ago, the possibility of the nipple slightly loosening and causing excessive vibration of the nipple, the possibility of too much weight on the nipple from supporting the sight glass level bridle, and the vibrations caused by the compressor #1 unit over an extended period of time.

The gas release from the broken nipple was in a location that could have resulted in a far worse incident. Although there was no injuries or significant equipment damage during this incident, there was potential for the gas that was released to contact the hot surfaces of the Compressor #1 which was within 10 feet and could have

created a fire or explosion hazard due to the flammable nature of the gas that was released. Anadarko has stated that they will be submitting a Management of Change (MOC) to install additional support to the Compressor #1 Suction Scrubber sight glass level bridle that will lower the amount of weight and vibration placed on the nipple. This should prevent fatigue cracking of the nipple in the future.

IN CONCLUSION:

On 24 November 2024, the platform operators were able to prevent the incident from escalating into a more serious incident by responding to the gas alarm that sounded on the Compressor, caused by the 3/4 inch nipple breaking on the Compressor #1 Suction Scrubber and allowing gas to escape. The facility safety systems functioned as designed. The gas detectors detected the gas release and alarmed personnel who were then able to shut in the platform. As a result of the incident, Anadarko will be submitting a MOC to add additional support to the suction scrubber sight glass level bridle in efforts to reduce the weight placed on the replacement 3/4 inch nipple and limit the amount of vibration on the nipple from the compressor #1 unit. By implementing these changes, Anadarko is taking measures to prevent similar incidents from occurring again in the future.

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

- Equipment failure - The 3/4 inch nipple that had broken suffered fatigue cracking due to compressor #1 vibrations for an extended period.
- Flawed equipment design - The insufficient support for the sight glass level bridle causing excessive weight on 3/4 inch nipple.

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

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Three-quarter inch pipe nipple

Broken

ESTIMATED AMOUNT (TOTAL):

\$100

22. RECOMMENDATIONS TO PREVENT RECCURANCE NARRATIVE:

BSEE New Orleans District recommends that the Office of Incident Investigations should consider issuing a Safety Alert regarding the incident.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

31-JAN-2025

28. ACCIDENT CLASSIFICATION:

For Public Release

26. Investigation Team Members/Panel Members:

29. ACCIDENT INVESTIGATION PANEL FORMED:

NO

27. OPERATOR REPORT ON FILE:

OCS REPORT:

30. DISTRICT SUPERVISOR:

Michael J. Saucier

APPROVED

DATE:

12-MAR-2025