

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: 03-APR-2013 TIME: 0838 HOURS

2. OPERATOR: **Anadarko Petroleum Corporation**
REPRESENTATIVE:
TELEPHONE:
CONTRACTOR: **Transocean Offshore**
REPRESENTATIVE:
TELEPHONE:

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

4. LEASE: **G18421**
AREA: **GC** LATITUDE: **27.2667536**
BLOCK: **683** LONGITUDE: **-90.8090947**

5. PLATFORM:
RIG NAME: **T.O. DISCOVERER SPIRIT**

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

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

6. OPERATION:
 STRUCTURAL DAMAGE
 CRANE
 OTHER LIFTING DEVICE
 DAMAGED/DISABLED SAFETY SYS.
 INCIDENT >\$25K
 H2S/15MIN./20PPM
 REQUIRED MUSTER
 SHUTDOWN FROM GAS RELEASE
 OTHER **Emergency Disconnect (Drift Off)**

8. CAUSE:
 PRODUCTION
 DRILLING
 WORKOVER
 COMPLETION
 HELICOPTER
 MOTOR VESSEL
 PIPELINE SEGMENT NO.
 OTHER
 EQUIPMENT FAILURE
 HUMAN ERROR
 EXTERNAL DAMAGE
 SLIP/TRIP/FALL
 WEATHER RELATED
 LEAK
 UPSET H2O TREATING
 OVERBOARD DRILLING FLUID
 OTHER **Drift Off**

9. WATER DEPTH: FT.

10. DISTANCE FROM SHORE: MI.

11. WIND DIRECTION: **SE**
SPEED: **90** M.P.H.

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

13. SEA STATE: **15** FT.

17. INVESTIGATION FINDINGS:

On April 3, 2013, at approximately 08:30 hours, the Emergency Disconnect was initiated on the Discoverer Spirit after high winds forced the rig off of location.

During the time of the incident, the rig was in the beginning of completion operations on the SS002 well located in GC 683. The rig had just finished setting a sump packer in the well with the use of a wireline unit and had pulled out of the hole when the incident occurred. The rig had been experiencing thunderstorms throughout the day, but until the time of the incident the winds had been mostly consistent at around 30 knots. At around 08:35 hours the winds generated from the thunderstorm increased from 30 knots to 78 knots and began to change direction. The combination of both the increased winds and the change in direction began to force the ship out of its "safe zone". The ships thrusters were unable to compensate for the sudden changes and couldn't maintain the ships position. In about 3 minute's time, the high winds had caused the ship to drift approximately 147 feet off of location and to the edge of the red watch circle. The red watch circle is the point at which damage will be sustained to the Riser and/or the Blow Out Preventers (BOP) if position isn't regained or the Lower Marine Riser Package (LMRP) isn't disconnected from the stack. It was at this time that the Emergency Disconnect was activated, releasing the LMRP from the BOP stack and allowing the rig to move safely away from the well.

After the Emergency Disconnect was initiated, the Remote Operated Vehicle (ROV) was sent down to the BOP to survey the area to ensure that all of the emergency functions had worked properly and that the well was secure. An investigation team was mobilized and all government agencies were notified of the incident. The total volume in the riser was approximately 1,664 barrels of 14.8 ppg Calcium Bromide/Zinc Bromide. It was confirmed that a total of 938 barrels was released into the Gulf of Mexico from the time of disconnect until the rig was reattached to the BOP. The fluid contained 36.6 pounds of Zinc per barrel of fluid, making it a total of 34,331 pounds of Zinc released into the environment.

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

A severe thunderstorm generating high winds caused the ship to drift off of location. The drastic change in the wind speeds along with a change in wind direction rendered the ship's thrusters unable to maintain the ship's position. The conditions of this storm were extremely rare and localized.

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

N/A

20. LIST THE ADDITIONAL INFORMATION:

The initial spill report and the INC that was issued after the incident stated that an estimated 711 barrels of ZnBr₂ was released into the Gulf of Mexico. Further investigation after the rig was allowed to latch back up showed that the exact volume of fluid lost was 938 barrels of Zinc Bromide/Calcium Bromide.

21. PROPERTY DAMAGED:

N/A

NATURE OF DAMAGE:

N/A

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

The Houma District has no recommendations at this time.

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

An E-100 was issued after the incident which stated:

"On April 3, 2013, at approximately 0838 hours, the Emergency Disconnect was initiated on the Discoverer Spirit after high winds forced the rig off of location. As a result, approximately 711 barrels of ZnBr2 was released into the Gulf of Mexico."

25. DATE OF ONSITE INVESTIGATION:

05-APR-2013

26. ONSITE TEAM MEMBERS:

Charles Arnold / James Richard /

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Bryan A. Domangue

APPROVED

DATE: **04-NOV-2013**