

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-2014** TIME: **1100** HOURS

2. OPERATOR: **Fieldwood Energy LLC**

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: **Ensco Offshore Co. -**

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- 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:

6. OPERATION:

4. LEASE: **G01039**

AREA: **SS** LATITUDE:

BLOCK: **274** LONGITUDE: -

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

5. PLATFORM: - **C**

RIG NAME: **ENSCO 87**

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 Gas migration during cementing

- FATALITY
- POLLUTION
- FIRE
- EXPLOSION

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

9. WATER DEPTH: **210** FT.
10. DISTANCE FROM SHORE: **53** MI.
11. WIND DIRECTION: **N**
SPEED: **1** M.P.H.
12. CURRENT DIRECTION: **N**
SPEED: **1** M.P.H.
13. SEA STATE: **1** FT.

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

On October 23, 2014, while performing drilling operations on Fieldwood Energy's C-22 well, the Ensco 87 drilling rig experienced a well control incident which resulted in the rig having to shut in the well and flow through their Diverter.

At the time of the incident, the Ensco 87 had been contracted by Fieldwood Energy LLC to sidetrack their C-22 well, located in Ship Shoal block 274, Lease #G1039. The well had been successfully drilled to a measured depth of 6,177 feet and preparations were made to begin running casing. The 13 5/8 inch surface casing was run to a depth of 5,960 feet when it got stuck. Unable to move the casing any further, the decision was made to move forward and cement the casing where it was since it was very close to the intended set depth. The cementing equipment was rigged up and 7,469 cubic feet of class H cement was pumped into the well to secure the casing. The crew observed 450 barrels of cement returns at the surface, confirming sufficient coverage of the cement, and the well was determined to be static following the cement job.

While waiting for the cement to cure, the crew began cleaning out the casing annulus using a 1.5 inch grout string and displacing the well with water based mud. A member of the drill crew had been positioned at the casing valve to monitor the well for flow while pulling out of the hole with the grout string. At approximately 10:15am, the employee noticed fluid start to flow out of the casing valve at a rate of approximately 15 barrels per hour. Unable to close the Diverter Annular with the grout string still in the hole, the crew rushed to clear the well. At 11:00am, as the grout string cleared the Diverter Annular, the fluid from the well reached the surface and the Driller began to close the Annular. As the Annular moved into the closed position, the fluid being discharged from the well reached a height of approximately 20 feet above the rig floor. Once the Annular was fully closed, flow to the rig floor was stopped and the fluid was directed out of the port side diverter line. For approximately 30 minutes the well intermittently discharged a mixture of gas, mud, and cement from the Diverter line.

The platform's Emergency Shut Down (ESD) was initiated and all non-essential personnel were evacuated from both the platform and the rig. In total, 8 personnel were evacuated from the platform and 54 personnel evacuated from the rig. Personnel were transferred by the rig crane onto the 'K-Marine VI', a workboat on standby for the rig. Eight personnel remained on the facility to monitor the well. After 30 minutes of intermittent flow, the well seemed to have become static. The rig crew continued to monitor the well and permission was granted by BSEE to fill the Annulus with a 9.8ppg water based mud. The well remained static and discussions between BSEE, Fieldwood, and Ensco were held to determine the best way to move forward.

No injuries, equipment damage, or pollution were sustained during the incident. A cement bond log was run to inspect the integrity of the cement in the well. The results of the log showed good coverage of the cement in the well. After reviewing all of the test data, it was determined that the event was due to a gas bubble that had entered the well during the cement job. While the rig was waiting for the cement to harden, the gas was able to migrate up the well and into the atmosphere

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

- While performing the cement job for the 13 5/8 inch surface casing, gas from the formation entered the well and slowly migrated up before the cement had time to cure.

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

N/A

20. LIST THE ADDITIONAL INFORMATION:

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 for BSEE Region at this time.

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

N/A

25. DATE OF ONSITE INVESTIGATION:

27-OCT-2014

26. ONSITE TEAM MEMBERS:

James Richard /

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Bryan Domangue

APPROVED

DATE: **27-JAN-2014**