

UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO REGION
ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: **28-FEB-2005** TIME: **2330** HOURS

2. OPERATOR: **Shell Offshore Inc.**

REPRESENTATIVE: **Mike Coston**

TELEPHONE: **(504) 728-1470**

3. LEASE: **G07963**

AREA: **MC** LATITUDE:

BLOCK: **807** LONGITUDE:

4. PLATFORM:

RIG NAME **H&P 201**

5. ACTIVITY: EXPLORATION (POE)

DEVELOPMENT/PRODUCTION
(DOCD/POD)

6. TYPE: FIRE

EXPLOSION

BLOWOUT

COLLISION

INJURY NO. _____

FATALITY NO. _____

POLLUTION

OTHER _____

7. OPERATION: PRODUCTION

DRILLING

WORKOVER

COMPLETION

MOTOR VESSEL

PIPELINE SEGMENT NO. _____

OTHER _____

8. CAUSE: EQUIPMENT FAILURE

HUMAN ERROR

EXTERNAL DAMAGE

SLIP/TRIP/FALL

WEATHER RELATED

LEAK

UPSET H2O TREATING

OVERBOARD DRILLING FLUID

OTHER _____

9. WATER DEPTH: **2945** FT.

10. DISTANCE FROM SHORE: **50** MI.

11. WIND DIRECTION: **N**

SPEED: **10** M.P.H.

12. CURRENT DIRECTION: **SW**

SPEED: **3** M.P.H.

13. SEA STATE: **3** FT.

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

Mike Coston

CITY: **New Orleans** STATE: **LA**

TELEPHONE: **(507) 728-1508**

CONTRACTOR: **Helmerich & Payne, Inc.**

CONTRACTOR REPRESENTATIVE/
SUPERVISOR ON SITE AT TIME OF INCIDENT:

P.D. Fletcher

CITY: **New Orleans** STATE: **LA**

TELEPHONE: **(504) 728-1508**

17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

The operator was cementing the 9-5/8" liner shoe. An Cement Retainer) had been set @ , which is ' above the shoe. The cement was pumped down a string of tapered drill pipe (5" on bottom and 5-7/8" on top) and through the cement retainer and into the open hole. A dual ball dropping head was utilized to maintain separation between the cement spacers, cement, and the synthetic based mud.

The pumping sequence was as follows: pumping Synthetic Based Drilling Fluid (SBM), dropping the first isolation ball, pumping a 50 bbl spacer, pumping 150 barrels of lead cement, pumping 67 barrels of tail cement, dropping the second isolation ball, pumping 10 barrels of water, and displacing job with SBM. When the slurry was pumped down hole, a pressure increase was seen as the first isolation ball entered the smaller pipe & then when it entered the ball catch sub. When the second ball entered the smaller pipe it was misread as entering the ball catch sub and the squeeze operation was stopped and the clean up operation started by pulling the cement stinger out of the retainer and circulating the well clean.

When the operator stopped early, he left the 67 barrels of cement in the pipe and circulated it to surface. Pumping the ppg cement to surface with ppg mud up the annulus at an angle of degrees mixes the cement with the mud. The cement tries to stay on the bottom side of the casing and the mud flows over the top for the ' trip to surface. When the contaminated fluid got to surface, the fluid engineer and the foreman on tour planned on dumping the interface which is usually less than 20 barrels. This procedure was understood by the operator to be an acceptable practice. In this particular case they dumped 280 barrels before diverting the fluid back to the pits. This resulted in approximately 204 barrels of SBM entering into the offshore waters.

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

The actions associated with this discharge were deliberate in order to keep the cement out of the rig's mud pits.

Mis-interpretation of the pressure increase seen when the second isolation ball entered the smaller pipe.

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

The operator did not have a contingency plan to prevent synthetic base mud from entering offshore waters during cementing operations.

The operator's acceptable practice for dumping the interface (usually less than 20 bbls of SBM) maybe in question.

21. PROPERTY DAMAGED: NATURE OF DAMAGE:
204 barrels of synthetic base mud. SBM lost overboard.

ESTIMATED AMOUNT (TOTAL): \$34,500

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The New Orleans District recommends to the Office of Safety Management that there is a need for guidance and clarification to the MMS and operators as to the permitted discharge volume of Non aqueous Based Drilling Fluid in the interface stage. As of now the operators are not reporting to the MMS the interface discharge of Non aqueous Drilling Based Fluids, if that volume is less than 20 bbls.

The New Orleans District concurs with Shell Offshore Inc.'s recommendations to prevent recurrence as stated below:

The unusual circumstances of the event resulted in a much larger volume of contaminated interface at surface than is normally encountered. While the error which led to early termination of the cement displacement is unlikely to be repeated, contingency plans will be put into place to deal with a large volume of cement contaminated Synthetic Based Mud at surface. These procedures are under development, but may include having a pit prepared to contain contaminated fluids, and chemicals on board to prevent the cement from hardening in the pit.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

E-100 30CFR250.300(a) States in part that. . . During the exploration, development, and production of oil and gas, the lessee shall take measures to prevent unauthorized discharge of pollutants into the offshore waters.

25. DATE OF ONSITE INVESTIGATION:

01-MAR-2005

26. ONSITE TEAM MEMBERS:

Randall Josey / Stephen Lucky /

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Troy Trosclair

APPROVED

DATE: 21-APR-2005

