

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

ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: 04-DEC-2009 TIME: 1600 HOURS

2. OPERATOR: Stone Energy Corporation

REPRESENTATIVE: walters, Amy

TELEPHONE: (337) 521-2274

CONTRACTOR:

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K pipeline riser failure
- 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: 00299

AREA: WC LATITUDE:

BLOCK: 45 LONGITUDE:

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO. 13264
- OTHER

5. PLATFORM: A

RIG NAME:

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

8. CAUSE:

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER External Corrosion

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

9. WATER DEPTH: 30 FT.

10. DISTANCE FROM SHORE: 7 MI.

11. WIND DIRECTION: SE
SPEED: 15 M.P.H.

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

13. SEA STATE: 3 FT.

17. INVESTIGATION FINDINGS:

On 4 December 2009 operations personnel at WC-45-A were contacted by personnel at the onshore tank battery facility and instructed to shut-in all production from the WC-45 field for compressor maintenance. Operations personnel shut in the A-10 gas lift oil well on board WC-45-A, and then proceeded to shut-in the WC 56 #16 (satellite platform) high pressure gas well. The latter well was shut-in by manually closing the incoming boarding Shutdown Valve (SDV) since the well does not have remote shut-in capabilities. Approximately five minutes after closure of the boarding SDV, the 3-inch incoming riser segment No.13264 parted approximately 8 feet above the water. The field boat which was standing-by at a nearby satellite platform was contacted and instructed to evacuate the two operators from WC-45-A. Both operators boarded the boat as gas escaped from the parted riser and travelled to the satellite platform. From the deck of the boat the operators observed the Surface Safety Valve (SSV) and SDV for the satellite platform close as they approached the structure. Due to rough seas the operators did not board the satellite platform, but did activate the Emergency Shutdown Device (ESD) on the boat landing before returning to WC-45-A. The operators stated no pollution was observed at time of the incident. Operations personnel boarded the satellite platform on 7 December 2009 and found the flowline Pressure Safety High/Low (PSHL) pilots functioning correctly and within tolerances.

On 11 December 2009 MMS representatives conducted an on-site investigation at WC- 45-A. An inspection of the 3-inch incoming pipeline riser segment No.13264 revealed extensive metal loss, heavy corrosion build-up on the exterior of the pipe and pitting in the area of the failure. Ultrasonic Testing readings confirmed extensive metal loss due to external corrosion.

The MMS investigation also revealed that pipeline segment No.13264 was placed out-of-service in June 2008 and reactivated in July 2009. The operator could not produce records to indicate that required MMS Regional Pipeline Office notification was made when the pipeline was out of service for more than 60 days, or when the line was flushed and filled with inhibited seawater after being out of service for more than one year. Further investigation also revealed the pipeline was not hydrostatically tested before reactivation, as required when pipelines are out of service for more than one year.

On 18 December 2009 MMS representatives returned to the WC- 45 field and continued with the on-site investigation. The MMS representatives performed a mock drill and estimated it took approximately 10 minutes for the operators to board the field boat and travel to the satellite platform on the day of the incident. While onboard the satellite platform results of the inspection revealed the flowline PSHL pilot sensing point to be located in the vertical run of the flowline, tie-wraps were hanging on the pull-to-reset relays, bird droppings covered the master panel including the pull-to-reset relays, and the departing pipeline riser had heavy corrosion build-up on the exterior of the pipe. A review of Stone's electronic pipeline tracking system revealed comments dating back to 2005 and 2006 but nothing referencing the pipeline being placed out of service in June 2008 through July 2009 or the reactivation of the pipeline. The next set of electronic pipeline tracking system comments included recent activities since the rupture incident. A review of Stone's level one inspection comments regarding pipeline riser Segment No.13264 state, "moderate surface corrosion throughout" and "riser was inaccessible for C.P. readings below the insulation flange". Note: C.P. readings referring to cathodic protection.

The affected pipeline (Segment No.13264) is a 3-inch Department of the Interior (DOI) bulk gas line installed in 2001 to carry produced gas condensate and water from the satellite platform to the WC-45-A platform, and has a Maximum Allowable Operating Pressure (MAOP) of 4,000 psi. Additional findings included:

*The satellite platform well has a Shut-In Tubing Pressure (SITP) of 3200 psi and a Flowing Tubing Pressure (FTP) of 1150 psi on a 19/64 size choke.

*Total production from the satellite platform is 2.429 MMCF per day and 27 bbls of condensate per day with no water production.

*The satellite platform is utilized to supply well A-10 with gas lift pressure onboard WC-45-A.

*Total production for Well A-10 is .107 MCF per day, 209 bbls of oil per day with no water production, and was producing prior to receiving instructions from the personnel at the onshore tank battery facility to shut-in all production from the WC-45 field.

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

Operations personnel manually closed the incoming boarding SDV for pipeline segment No.13264 and relied on "cascading" to shut-in production from the satellite platform since the well is not equipped with remote shut-in capabilities. As pressure increased on the pipeline, the line parted as a result of the corrosion issues associated with the pipeline riser.

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

* The section of the riser above the splashtron that ruptured had no protective coating.

* Corrosion issues are a result of the lack of maintenance to the pipeline riser and associated components.

* A level one inspection conducted on 9 November 2008 failed to identify the severity of pipeline riser Segment No.13264.

* The review of Stone's electronic pipeline tracking system revealed the database was not being updated with critical information.

* Leaving tie-wraps hanging on the pull-to-reset relays is an unsafe work practice and was observed during the on-site investigation of the satellite platform.

* Bird droppings on the pull-to-reset relays may have contributed to the relays not activating in a timely manner.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

3-inch pipeline riser Segment No.13264

NATURE OF DAMAGE:

Ruptured due to corrosion.

ESTIMATED AMOUNT (TOTAL):

\$200,000

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

The Lake Charles District does not have any recommendations for the MMS Regional Office of Safety Management.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

* L-141 (W) The pipeline was out of service for more than one year and was not flushed and filled with inhibited seawater.

* L-124 (W) The pipeline was out of service for more than one year and was not hydrostatically tested, as required before reactivation.

* G-111 (C) Lessee failed to maintain pipeline riser segment No.13264 in a safe condition.

* P-240 (C) The SSV on WC-56#16 failed to close in a timely manner and shut off production when the pipeline riser ruptured.

25. DATE OF ONSITE INVESTIGATION:

11-DEC-2009

26. ONSITE TEAM MEMBERS:

Scott Mouton / Galen Simon /
Jarrott Guillory /

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Larry Williamson

APPROVED

DATE: 12-JAN-2010

INJURY/FATALITY/WITNESS ATTACHMENT

OPERATOR REPRESENTATIVE

INJURY

CONTRACTOR REPRESENTATIVE

FATALITY

OTHER _____

WITNESS

NAME :

HOME ADDRESS :

CITY :

STATE :

WORK PHONE :

TOTAL OFFSHORE EXPERIENCE :

YEARS

EMPLOYED BY :

/

BUSINESS ADDRESS :

CITY :

STATE :

ZIP CODE :

OPERATOR REPRESENTATIVE

INJURY

CONTRACTOR REPRESENTATIVE

FATALITY

OTHER _____

WITNESS

NAME :

HOME ADDRESS :

CITY :

STATE :

WORK PHONE :

TOTAL OFFSHORE EXPERIENCE :

YEARS

EMPLOYED BY :

/

BUSINESS ADDRESS :

CITY :

STATE :

ZIP CODE :