

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: 20-JUL-2018 TIME: 0855 HOURS

2. OPERATOR: Stone Energy 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: 8. OPERATION:

4. LEASE: 00064

AREA: SS LATITUDE:
BLOCK: 114 LONGITUDE:

5. PLATFORM:

RIG NAME: * LIFT BOAT

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER Well uprighting for PA

6. ACTIVITY:

- EXPLORATION(POE)
- DEVELOPMENT/PRODUCTION (DOCD/POD)

7. TYPE:

- HISTORIC INJURY
 - REQUIRED EVACUATION 1
 - LTA (1-3 days)
 - LTA (>3 days) 1
 - 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. CAUSE:

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

- 10. WATER DEPTH: 52 FT.
- 11. DISTANCE FROM SHORE: 12 MI.
- 12. WIND DIRECTION: W
SPEED: 12 M.P.H.
- 13. CURRENT DIRECTION:
SPEED: M.P.H.
- 14. SEA STATE: 2 FT.
- 15. PICTURES TAKEN:
- 16. STATEMENT TAKEN:

17. INVESTIGATION FINDINGS:

On July 20, 2018, an incident occurred while Stone Energy Corporation was attempting to plug and abandon (P&A) well # 44 in Ship Shoal 114 field using a dive operation. A diver suffered significant injuries to the fingers on his right hand, while attempting to maneuver a casing over a wellhead underwater. The diver was transported to the dock via crew boat, then to the hospital for further evaluation and treatment.

Stone Energy contracted Epic Companies to assist in the P&A process of well # 44. This well was knocked over and damaged during Hurricane Elena in 1985. Well # 44 is a surface well in approximately 52 feet of water and was previously abandoned in January 1989. The multiphase P&A operations are still on going. This first phase required excavation activities so they could reach the 45 degree bend of the well. Stone Energy estimated the bend to be at 65 feet below the original mudline. The excavation resulted in the removal of 180,000 cubic feet of sediment, resulting in a hole approximately 120 feet in diameter by 20 foot deep. The second phase of the P&A operation required two liftboats to be on location. Liftboats, Ram 18 and Ram 19 were on location to assist in the second phase of the operation, which required their cranes and deck space for equipment. The approved second phase of the procedure called for a 105 foot long by 60 inch diameter casing to be placed over the damaged well head below the mudline using the two cranes from both liftboats. Once the 60 inch casing was stabbed over the existing 9.625 inch wellhead, 13.375 inch, 20 inch, 36 inch and 48 inch casings, the goal was to bend back the well upright in its original vertical position.

On the morning of July 20, 2018, the weather conditions were clear and the Gulf of Mexico was calm. The wind was blowing from the West at 12 miles per hour and the sea state was consistently at two feet. Prior to commencing work, a Job Safety and Environmental Analysis (JSEA) was reviewed and signed by the crew. The crew consisted of a Dive Supervisor, two Divers, one Lead Dive Tender, three Dive Tenders, two Crane Operators and a Health Safety and Environmental (HSE) representative. The morning operations first began by lowering the 105 foot by 60 inch casing into the water with the two cranes. At approximately 07:28 a.m., one diver positioned himself in the diving bell while the other diver stood by waiting on the deck. The diver was lowered into the water by the diving bell which was located near the bow of the liftboat Ram 18. He was being lowered into the water to help position the 60 inch casing over the wellhead. The diver was able to help position the casing over the wellhead by straddling the casing, visually inspecting, and communicating the casing positioning to the Lead Dive Tender through his dive helmet intercom. The Lead Dive Tender would then relay the positioning of the casing to the Crane Operator so that he could make adjustments as needed.

An hour and twenty minutes into the crane and dive operations, the 60 inch casing was guided over the 9.625 inch wellhead, 13.375 inch, and 20 inch pipe without any issues.

When the casing swallowed the 36 inch pipe, the diver began to slip to one side and he reacted by reaching forward with his gloved right hand. As he reached forward, he grabbed the lip of the 60 inch casing. At the same time, the casing shifted unexpectedly causing his fingers to be mashed between the 36 inch and 60 inch casing. He immediately notified his Dive Supervisor through the intercom that his fingers were mashed and blood was coming from his glove. The Dive Supervisor notified the standby diver to prepare for a rescue dive and he then asked the injured diver if he could return to the diving bell without assistance. The injured diver responded by saying yes and then entered the diving bell so that he could be hoisted up. Before he could be hoisted up to the surface, a two minute water stop was required so that his body could decompress. After completing the stop, the bell was hoisted to surface and a Stop Work Authority (SWA) was issued. The diver's equipment was removed, bandages were applied and he was placed in a Hyperbaric Chamber to finish the surface decompression. The diver suffered an amputation of the right index finger and the

finger was kept on ice until he arrived at the hospital. Upon exiting the chamber, the right hand was re-dressed with fresh bandages and medication was administered. Since the diver could not be airlifted due to his recent decompression, he was placed on a crew boat and sent to shore for further medical treatment. The crew boat ride lasted 2 hours and 40 minutes.

The Bureau of Safety and Environment Enforcement (BSEE) investigation team conducted the initial onsite investigation on July 25, 2018. The team collected evidence, and interviewed all personnel that were involved. Documentation showed that there was only one diver in the water while this operation was taking place. At the time of the incident, the 105 foot by 60 inch casing was suspended from the crane by two welded padeyes approximately 10 foot from each end of the casing. According to documentation, the diver straddled the casing near its end so he could see and relay information back to the Lead Dive Tender. The Lead Dive Tender would then relay to the Crane Operator how to move the casing. While attempting to visually guide the casing into place, the diver slipped and when he put his hand down to catch himself, he grabbed the lip of the 60 inch casing. At this time a sea swell caused the casing to shift and smashed the diver's fingers on his right hand.

Since the incident, the operator has developed a Safe Work Plan and has discussed this plan with their crew. Plan one discusses an option of using a Remotely Operated Vehicle (ROV) which would eliminate the use of a diver to be present. A second plan discusses if a diver is needed, a type of hand hold would be fabricated on the casing and reinforce the importance of hand and body placement in the Safety Meetings and JSEA.

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

Poor Hand and body placement by the diver on the casing.

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

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

N/A

N/A

ESTIMATED AMOUNT (TOTAL):

\$

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

BSEE Houma District has no recommendations for the Office of Incident Investigations at this time.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

25-JUL-2018

26. INVESTIGATION TEAM MEMBERS:

**Daniel Ballard / Paul Reeves / Cedric
Bernard / Josh Ladner /**

27. OPERATOR REPORT ON FILE:

28. ACCIDENT CLASSIFICATION:

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Bryan Domangue

APPROVED

DATE: **09-OCT-2018**