UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: **14-MAR-2018** TIME: **1640** HOURS

2. OPERATOR: **McMoRan Oil & Gas LLC**
REPRESENTATIVE:
TELEPHONE:

CONTRACTOR: **Helix Energy Solutions**
REPRESENTATIVE:
TELEPHONE:

- [ ] STRUCTURAL DAMAGE
- [ ] CRANE
- [X] OTHER LIFTING **Man Rider & CTLF**
- [ ] 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:

4. LEASE: **G13367**
AREA: **GB** LATITUDE:
BLOCK: **161** LONGITUDE:

5. PLATFORM:
RIG NAME: **CAL-DIVE Q-4000**

6. ACTIVITY:
- [ ] EXPLORATION(POE)
- [X] DEVELOPMENT/PRODUCTION (DOCD/POD)

7. TYPE:

- [ ] HISTORIC INJURY
- [X] REQUIRED EVACUATION **1**
- [ ] LTA (1-3 days)
- [X] 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

8. OPERATION:

- [ ] PRODUCTION
- [ ] DRILLING
- [ ] WORKOVER
- [ ] COMPLETION
- [ ] HELICOPTER
- [ ] MOTOR VESSEL
- [ ] PIPELINE SEGMENT NO.
- [X] OTHER **Well Abandonment**

9. CAUSE:

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

10. WATER DEPTH: **972** FT.

11. DISTANCE FROM SHORE: **132** MI.

12. WIND DIRECTION: **W**
SPEED: **14** M.P.H.

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

14. SEA STATE: **5** FT.

15. PICTURES TAKEN:

16. STATEMENT TAKEN:

17. INVESTIGATION FINDINGS:

At 16:40 hours on 14 March 2018, a Helix Energy Solutions (Helix) Roughneck sustained serious injuries to his left hand during well abandonment operations on the Helix Q4000 semisubmersible vessel under contract to Freeport-McMoRan Oil & Gas LLC (McMoRan) at the surface location in Garden Banks (GB) Block 161. The severity of the injuries to Helix Roughneck's left hand required evacuation for surgery.

Helix Q4000 personnel were tasked on 14 March 2018, to hoist and install a wireline valve assembly using the coiled tubing lift frame (CTLF) that is attached to a multipurpose tower (MPT). A permit to work, four job safety analyses (JSAs), and a man riding checklist were prepared prior to work activities and reviewed by all personnel involved in this task. Two Helix Roughnecks were hooked up to man riders and then positioned on the CTLP in order to guide the wireline valve assembly as it was being hoisted with the main wench. One of the Helix Roughnecks observed that the wireline valve assembly began to shift as it was being hoisted and could potentially contact the CTLF. Therefore, the Helix Roughneck used his left hand to grab the static line above the sheave on the CTLF main wench in an attempt to reposition the wireline valve assembly. His left hand then became trapped in between the main winch sheave and the static line cable. He initiated a stop work request and directed the CTLF operator to lower the main winch to free his left hand. The Helix roughneck was lowered to the rig floor and escorted to the Rig Medic's office for a medical evaluation and first aid. It was observed that his left thumb was partially amputated in addition to a severe laceration on the left ring finger. The Helix Roughneck was evacuated from the Q4000 by helicopter and transported to University of Texas Medical Branch at Galveston for medical attention.

BSEE investigators conducted an onsite incident investigation at the Q4000 on 15 March 2018. BSEE meet with McMoRan and Helix representative who informed BSEE that they were in the initial stages of their investigation, so information was limited. BSEE gathered all available pertinent documents, inspected the incident scene and coordinated for the delivery of all remaining investigation-related documents from McMoRan and Helix.

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

The BSEE incident investigation team determined that the probable cause of the incident was due to improper hand placement on the CTLF main wench static line as the wireline valve assembly was being hoisted for installation.

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

BSEE's investigation into this incident identified the following contributing causes: 1) inadequate pre-job preparation and job hazardous analysis failed to recognize specific pinch points during CTLF main wench lifting operations; 2) the CTLF main wench lifting operational procedures had insufficient engineering controls in place to stabilize the wireline valve assembly from striking the CTLF; 3) the design of the CTLF created clearance problems when lifting a wireline valve assembly; and 4) since CTLF lifting operations during this incident were routine, the crew was not accustomed to implementing stop work authority.

20. LIST THE ADDITIONAL INFORMATION:

LIST OF ATTACHMENTS:

21. PROPERTY DAMAGED:

No property was damaged during this incident.

NATURE OF DAMAGE:

Not applicable.

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE Lafayette District makes no recommendations to the Regional Office of Incident Investigations regarding this incident.

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

A G-110 Incident of Noncompliance (INC) was issued “After the Fact” to document that Freeport-McMoRan Oil & Gas LLC (McMoRan) failed to oversee that operations were performed in a safe and workmanlike manner on the Helix Energy Solutions (Helix) Q4000 semisubmersible vessel during well abandonment operations on Well 001 located in Garden Banks Block 161. On 14 March 2018, McMoRan failed to provide adequate supervision when a Helix Roughneck sustained injuries to his left hand from a sheave while hoisting a wireline safety valve using a coiled tubing lift frame. The Helix Roughneck was evacuated and required surgery to reattach a partial amputation of his left hand thumb and treatment for a left hand ring finger laceration.

25. DATE OF ONSITE INVESTIGATION:

15-MAR-2018

26. INVESTIGATION TEAM MEMBERS:

Ernest Carmouche (Onsite) / Jack Angelle (Onsite) / Troy Naquin (Onsite & Report Author) /

27. OPERATOR REPORT ON FILE:

28. ACCIDENT CLASSIFICATION:

29. ACCIDENT INVESTIGATION PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Elliott S. Smith

APPROVED DATE: **29-MAY-2018**