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: **06-APR-2022** TIME: **1215** HOURS

2. OPERATOR: **Cox Operating, L.L.C.**
   REPRESENTATIVE:
   TELEPHONE:
   CONTRACTOR: **PARADIGM FLOW SOLUTIONS USA Inc**
   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:

4. LEASE: **G02937**
   AREA: **WD** LATITUDE: **28.834041**
   BLOCK: **109** LONGITUDE: **-89.453156**

5. PLATFORM: **A**
   RIG NAME:

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

7. TYPE:
   INJURIES:
- [ ] HISTORIC INJURY

	OPERATOR	CONTRACTOR
[X] REQUIRED EVACUATION	**0**	**1**
[ ] LTA (1-3 days)		
[X] LTA (>3 days)	**0**	**1**
[ ] RW/JT (1-3 days)		
[ ] RW/JT (>3 days)		
[ ] FATALITY		
[ ] Other Injury		

- [ ] POLLUTION
- [ ] FIRE
- [ ] EXPLOSION

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

COLLISION [ ] HISTORIC [ ] >$25K [ ] <=$25K

8. OPERATION:
- [X] PRODUCTION
- [ ] DRILLING
- [ ] WORKOVER
- [ ] COMPLETION
- [ ] HELICOPTER
- [ ] MOTOR VESSEL
- [ ] PIPELINE SEGMENT NO.
- [ ] OTHER

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: **184** FT.
11. DISTANCE FROM SHORE: **7** MI.
12. WIND DIRECTION:
    SPEED: M.P.H.
13. CURRENT DIRECTION:
    SPEED: M.P.H.
14. SEA STATE: FT.
15. PICTURES TAKEN:
16. STATEMENT TAKEN:

On 6 April 2022, an injury requiring evacuation occurred on West Delta (WD) 109 platform "A", a production platform owned and operated by Cox Operating, L.L.C. (Cox). The injured person (IP), a contractor from Paradigm Flow Solutions USA Inc. (Paradigm) was contracted to perform a pressure test on pipeline segment #15745 and was injured while pressure was being bled down from the Flexi-Coil system. As the IP began to bleed pressure from a ball valve, the Flexi-Coil hose whipped, causing it to become free and uncontrollable, striking the coil reel for the Flexi-Coil. The ball valve then came apart and the handle struck the IP's right thumb creating a laceration. The IP received basic first aid on location and was sent to a medical facility onshore where treatment beyond first aid was given.

SEQUENCE OF EVENTS:

Cox reported the following sequence of events via their initial incident notification and follow-up incident analysis report:

On 6 April 2022, at approximately 1215 hours, contract personnel from Paradigm began a pressure test of their Flexi-Coil hose with 5.5 barrels of saltwater to 10,000 psi for 10 minutes. After a successful pressure test, they began bleeding down the pressure from 10,000 psi to 6,000 psi through a needle valve located at the discharge of the pump used for the pressure test. The IP accidently fully opened a ball valve (a second bleed valve) simultaneously, causing the Flexi-Coil hose to whip from the excessive pressure and depart from the IP's hand, striking the coil reel unit. The ball valve broke apart when it came into contact with the coil reel unit, and the handle struck the IP's right thumb. First Aid was given to the IP immediately, but it was determined that the IP needed to be transported onshore for further evaluation.

Due to the foggy weather conditions at the time of the incident, the only viable transportation was by the nearby contract motor vessel, Ms. Christine. Platform personnel assisted in placing the IP in the middle of a personnel basket where they assisted the IP safely to the motor vessel and transported him to Grand Isle, LA. The IP was then transported by motor vehicle from Grand Isle, LA to a medical facility in Thibodaux, LA. The transportation took an estimated six hours from time of incident until the IP reached the medical facility.

BSEE INVESTIGATION:

On 6 April 2022 at approximately 1500 hours, Bureau of Safety and Environmental Enforcement (BSEE) Accident Investigator (AI) received notification of an injury requiring evacuation of a contractor from WD 109 A. Due to the weather, an on-site investigation was not able to be conducted. As a result, the AI requested documentation from Cox and reviewed photos, Job Safety Analysis (JSA), and other documentation received. The IP was employed by Paradigm with 16 years of experience. Cox contracted Paradigm to perform pipeline corrective action using Paradigm's Flexi-Coil system. The Flexi-Coil system is designed to enter into pipelines and flowlines and provide blockage removal and clean flowlines over long distances. Prior to beginning the pipeline corrective action job, Paradigm personnel needed to pressure test the Flexi-Coil hose. This was done by pumping 5.5 bbls of saltwater into the hose, bringing the pressure up to 10,000 psi, then holding it for 10 minutes. The test was successful, so Paradigm personnel began bleeding down the pressure through a needle valve at the discharge of the pump. Cox's incident analysis report stated as pressure was being bled down through the needle valve, the IP opened a ball valve on the upstream end of the flex coil hose. According to the report, the IP stated "[he] had bled off the pressure in this manner many times before without incident, but the ball valve was positioned differently on this unit, and it fully opened resulting in a

rapid release of pressure." The rapid pressure caused the flex coil hose handle to break free and whip uncontrollably, striking the coil reel unit. The end of the Flexi-Coil hose was not secured to prevent it from moving and pulling through the horse head. As a result, the ball valve came apart when it hit the unit and struck the IP's right hand causing a laceration. The report also states that the IP was only wearing latex gloves at the time of the incident because he was handling hydraulic fluid prior to the bleed down.

The IP stated that bleeding off pressure through the ball valve is something that had been done many times before without incident

On 14 April 2022, BSEE received an Incident Analysis Report from Cox. The report indicated the IP was wearing latex gloves at the time of the incident.

CONCLUSIONS:

The probable cause of this incident is the ball valve striking the unit after being whipped around due to a rapid release of pressure. This caused the ball valve to break apart and strike the IP in his right thumb causing a laceration. The following factors contributed to this incident: 1. The IP allegedly fully opened the ball valve at the same time the needle valve was in an open position, causing the rapid pressure release. The IP should have continued to release pressure through the needle valve until pressure was sufficiently bled down. 2. The Flexi-Coil hose was not secured to anything which would have prevented it from uncontrollably moving around. 3. The IP was wearing latex gloves but should have been wearing impact resistant gloves while working with high pressure equipment.

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

The ball valve striking the unit after being whipped around due to a rapid release of pressure. This caused the ball valve to break apart and strike the IP in his right thumb causing a laceration.

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

1. The IP allegedly fully opened the ball valve at the same time the needle valve was in an open position, causing the rapid pressure release. The IP should have continued to release pressure through the needle valve until pressure was sufficiently bled down.
2. The Flexi-Coil hose was not secured to anything which would have prevented it from uncontrollably moving around.
3. The IP was wearing latex gloves but should have been wearing impact resistant gloves while working with high pressure equipment.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

N/A

NATURE OF DAMAGE:

N/A

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE New Orleans District makes no recommendations to the Office of Incident Investigation.

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

26. INVESTIGATION TEAM MEMBERS:

Nathan Bradley /

27. OPERATOR REPORT ON FILE:

28. ACCIDENT CLASSIFICATION:

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

OCS REPORT:

30. DISTRICT SUPERVISOR:

David Trocquet

APPROVED DATE: **06-JUL-2022**