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

ACCIDENT INVESTIGATION REPORT

1. OCCURRED
   DATE: **23-NOV-2025** TIME: **0557** HOURS
2. OPERATOR: **LLOG Exploration Offshore, L.L.C.**
   REPRESENTATIVE:
   TELEPHONE:
   CONTRACTOR: **Seadrill Americas**
   REPRESENTATIVE:
   TELEPHONE:

- [ ] STRUCTURAL DAMAGE
- [ ] CRANE
- [X] OTHER LIFTING **Derrick**
- [ ] 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: **G25806**
   AREA: **KC** LATITUDE:
   BLOCK: **785** LONGITUDE:

5. PLATFORM:
   RIG NAME: **SEADRILL WEST NEPTUNE**

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

7. TYPE:
   INJURIES:
   - [ ] HISTORIC INJURY

	OPERATOR	CONTRACTOR
[ ] REQUIRED EVACUATION		
[ ] LTA (1-3 days)		
[ ] LTA (>3 days)		
[ ] 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:
   - [ ] PRODUCTION
   - [ ] DRILLING
   - [ ] WORKOVER
   - [X] COMPLETION
   - [ ] HELICOPTER
   - [ ] MOTOR VESSEL
   - [ ] PIPELINE SEGMENT NO.
   - [ ] OTHER
   - [ ] TEMP ABAND
   - [ ] PERM ABAND
   - [ ] DECOM PIPELINE
   - [ ] DECOM FACILITY
   - [ ] SITE CLEARANCE

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

10. WATER DEPTH: **6608** FT.
11. DISTANCE FROM SHORE: **220** MI.
12. WIND DIRECTION: **NE**
    SPEED: **5** M.P.H.
13. CURRENT DIRECTION: **SW**
    SPEED: **2** M.P.H.
14. SEA STATE: **1** FT.
15. PICTURES TAKEN:
16. STATEMENT TAKEN:

Incident Summary:
On 23 November 2025, LLOG Exploration Offshore, L.L.C. (LLOG) was conducting drilling operations of pulling riser on Well SS005 at Keathley Canyon Block 785 when six of eight riser fins dislodged and fell. There were no injuries during this incident.

Riser fins are structural guide plates that are installed along the outer surface of marine riser joints, and the primary function is to help centralize, stabilize, and control the riser as it moves through riser handling systems. The riser fins are attached to the risers with a synthetic fiber band and single-bolt tensioner by wrapping the synthetic fiber band around the riser and the base of the fin. The fins are then clamped securely in place by the single-bolt tensioner by pulling on the band tightly.

Sequence of Events:
On 23 November 2025, during the process of pulling and laying down slick riser joint #27 to the riser skate, one of the riser centralizer fins weighing about 62 pounds fell approximately 70 feet from the slick joint and struck the spider platform and gimbal on the rig floor. The impact of the riser fin displaced the hole cover and released approximately 5,798 joules of kinetic energy, that is ample enough to cause a fatal injury. Therefore, riser pulling operations were suspended and the drill floor was secured. No personnel were in the Red Zone at the time of riser fin impact.

The hole cover on the gimbal was reinstalled and the operation to lay down the slick riser joint #27 resumed. As the riser slick joint was laid down, another riser fin fell and came to rest on the forward portion of the riser skate. The estimated kinetic energy associated with this dropped fin was approximately 5,798 joules, which is consistent with the first dropped riser fin event thus creating a second potentially fatal injury. No personnel were present in the Red Zone at the time of the second dropped fin. The riser was laid down onto the riser skate, and the rig floor was secured again.

After the riser slick joint #27 was laid down, it was inspected and it was discovered that six of the eight riser fins were missing. An investigation revealed that two fins fell to the spider and gimble on the rig floor, three were located floating in the moonpool, one was missing and two remained secured to the riser slick joint.

BSEE Investigation:
On 19 December 2025, the Bureau of Safety and Environmental Enforcement (BSEE) Lafayette District conducted an onsite Incident Follow-up Investigation. BSEE met with LLOG and Seadrill representatives and gathered all available incident-related documentation.
LLOG's investigation revealed that the proper tension for the synthetic fiber band and single-bolt tensioner was neither applied nor verified. Following the completion of the riser pulling operations, LLOG confirmed that the torque on all single-bolt tensioners did not meet the Original Equipment Manufacturer (OEM) torque specifications.
Riser slick joint #27 which was being pulled at the time of the incident had recently been returned from Condition-Based Maintenance (CBM). A review of the work performed during the CBM, including installation of the riser fins, synthetic fiber band, and single-bolt tensioner, identified that the refurbishment contractor's operations did not meet the OEM installation specifications. The refurbishment contractor did not communicate the OEM requirements to Seadrill, thereby reducing the assurance that the riser was returned to service in compliance with design and operational requirements.

Seadrill determined that the single-bolt tensioner in use at the time of the incident was not the design or part recommended by the OEM or by Seadrill Technical Services. On 3 September 2016, the Seadrill West Carina experienced a similar dropped fin event. At the time, the OEM recommended that the single-bolt tensioner required

improved tensioner design to prevent riser fins from detaching. However, the legacy tensioner design remained in service from 2016 through the time of this incident. During the BSEE investigation, it was discovered that Seadrill's Standard Operating (SOM) Manual, entitled "Splash BOP and Run Riser," requires the Subsea Engineer to verify proper torque of the riser fin securing system and document this verification in the Preparation Checklist however this process was not followed. The Preparation Checklist did not contain evidence that the Subsea Engineer participated in or completed the required checklist verification steps, which was confirmed through follow-up interviews conducted by Seadrill. Additionally, the required SOM Preparation Checklist was not reviewed or executed prior to deploying the riser slick joint, as it was perceived by the Subsea Engineer to add limited value for a routine task.
The BSEE Incident Investigation Team reviewed LLOG's report which identified the root cause of this incident as riser fins being improperly installed and not verified in accordance with OEM and SOM procedural requirements.

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

Equipment Failure:
• Inadequate preventative maintenance. The root cause of this incident was the riser fins that were improperly installed and not verified in accordance with OEM and SOM procedural requirements. The torque of the riser fin securing systems was not verified by the Subsea Engineer prior to deployment as required in the Preparation Checklist.

Communication:
• Inadequate communication. Slick joint riser #27 was sent for CBM. The CBM work performed included installation of the riser fins, synthetic fiber band, and single-bolt tensioner. The OEM recommended that the single-bolt tensioner required improved tensioner design to prevent riser fins from detaching. During the CBM, it was discovered that the contractor's refurbishment operations did not meet with OEM installation specifications. Seadrill's investigation report stated that the contractor did not communicate the OEM requirements to Seadrill. This reduced assurance that the riser was returned to service in compliance with design and OEM requirements.

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

Human Performance Error:
• Inattention to task. The Subsea Engineer did not confirm that the riser fins were torqued correctly and failed to follow the Preparation Checklist outlined in Standard Operating Manual.

Management Systems:
• Inadequate job procedures. Seadrill failed to verify the workmanship on riser slick joint #27 following the CBM performed by the contractor. This resulted in the riser fins to being installed without completion of the required 48-hour retorque. Additionally, the required SOM verification procedures were not reviewed or executed prior to employing the riser, as the task was mistakenly treated as routine.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

One riser fin was lost to sea during this incident.

NATURE OF DAMAGE:

One fin was fell off the riser and was lost to sea during this incident.

ESTIMATED AMOUNT (TOTAL): **$404**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE Lafayette District recommends to the Office of Incident Investigations that a Safety Alert should be issued regarding this incident.

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

On 20 February 2026, a G110 Incident of Noncompliance was issued to LLOG Exploration Offshore L.L.C. (LLOG) for the failure to perform all operations in a safe and workmanlike manner and provide for the preservation and conservation of property and the environment. On 23 November 2025 at approximately 05:57 hours, LLOG reported to BSEE an incident that occurred while pulling riser. Riser joint #27 was placed in the riser cart; and while being lowered from vertical, a guide fin fell from the riser at a height of approximately 50 feet. The fin struck the hole cover and then bounced and hit the spider handrail before coming to rest on the floor of the spider platform. An all stop was called; the situation was assessed and discussed. The incident was put in eWell by the Operator. BSEE conducted an onsite Incident Follow-up Investigation into the incident. BSEE reviewed all documentation provided by Seadrill and LLOG and discovered the verification of proper torque on the riser fin securing system by the Subsea Engineer, as required in the Preparation Checklist of Standard Operating Manual, was not completed prior to execution. BSEE determined a G110 is issued due to the event having the potential and could have resulted in a serious injury or fatality.

25. DATE OF ONSITE INVESTIGATION:

12-DEC-2025

28. ACCIDENT CLASSIFICATION:

26. Investigation Team Members/Panel Members:

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

OCS REPORT:

27. OPERATOR REPORT ON FILE:

30. DISTRICT SUPERVISOR:

Mark Malbrue

APPROVED DATE: **23-MAR-2026**