

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

For Public Release

ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: **09-MAY-2025** TIME: **0900** HOURS

2. OPERATOR: **W & T Offshore, Inc.**

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: **Danos & Curole Marine Contracto**

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: **G13938**

AREA: **ST** LATITUDE:

BLOCK: **229** LONGITUDE:

5. PLATFORM: **A**

RIG NAME:

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

8. OPERATION:

- ☒ PRODUCTION ☐ TEMP ABAND
☐ DRILLING ☐ PERM ABAND
☐ WORKOVER ☐ DECOM PIPELINE
☐ COMPLETION ☐ DECOM FACILITY
☐ HELICOPTER ☐ SITE CLEARANCE
☐ MOTOR VESSEL
☐ PIPELINE SEGMENT NO.
☐ OTHER

7. TYPE:

INJURIES:

☐ HISTORIC INJURY

☒ REQUIRED EVACUATION

☐ LTA (1-3 days)

☐ LTA (>3 days)

☐ RW/JT (1-3 days)

☐ RW/JT (>3 days)

☐ FATALITY

☒ Other Injury

First Aid

☐ 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: **230** FT.

11. DISTANCE FROM SHORE: **47** 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:

Incident Summary: On May 9, 2025, W & T Offshore Inc. (W & T) notified the Bureau of Safety and Environmental Enforcement (BSEE) Houma District Office that a crane incident occurred at a platform (A) located within Block 229 of the South Timbalier Area (ST-229), Lease OCS-G13938, approximately 50 miles offshore in the Gulf of America. W & T reported that a load block failure during crane operations resulted in the evacuation of an injured person (IP). The IP was evacuated via the Gulf Offshore Logistics (GOL) motor vessel (MV) "Force" to the Port of Fourchon and transported to Occupational Medicine Services (OMS) in Houma, Louisiana, for further treatment. The crane was immediately secured.

Sequence of Key Events:

W & T reported to BSEE that at approximately 9:00 am on May 9, 2025, offloading operations began at ST-229. Prior to the work beginning, the Job Safety Analysis (JSA) and Crane Pre-Use Inspections were completed. The JSA was placed in a kitchen trash bag and attached to the hook of the stinger from the load block in order for it to be lowered down to the MV for review and signature. W & T described that after lowering the load block about one-quarter of the way to the vessel, the crane cable lost tension and fell onto the aft deck of the MV. The IP, a Deckhand who was located nearby but not directly beneath the load, had time to retreat toward the front of the MV before the load block hit the back deck. The load block sheave's descent was delayed due to it being slung upwards into the air before it fell and landed on the top of the grocery box. The IP sustained a muscular strain of the back while evading the failed components of the load.

Following the incident, the cable and load block were lifted high enough to clear them off of the back deck of the MV, releasing the boat from danger and enabling the evacuation of the IP to proceed. The crane was secured, and the load block remained just above water level, the stinger and attached JSA were left submerged underwater. The load block sheave that landed on the MV remained onboard during the evacuation and was given to the dispatcher at the onshore boat dock for return.

The IP was evacuated via GOL's MV Force to the Port of Fourchon and transported to OMS in Houma, Louisiana, where he received first aid treatment for a lumbar muscle strain and released to full duty.

On May 10, 2025, a third-party contracted Crane Mechanic and a W & T Compliance Tech flew to ST-229 to "safe out" the crane and begin the W & T Investigation. The Crane Mechanic was able to retrieve the load block and rest it on the top deck and boom the crane down in preparation for the BSEE Investigation.

On May 12, 2025, BSEE Houma District Accident Investigators flew to ST-229 to conduct an onsite Incident Follow-Up (IF) Investigation. BSEE inspected the crane, took photos, and engaged in discussion with the Crane Mechanic who was present to assist in the physical inspection. BSEE conducted interviews with personnel involved in crane operations at the time of the incident including the Crane Operator, Rigger, and Boat Captain. BSEE reviewed and evaluated all crane maintenance reports and crane usage history. Following the BSEE IF, the load block, ejected sheave, and spiral retainer were shipped by W & T to the crane contractor's maintenance facility for detailed inspection and Root Cause Analysis (RCA).

BSEE Investigation:

At approximately 11:00 am, on May 9, 2025, the BSEE Houma District received an immediate verbal notification from W & T that an IP had been evacuated due to injuries related to a crane incident at ST-229. Due to weather constraints, BSEE Houma District Investigators were unable to fly offshore and conduct an IF on the same day as the incident. As a result, BSEE Investigators requested preliminary documentation such as previous crane maintenance and inspection reports and pictures of the current state of the crane.

Within hours W & T began to submit initial incident pictures and reports including the following: the Incident Report from W & T, the GOL Injury Report, and the GOL Incident Report. The initial post-incident pictures submitted to BSEE by W & T featured the following: a picture of the load block sheave that remained on the deck of the MV

Force, the submerged stinger and white trash bag containing the water-soaked JSA paperwork, and the anti-two block slings with its associated hydraulic plumbing at the boom tip.

The GOL Injury Report contained a hand-written and signed description of the incident from the IP. According to his description, when the IP saw the wire rope cable fall to the deck, he twisted his back as he ran to get out of the way. The GOL Incident Report included a signed witness statement from the Boat Captain of the GOL MV Force. The Boat Captain reported that "While being on DP (Dynamic Positioning) holding steady, we were preparing to get a JSA off the hook of the crane and something broke on the crane. The hook suddenly free fell on the deck and the Deckhand quickly ran out of the way." The Boat Captain also reported that the Deckhand (IP) had pain in his back after quickly turning and running to get out of the way.

The Incident Report from W & T included a description of the incident that was written by the Crane Operator at the time of the incident. The Crane Operator documented that the Crane Pre-Use Inspections and JSA were completed prior to the start of crane operations. His description says that after he lowered the load block about one-quarter of the way down, the crane cable "got loose and landed on the very back of the boat". He described the wire rope falling to the boat deck, and the load block falling on top of the wire rope. The Crane Operator reported to have then seen the load block sheave flying upwards and falling back downwards to the back of the boat where it struck the top of a grocery box and landed on the deck.

The Crane Operator mentions in the report that the Deckhand (IP) was on the back deck of the boat but was not directly under the load and had time to move away before the load block hit the deck. The descent of the load block sheave was delayed, and the Crane Operator documented that he saw it fall in a "slightly different trajectory" and shouted a warning. The Deckhand was already running away from the back of the boat heading towards the front. The Crane Operator also reported that following the incident, the wire rope cable and load block that landed on the deck of the boat were able to be slowly "spooled up" just high enough to lift off the boat deck to release the boat from danger.

On Monday, May 12, 2025, BSEE Houma District Investigators were mobilized offshore to the ST-229 facility via helicopter to conduct an onsite IF Investigation into the crane incident reported by W & T on May 9, 2025. Upon arrival, BSEE met the contract Field Crane Mechanic who was present to assist in the inspections, provide technical insight into the possible modes of failure, and answer questions regarding maintenance history. BSEE conducted a comprehensive visual examination of the crane assembly, including the crane boom, main winch, wire rope, load block, anti-two block assembly and associated hydraulic plumbing, and rigging components. BSEE Investigators photographically documented all observable damage, crane component condition, and evidence of mechanical failure. BSEE noted that the crane(stenciled as ZZZ-9000)was flagged Out of Service (OOS), and the controls were locked out. BSEE's investigation of the crane components identified following: a sheave was found to be missing from the load block; the load block sheave's dowel pin had backed out and sheared; the dowel pin retainer ring was found dislodged; wire rope was not run through a sheave at the boom tip and was resting on the boom tip sheave dowel pin; fresh grease was visible at all serviceable points; and hydraulic plumbing associated with the anti-two block was found bent and pulled away from their fixtures.

BSEE Investigators conducted structured interviews with key personnel present during the event including the Crane Operator, Rigger, and Boat Captain. The accounts mostly mirrored information previously provided by the three in their written statements. However, some additional information was learned throughout the course of the interview process as the three individuals provided firsthand accounts of the sequence of events leading up to and immediately following the incident. BSEE Investigators were able to speak with the Crane Operator, Rigger, and Crane Mechanic positioned at the scene of the incident, which afforded an opportunity to visualize, sketch, and estimate the factors of the threat posed by the falling load block and associated rigging,

The Crane Operator told BSEE Investigators that the crane boom was facing due west at a 55-degree boom angle as he lowered the stinger down to the MV. When the load block had reached his eye level, one-quarter of the way down to the MV, he noticed the block "do a shake to it," jolting as the load block sheave began to wobble. The wire rope then began to fall onto the deck of the MV. The Crane Operator estimated that the Deckhand (IP) was standing approximately 20 feet away when the wire rope began to pay out and he began to run away. Just as the remainder of the slack of the wire rope passed through the middle sheave, it slung the load block sheave, spinning it upwards of 100 feet high in a fashion that the Crane Operator compared as "a flying saucer/UFO," and load block "lost stability and fell". He stated that the load block fell on top of the wire rope on the deck of the MV, and the ejected load block sheave eventually landed and struck the top of a grocery box located on the back deck of the MV before eventually coming to rest on the deck.

Following the incident, the Crane Operator told BSEE Investigators that he immediately looked for a parted cable but saw none. He then contacted the Boat Captain to ask if the boat could be held in position while he utilized the crane to lift the load block.

He identified that the cable was able to be "winched in" and began to slowly lift the load block from the aft deck of the MV. As the load block was lifted high enough to clear the bulwarks of the MV, the anti-two block triggered and disabled the "line-up" function of the winch. He then had the Boat Captain back the MV up so that he could safely boom the load block high enough off of the deck to allow the MV to move to safety and begin the evacuation. He stated that the load block was left hanging approximately 5 feet above the water and that the stinger and JSA were left submerged.

The Rigger told BSEE Investigators that he noticed nothing out of the ordinary as he placed the stinger on the hook of the load block just prior to the incident. The Rigger reported that as he was surveying the top deck of the facility for load planning purposes, he heard a "boom" and saw the load block on the deck of the boat. He specified that he did not "have eyes on the load block when it gave way" and never saw the load block sheave. The Rigger stated that just after he put his eyes on the load block, the wire rope began falling onto the deck of the MV. The Rigger also did not see the Deckhand but reported he heard the Boat Captain's attempts to get in touch with the Deckhand over the radio. After the incident, the Rigger locked out the controls on the crane and placed an OOS placard on the crane. W & T provided BSEE with the IP's contact information; however, BSEE's attempts to contact the IP by phone for interview were unsuccessful. Records provided to BSEE by W & T indicate that the IP was released to full duty on the afternoon of the incident date. However, GOL reported to BSEE that the IP, despite being cleared to return to work, had not reported back for duty and had not responded to repeated attempts to contact him. GOL and W & T classified the incident as a near-miss and First Aid Case. The IP remained unreachable throughout the duration of the BSEE Investigation with the last unsuccessful attempt to reach the IP by BSEE being on July 10, 2025. The Crane Mechanic reported to BSEE Investigators that when he arrived on May 10, 2025, the crane was locked down, the boom was facing over the water, the load block was hanging above the water, and the stinger was submerged. He mentioned that to utilize the winch to recover the load block and stinger back onto the top deck of the facility, he had to cap off the anti-two block controls. As he recovered the suspended load block, he was worried that they would lose another load block sheave. He described that while he was retrieving the load block, he watched to make sure the sheave pin did not walk out further, and his focus stayed on the shiny pin throughout the recovery operation. BSEE asked the Crane Mechanic to provide weight calculations of wire rope, load block, and load block sheave, as well as his final post-incident inspection report once completed. The Crane Mechanic described the event as an extremely rare mechanical failure, citing that sheave dowel pins are difficult to dislodge. The Crane Operator/PIC, Rigger, and Crane Mechanic assisted BSEE Investigators in the determination of the approximate height of the fallen load block and load block sheave and length of the wire rope. BSEE referenced the crane certification documentation in the crane file present at the facility to gather that the crane boom was 70 feet long.

The Crane Mechanic assisted in the determination that approximately 135 feet wire rope fell onto the back deck of the MV and the load block fell approximately 65 feet. W & T provided BSEE with Dropped Object Consequence Calculator reports that evaluated the potential severity of the incident. These reports determined that the load block (1,235 lbs.), wire rope (78.3 lbs.), and sheave (32 lbs.) all possessed fatal potential, with respective calculated impact energies of 226,047.59 joules, 14,331.60 joules, and 5,857.10 joules. During the interview process, BSEE Investigators asked both the Crane Operator and Rigger questions regarding common safe work practices related to offshore crane operations. BSEE Investigators included competency-based questions including how Crane Pre-Use Inspections are completed. The Crane Operator and Rigger were also asked questions related to typical crane usage frequency and maintenance history. Both the Crane Operator and Rigger answered questions that focused around one seemingly common safe work practice of crane operations in offshore waters: when lowering loads to a MV, lower loads to their lowest and safest height above the water and just high enough to clear any obstructions before swinging the load from above the water to its desired destination on the back deck of the MV. The Crane Operator and Rigger stated that they always follow this safe work practice while transferring loads. They acknowledged that the practice minimizes potential severity before proceeding to swing a load over a MV and agreed that the Load Block should never have existed 65 feet above the deck of the boat. However, the Crane Operator admitted he had never considered this practice when simply lowering a JSA to the MV for review. BSEE completed an onsite review of all records associated with the crane including inspection, usage, and maintenance history. BSEE noted no irregularities or reasons for concern during the evaluation of the history of the crane. BSEE Investigators inquired about inspection procedures related to load blocks and whether lubrication of the load block dowel pins was included in the annual crane maintenance.

The Crane Mechanic initially referenced a visual-only inspection but reached out to both the crane contractor and W & T for clarification. It was confirmed that lubrication is required during annual, quarterly, and monthly inspections, as noted in Section III of the the crane contractor's Primary Inspection Checklist. In response to this incident, the crane contractor revised their Block and Hook Inspection Form to explicitly require verification of "lubrication points serviced." Following the completion of the onsite investigation, BSEE confirmed that the load block, ejected sheave, and spiral retainer were removed from service and shipped by W & T to the crane contractor's maintenance facility for an inspection and RCA of failure. This analysis was intended to identify potential material, mechanical, or procedural deficiencies that may have contributed to the incident. The full compliment of documents and additional information requested by BSEE were provided by W & T by August 7, 2025. These documents included but were not limited to the following: Load Block Certs; W & T and the crane contractor Assessments and Final Investigation Reports; W & T and the crane contractor Safety Alert; Dropped Objects Calculations; Corrective Actions; Cost of Damages; IP Medical Clearance; and Final Update on the IP. These documents were submitted by W & T into the BSEE eWell Incident Reporting System.

W & T and crane contractor Investigation:

W & T and the crane contractor initiated an internal investigation in parallel with BSEE's. Following the BSEE IF Investigation on May 12, 2025, the load block, ejected sheave, and the spiral retainer were shipped to the crane contractor maintenance facility for an inspection and RCA of the failure. The load block was bench-inspected and disassembled to evaluate internal components.

The W & T/crane contractor inspection and RCA revealed that this incident was "set into motion by inadequate lubrication of the main block sheave bearings". Debris buildup discovered in the internal lubrication passage between the 90-degree transition and the passage outlet, prevented grease lubricant from reaching the pin and bearing, leading to failure of one of the three sheave bearings. The dowel that prevented sheave pin rotation sheared due to excessive rotational force, allowing the pin and its spiral retainers to rotate freely within the frame. Friction against the retainer faces caused them to unwind and dislodge from the pin's machined grooves, allowing the sheave pin to migrate from its seated position and work its way out of the block.

The W & T/crane contractor investigation sought to determine whether failure of the load block could have been prevented by detection of early indicators of load block degradation. W & T/crane contractor indicated in their reports that early indicators include increased grease pump resistance, bearing binding, side shifting, popping, or block rocking. It was considered by W & T/crane contractor that given the crane's limited operational use approximately two hours total per month), it was possible crane operators may have not observed noticeable warning signs. However, it was concluded that because the internal lubrication passages were found obstructed beyond the visible and serviceable points, the restriction could not have been identified without full disassembly.

The presence of fresh grease found during both the BSEE IF Investigation and the teardown of the load block at the crane contractor maintenance facility confirmed that standard greasing procedures were performed properly prior to the incident. The crane contractor reported that while sheave bearing failures have occurred for various reasons in the past, this specific type of failure involving a sheared dowel and dislodged retainers is a rare event not previously encountered by their organization. These key findings prompted W & T and the crane contractor to integrate a variety of corrective actions to prevent future recurrence. Following the conclusion of the RCA, the crane contractor issued an internal, company-wide safety alert outlining the incident, new inspection requirements, and early detection indicators for bearing or pin failure. The crane contractor's technicians were required to acknowledge receipt of the alert. The crane contractor emphasized the importance of thorough Crane Pre-Use Inspections by crane operators, including visual checks of all load block pins, retainers, and hardware.

The crane contractor revised its Primary Inspection Checklist and Block and Hook Inspection Form to explicitly require verification of "lubrication points serviced" and incorporate more detailed evaluations of critical load block components, including specification of retainer types, sheave pins, snap rings, and lubrication functionality. The crane contractor decided to begin implementation of adding photographic documentation during annual inspections to enhance oversight.

The crane contractor also reported that as part of enhanced maintenance protocols, their Technicians are now required to flush and verify all lubrication pathways during servicing, with any irregular grease pressure or incomplete return flow prompting additional internal inspections.

W & T and the crane contractor both published internal safety alerts that echoed the same message: moving forward, all crane operators should remain alert to visual, audible, or tactile warning signs such as strange noises, load block tilting or rocking, unusual wire rope slack or tension, or jerky behavior. They reported that future protocol dictates that if any abnormalities are detected, the crane must be removed from service until a qualified inspection and repairs are completed.

BSEE Conclusion:

Based on the findings of the investigation, BSEE concludes that the root cause of the incident was the failure of a sheave bearing within the crane load block assembly, which resulted from inadequate lubrication due to an internal debris restriction within the sheave pin's lubrication passage. The resulting bearing failure generated excessive rotational force that sheared the dowel pin, allowing the sheave pin and its retainers to rotate freely and ultimately dislodge from the block. The corrective and preventive actions implemented by W & T and the crane contractor, including the revision of inspection forms, enhancement of maintenance procedures, and increased training are all actions that are appropriate and consistent with BSEE's expectations for mitigating recurrence of similar mechanical failures.

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

- 1) Equipment Failure - Inadequate lubrication to component (internal obstruction)- An internal debris restriction in the sheave pin's lubrication passage prevented grease from reaching the sheave bearings. One of the three sheave bearings failed, initiating the mechanical failure sequence.
- 2) Equipment Failure - Component failure (bearing)- The lubrication starved sheave bearing failed and imposed abnormal rotational loads on the assembly, which directly

precipitated loss of line tension and destabilization of the load block.

3) Equipment Failure - Component failure (sheared dowel pin- anti-rotation/safeguard feature)- The excessive rotational force sheared the dowel designed to prevent sheave pin rotation. With the dowel compromised, the pin and spiral retainers rotated; friction unwound a retainer and dislodged from its groove, the pin backed out, leading to ejection of a sheave.

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

1) Human Performance Error - Inattention to task / Not aware of hazards- Operators did not recognize or act upon potential audible, visual, or tactile distress indicators (e.g., block rocking, grinding/popping, reduced wire-rope tension) that should have triggered an immediate out-of-service action and inspection. Section 17 notes these indicators and the expectation to remove the crane from service if observed.

2) Personnel Training: Personnel not trained on equipment used or system operated (awareness depth)- The investigation identified the need to strengthen operator awareness of early mechanical distress signs and responses (later addressed via safety alerts and training). This gap contributed somewhat to the event by reducing the likelihood of early detection and intervention

3) Management Systems: Inadequate documentation/procedural specificity- Prior to post-incident revisions, inspection/maintenance documentation did not explicitly require verification of internal lubrication flow paths or detailed retainer condition checks, which reduced the chance of discovering internal degradation short of disassembly.

4) Management Systems - Inadequate hazard analysis- Unsafe Work Practice increasing consequence severity- Maintaining the load block at approximately 65 ft over the MV during positioning increased potential consequences once failure occurred. Even though it did not cause the mechanical failure, the injury could have been prevented by an adequate hazard analysis that identified the hazard of the suspended load at height and mitigation of lowering the load to its safest and lowest point before swinging over the boat. This inadequacy led to an injury.

20. LIST THE ADDITIONAL INFORMATION:

n/a

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Load block refurbishment (\$7,290.00), replacement wire rope (\$5,421.00), replacement components (wedge, socket, links, slings - \$2,353.45), crane technician labor (\$3,717.00), and deck repair costs (\$400.00), totaling \$19,159.45.

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECCURANCE NARRATIVE:

The BSEE Houma District recommends the Office of Incident Investigations issue a Safety Alert.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

n/a

25. DATE OF ONSITE INVESTIGATION:

12-MAY-2025

26. Investigation Team Members/Panel Members: 29. ACCIDENT INVESTIGATION PANEL FORMED: **For Public Release**

NO

OCS REPORT:

27. OPERATOR REPORT ON FILE: **NO**

30. DISTRICT SUPERVISOR:

28. ACCIDENT CLASSIFICATION:

APPROVED **Amy Gresham**
DATE: **06-NOV-2025**