

GOMR Incident Trends

Jason P. Mathews

Chief, Office of Safety Management
Gulf of Mexico Region

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"To promote safety, protect the environment and conserve resources offshore through vigorous regulatory oversight and enforcement."



Overview

Latest Industry Trends Through 2021Q4

Updates on Injuries, Fires, and Lifting Analysis

Recommendations & Path Forward



Recently Released Safety Alert – No. 428

- Confirm the weight limitation of the FIBC
- Ensure FIBCs are kept out of the cold weather (< 32 deg F) when not in use
- Generate an inspection protocol and remove the FIBC from service before lifting if any degradation is observed
- Emphasize during safety meetings before the job that the force applied to each FIBC strap is equally distributed to prevent overloading
- Confirm the contents in the FIBC are compatible with all FIBC components before offloading to and from the facility

SAFETY ALERT



Safety Alert No. 428
February 17, 2022

Contact: bseepublicaffairs@bsee.gov
Phone: (800) 200-4853

Flexible Intermediate Bulk Container (FIBC) Parted Straps Result In Near Misses



Figure 1. FIBC Load travel Path from the Cargo Basket to the Drop Zone 17 Feet Away



Figure 2. Broken FIBC Strap

In the latter part of Calendar Year 2021, numerous incidents occurred in the Gulf of Mexico involving the failure of FIBC¹ straps during lifting operations. The incident details include the following:

- September 2021: An FIBC containing blasting operations material was lifted out of a cargo basket by the platform crane using its pre-manufactured straps. Upon moving the load out and away from the cargo basket, one of the straps failed (Figure 2), transferring the weight of the load to the other strap, which subsequently failed due to exceeding its load capacity. The FIBC dropped 5 feet onto the deck grating below (Figure 1).
- September 2021: While a forklift was lifting an FIBC containing lost circulation material for drilling operations, tension on the FIBC straps caused two of the four straps to part. The FIBC was not dropped from an



Upcoming Safety Alerts

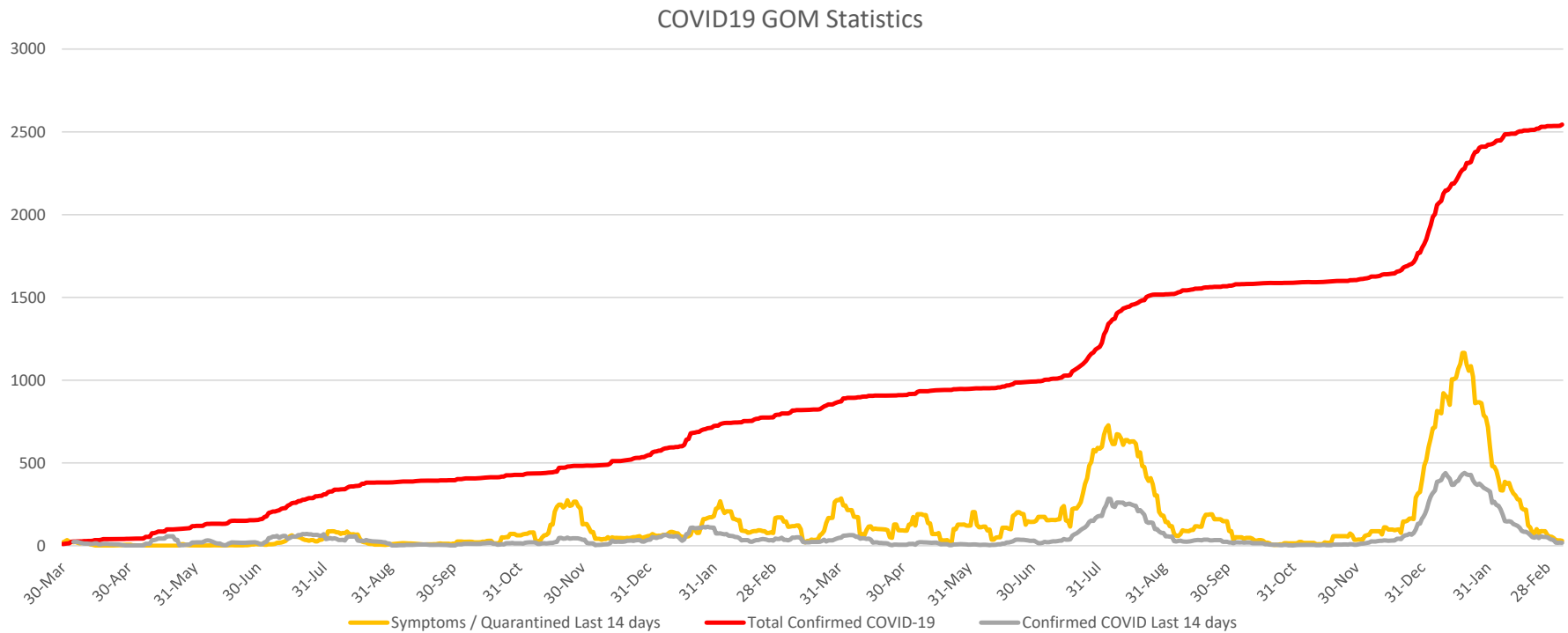
- Breakdowns in Communication and Preparation Lead to Synthetic Slings Failure
- Unclassified Fan In Use In Classified Area During Coiled Tubing Operation
- Barricades and Fall Protection Will Help Prevent injuries Even Without Open Holes Visible
- Arc Flash Injury During Generator Hookup
- Crane Anti-Two Block Weight Pulled into Boom Tip Causing Damages to Aux Cable and Sheave



Don't Look Back – You're Not Going That Way

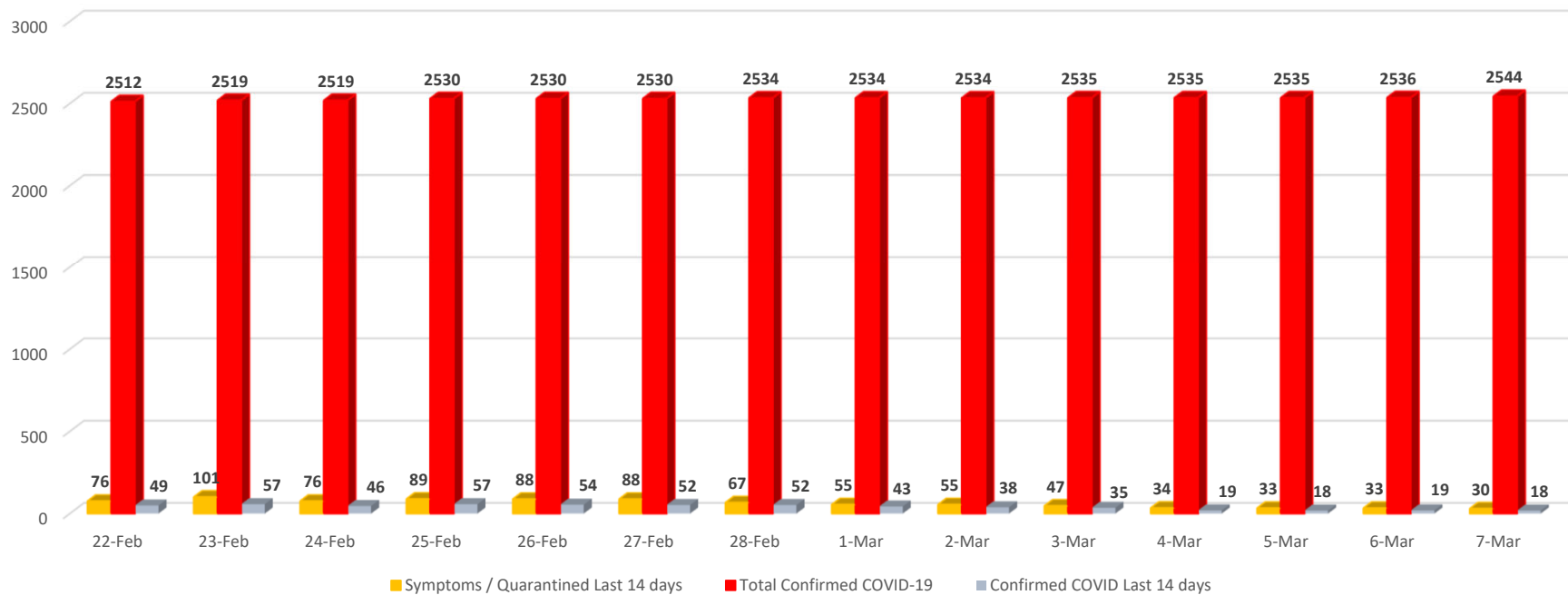


Latest COVID-19 Statistics – 3/7/22

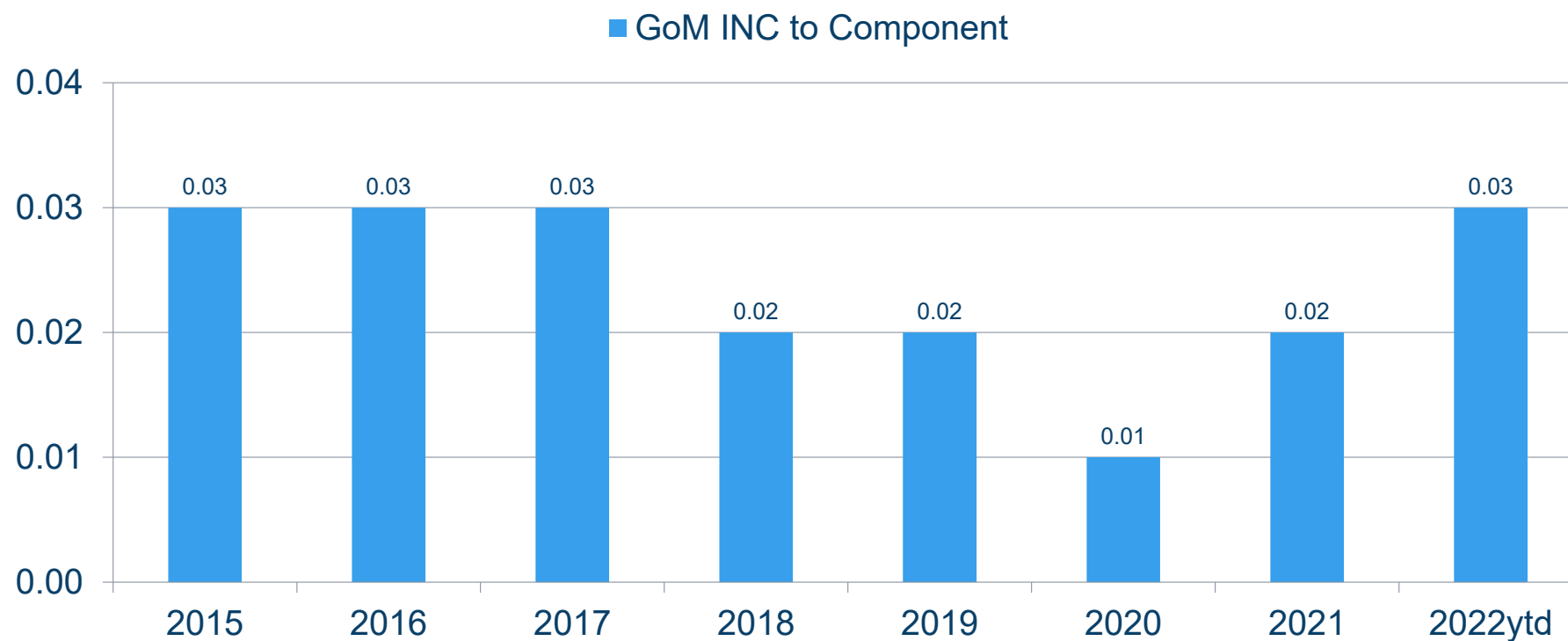


Latest COVID-19 Statistics – 3/7/22

COVID19 GOM Statistics - Last 14 Days



Historical INC-to-Component Ratio - GOM



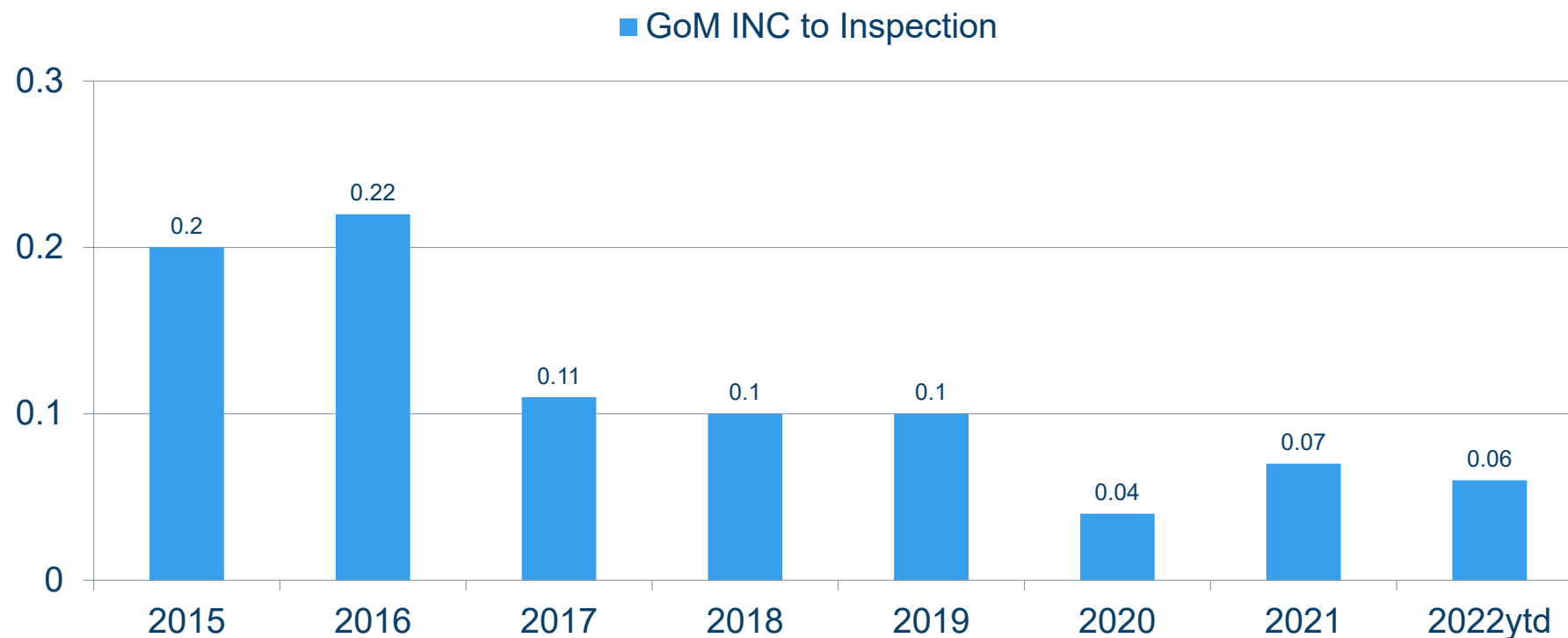
2021 INC-to-Component Ratio - GOM

Gulf of Mexico Region

Total Component Shut-ins:	516
Total Facility Shut-ins:	32
Total Warnings:	887
Total INCs Issued:	1436
Total Components Inspected:	71048
INC/Component Ratio:	0.02

Below are GOM totals for Shelf Production Assets	
Total Component Shut-Ins	506
Total Facility Shut-Ins	31
Total Warnings	874
Total INCs Issued	1,411
Total Components Inspected	58,684
INC / Component Ratio	0.024
Below are GOM totals for Deepwater Production Assets	
Total Component Shut-Ins	10
Total Facility Shut-Ins	1
Total Warnings	13
Total INCs Issued	24
Total Components Inspected	12,364
INC / Component Ratio	0.002
Below are the GOM Weighted totals for all Production Assets	
Weighted Component Shut-Ins (x2)	1,032
Weighted Facility Shut-Ins (x4)	128
Weighted Warnings (x1)	887
INCs Flagged for Civil Penalty (x8)	760
Weighted Total	2,807
Weighted INC / Component Ratio	0.04

Historical INC-to-Inspection Ratio - GOM



2021 INC-to-Inspection Ratio - GOM

CY2021 GOM Averages for all Well Operations		CY2021 GOM Weighted Averages for all Well Operations					
Total Component Shut-Ins	18	Weighted Component Shut-Ins (x2)	36				
Total Facility Shut-Ins	8	Weighted Facility Shut-Ins (x4)	32				
Total Warnings	20	Weighted Warnings (x1)	20				
Total INCs Issued	46	INCs Flagged for Civil Penalty (x8)	96				
Total Rig Inspections	635	Weighted Total	184				
INC/Rig Inspections Ratio	0.072	Weighted INC/Inspection Ratio	0.290				
GOM Totals for Non-Rig Units		GOM Totals for Platform Rigs		GOM Totals for Jackups		GOM Totals for All Other MODUs (e.g., Drillships)	
Total Component Shut-Ins	7	Total Component Shut-Ins	0	Total Component Shut-Ins	1	Total Component Shut-Ins	10
Total Facility Shut-Ins	0	Total Facility Shut-Ins	2	Total Facility Shut-Ins	1	Total Facility Shut-Ins	5
Total Warnings	5	Total Warnings	5	Total Warnings	3	Total Warnings	7
Total INCs Issued	12	Total INCs Issued	7	Total INCs Issued	5	Total INCs Issued	22
Total Rig Inspections	252	Total Rig Inspections	112	Total Rig Inspections	44	Total Rig Inspections	227
INC/Rig Inspections Ratio	0.048	INC/Rig Inspections Ratio	0.063	INC/Rig Inspections Ratio	0.114	INC/Rig Inspections Ratio	0.097
Weighted INC/Rig Inspections Ratio	0.075	Weighted INC/Rig Inspections Ratio	0.116	Weighted INC/Rig Inspections Ratio	0.205	Weighted INC/Rig Inspections Ratio	0.207

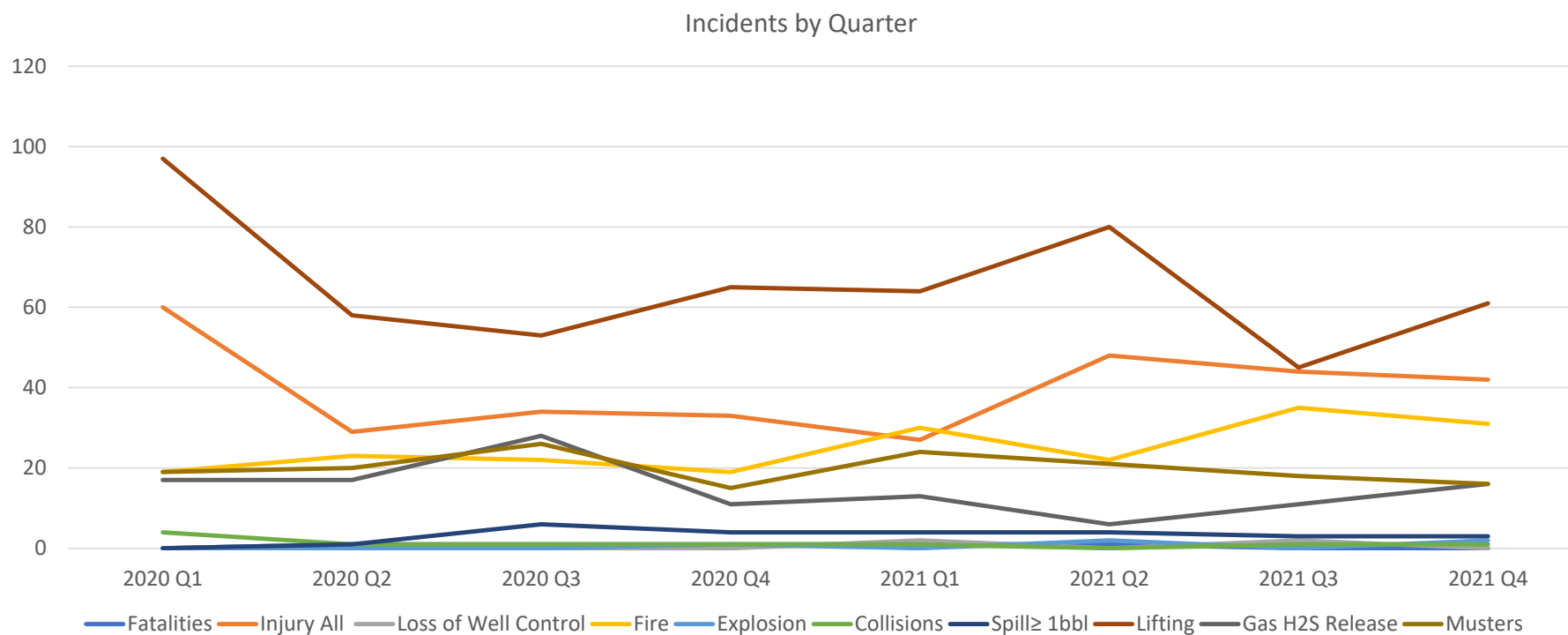
Most Common 2021 INCs – Top 10 GOM

INC #	PINC Description
G111	DOES THE LESSEE MAINTAIN ALL EQUIPMENT IN A SAFE CONDITION TO PROVIDE FOR THE PROTECTION OF THE LEASE AND ASSOCIATED FACILITIES?
P414	IS THE OPERATOR MONITORING CASING PRESSURE FOR EACH WELL ACCORDING TO THE FOLLOWING TABLE?
L141	ARE PIPELINES OUT OF SERVICE FOR MORE THAN 1 YEAR (365 CALENDAR DAYS), AND LESS THAN 5 YEARS (1,825 CALENDAR DAYS), FLUSHED AND FILLED WITH INHIBITED SEAWATER?
P280	IS EACH SURFACE-CONTROLLED SSSV INSTALLED IN A WELL TESTED WHEN INSTALLED OR REINSTALLED AND AT INTERVALS NOT EXCEEDING 6 MONTHS AND REMOVED, REPAIRED AND REINSTALLED, OR REPLACED, IF IT DOES NOT OPERATE PROPERLY?
P283	IS EACH TUBING PLUG INSTALLED IN A WELL TESTED FOR LEAKAGE AT INTERVALS NOT EXCEEDING 6 MONTHS AND REMOVED, REPAIRED AND REINSTALLED, OR REPLACED, IF IT LEAKS?

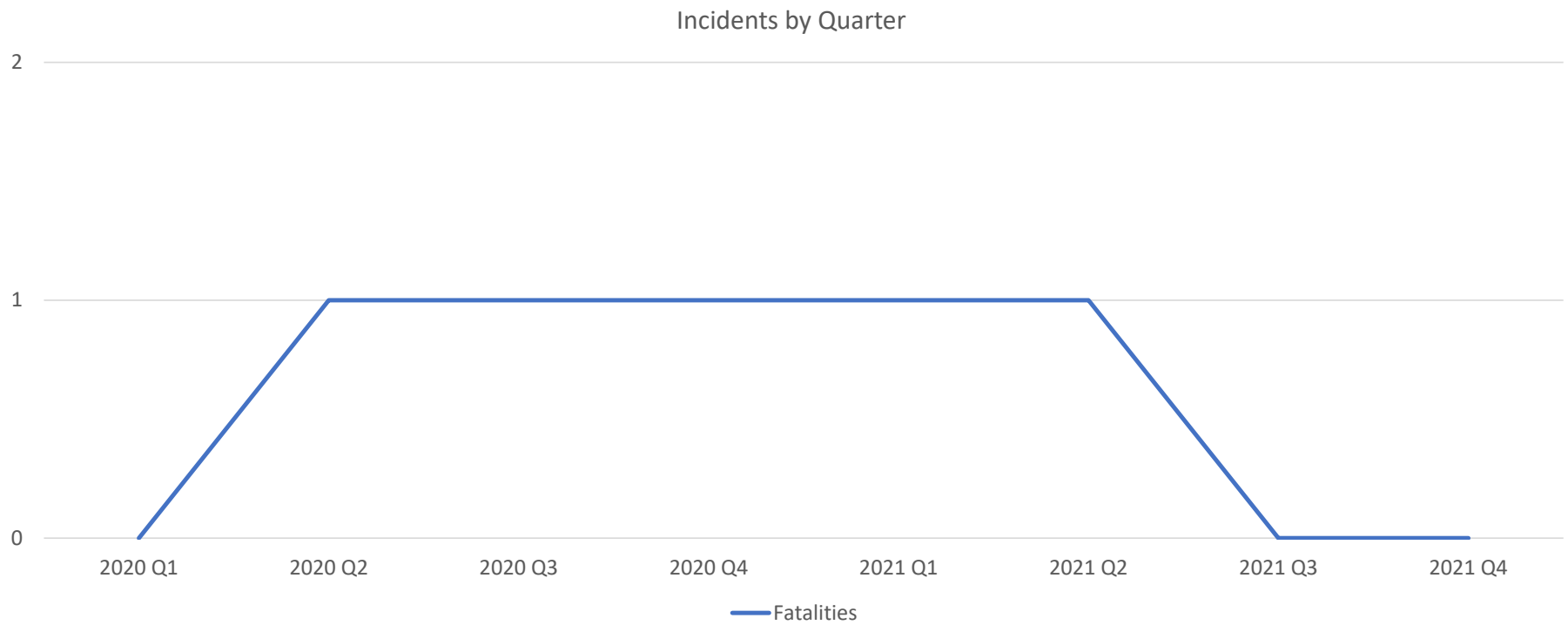
Most Common 2021 INCs – Top 10 GOM

INC #	PINC Description
G112	DOES THE LESSEE PROVIDE FOR THE SAFETY OF ALL PERSONNEL AND TAKE ALL NECESSARY PRECAUTIONS TO CORRECT AND REMOVE ANY HAZARDOUS OIL AND GAS ACCUMULATION OR OTHER HEALTH, SAFETY, OR FIRE HAZARDS?
G110	DOES THE LESSEE PERFORM ALL OPERATIONS IN A SAFE AND WORKMANLIKE MANNER AND PROVIDE FOR THE PRESERVATION AND CONSERVATION OF PROPERTY AND THE ENVIRONMENT?
G113	DOES THE LESSEE MAKE ALL FACILITIES, LANDING SITES, REFUELING STATION, AND RECORDS AVAILABLE FOR INSPECTION AND USE BY BSEE PERSONNEL?
P416	DID THE OPERATOR REPEAT CASING DIAGNOSTIC TESTING WHEN REQUIRED?
Z120	DOES THE OCS PLATFORM HAVE THE REQUIRED NUMBER OF OPERATIONAL OBSTRUCTION LIGHTS AND FOG HORNS?

OCS Industry Rates by Rolling Quarter



OCS Fatality Trend



OCS Fatality Panel Reports Published



INVESTIGATION OF MAY 16, 2020 FATALITY

LEASE OCS-G05800, EWING BANK
BLOCK 826 PLATFORM "A"

GULF OF MEXICO REGION, HOUMA DISTRICT

Off Louisiana Coast

January 10, 2022

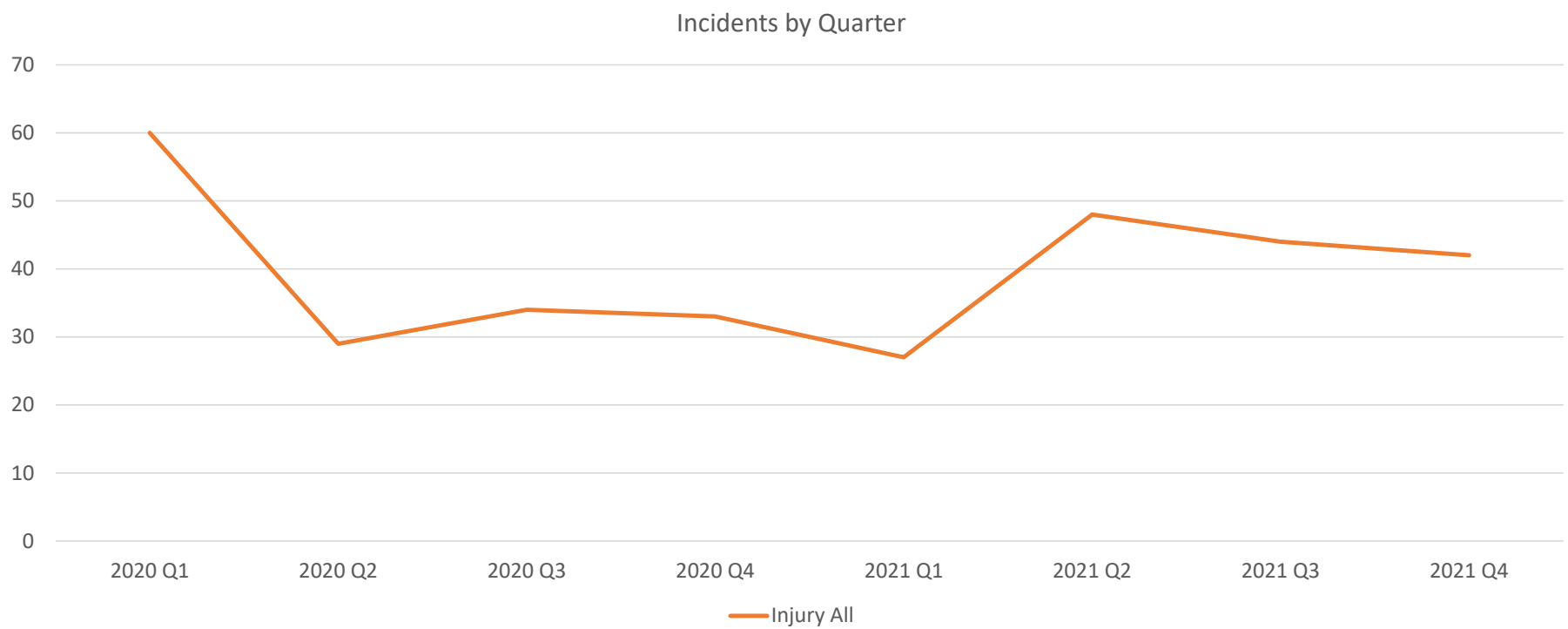


Investigation of December 2, 2020 Fatality, Lease OCS-P 216, Pacific Region, Los Angeles Block 6862

January 10, 2021



OCS Injury Trend



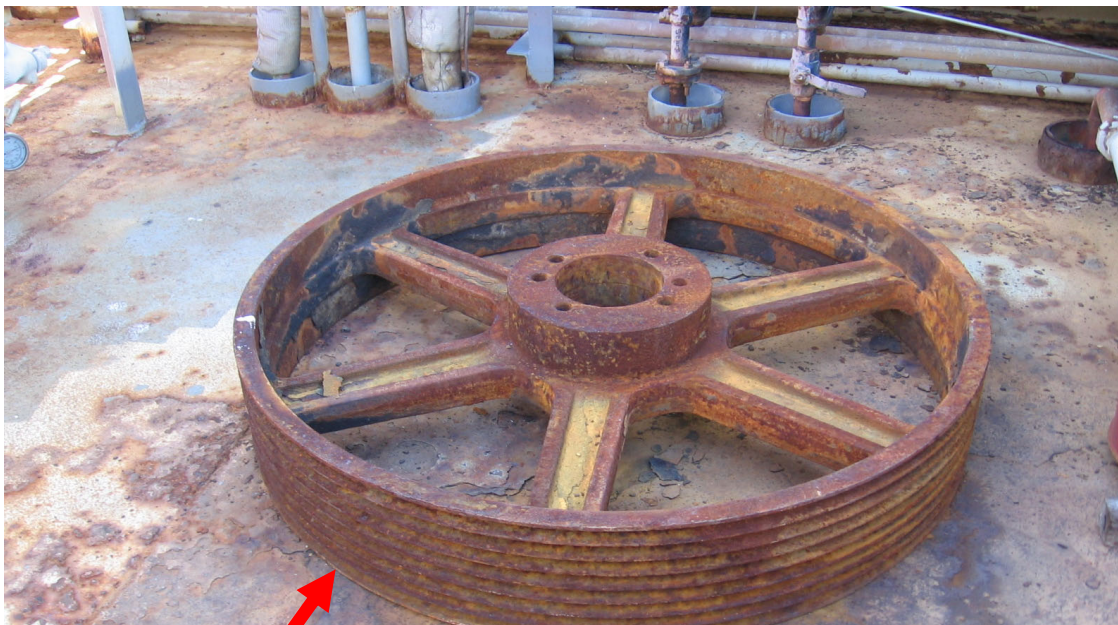
OCS Incident Rates – Injuries

Most Common Causal Factors in 2021

- Human Engineering – Work Environment
- Procedures Not Used / Followed
- Work Direction – Supervision
- Work Direction – Preparation
- Management System (Standards, Policies, Controls) Needs Improvement
- Human Engineering – Human Machine Interface



OCS Incident Rates – Injuries, LTA >3 Days 12/9/21



Location of employees left foot



Strap used to move pulley.

OCS Incident Rates – Injuries, LTA 1-3 days, 11/6/21



OCS Incident Rates – Injuries, “Other Injury”, 12/7/21



OCS Incident Rates – Injuries, LTA >3 days, 1/23/22

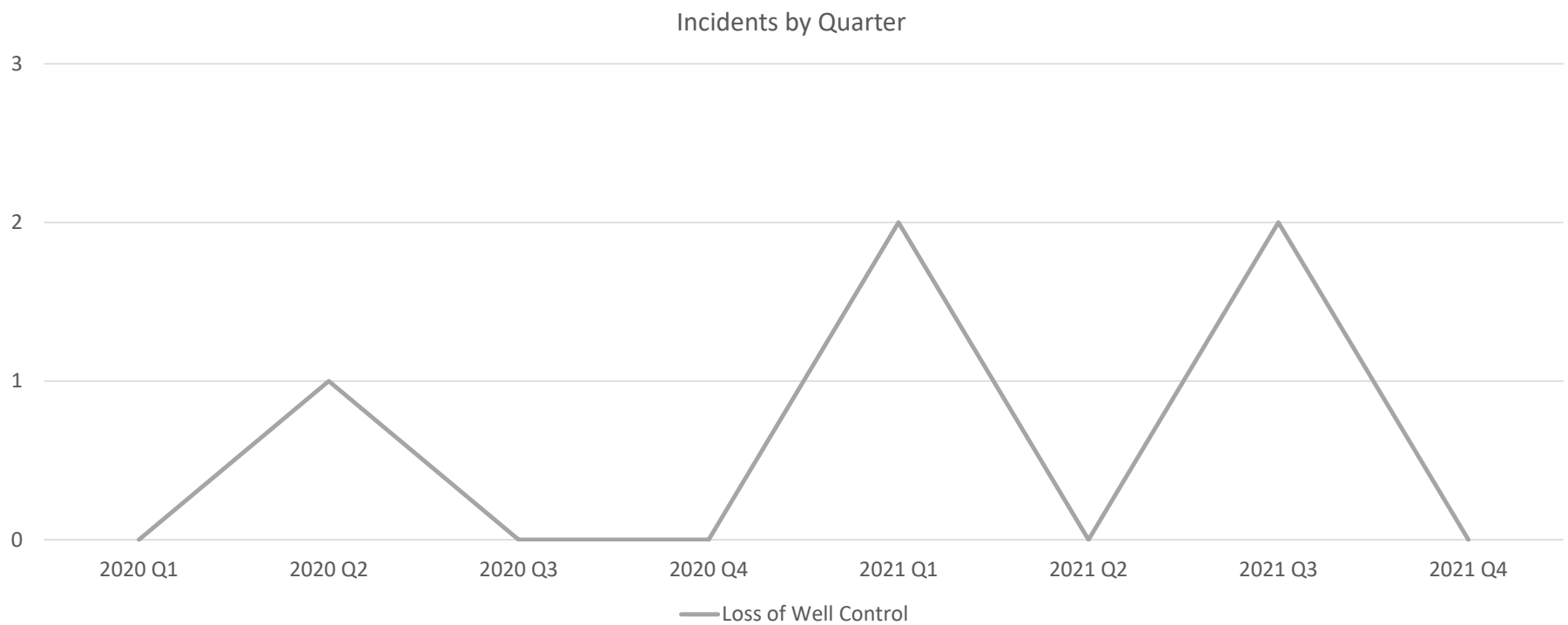


Q4 Injury Recommendations

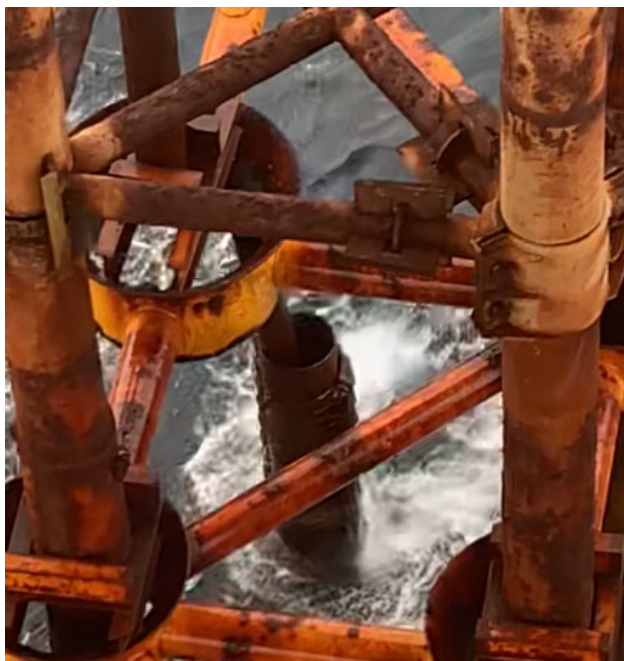
- Review performance expectations with offshore leadership
 - Reinforce requirements associated with JSAs, PTW, and SWA
- Operators review § 250.190(a)(8) and provide 15-day reports that include description of incident, damage, or injury (including days away from work, restricted work or job transfer), and any corrective action taken
- Emphasis to employees on line-of-fire and body placement



OCS Loss of Well Control Trend



Recent Well Integrity Concerns

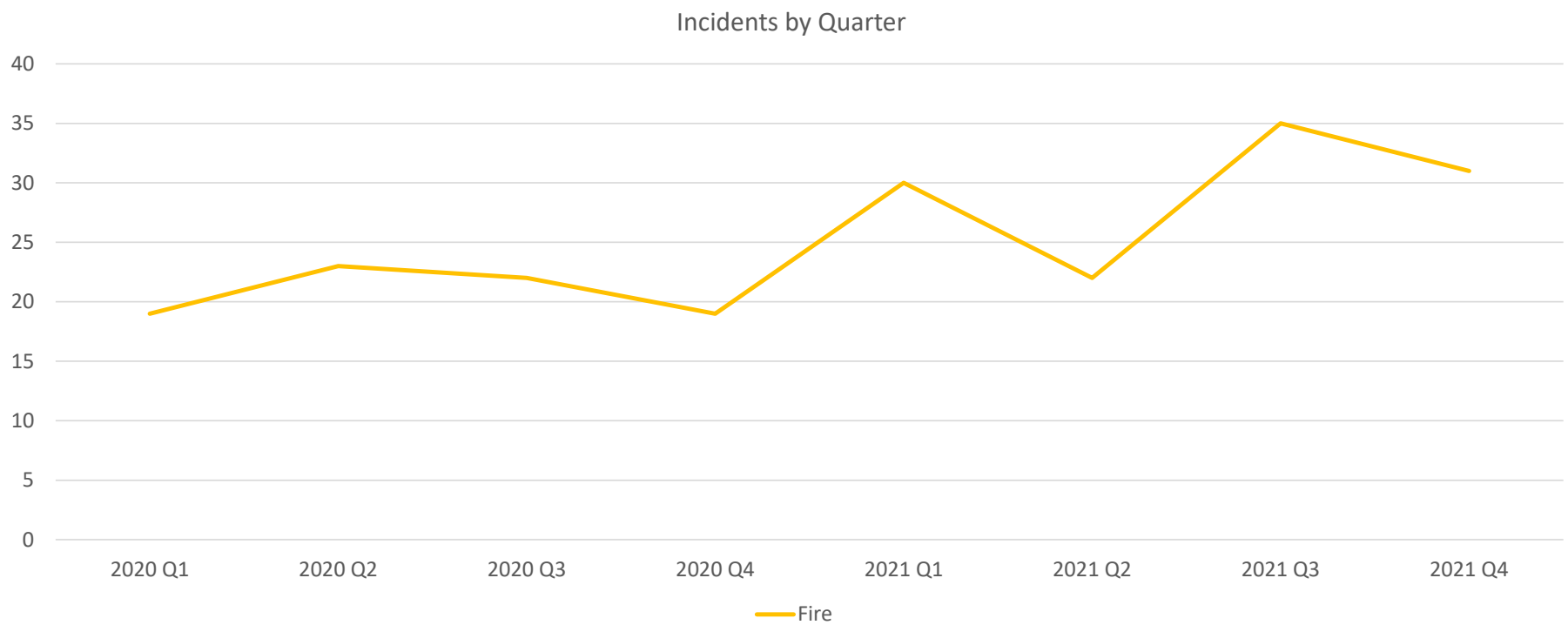


Recent Well Integrity Concerns



- Non-Idle Iron Platform
- Active production up to Hurricane Ida
- Facility is on IOL

OCS Fire Trend



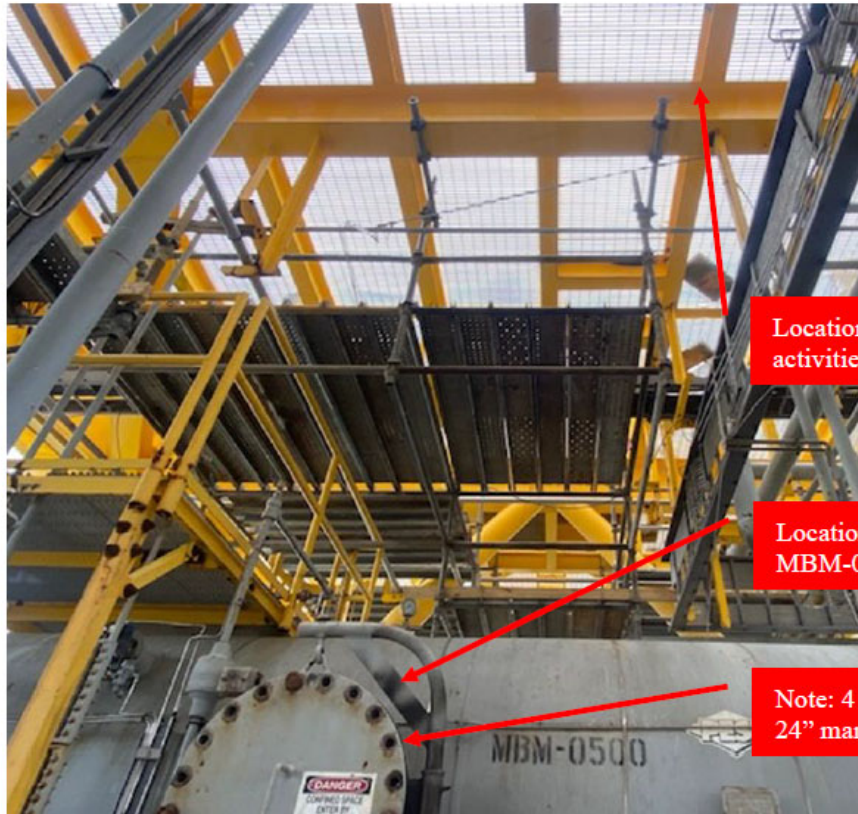
OCS Incident Rates – Fires

Most Common Causal Factors in 2021

- Equipment Failure
- Human Error
- Procedure Not Used / Followed
- Inadequate Maintenance



OCS Incident Rates – Fire, 11/27/21



Location of hot work activities at time of incident

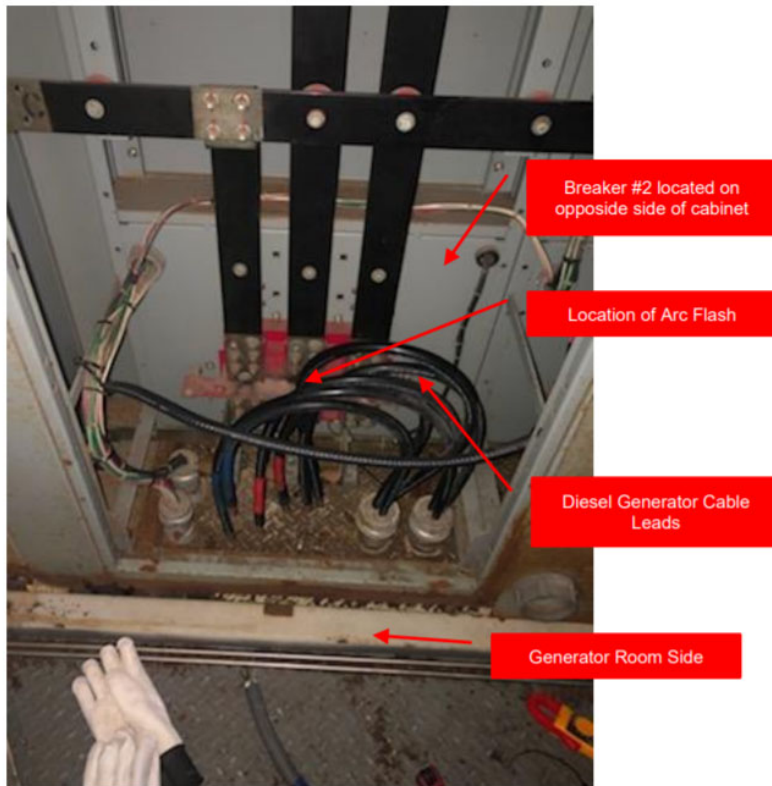
Location of fire at MBM-0500 manway

Note: 4 bolt securements of 24" manway



Evidence of fire and charring on manway arm support

HiPo – Electrical Arc, Other Injury, 12/14/21

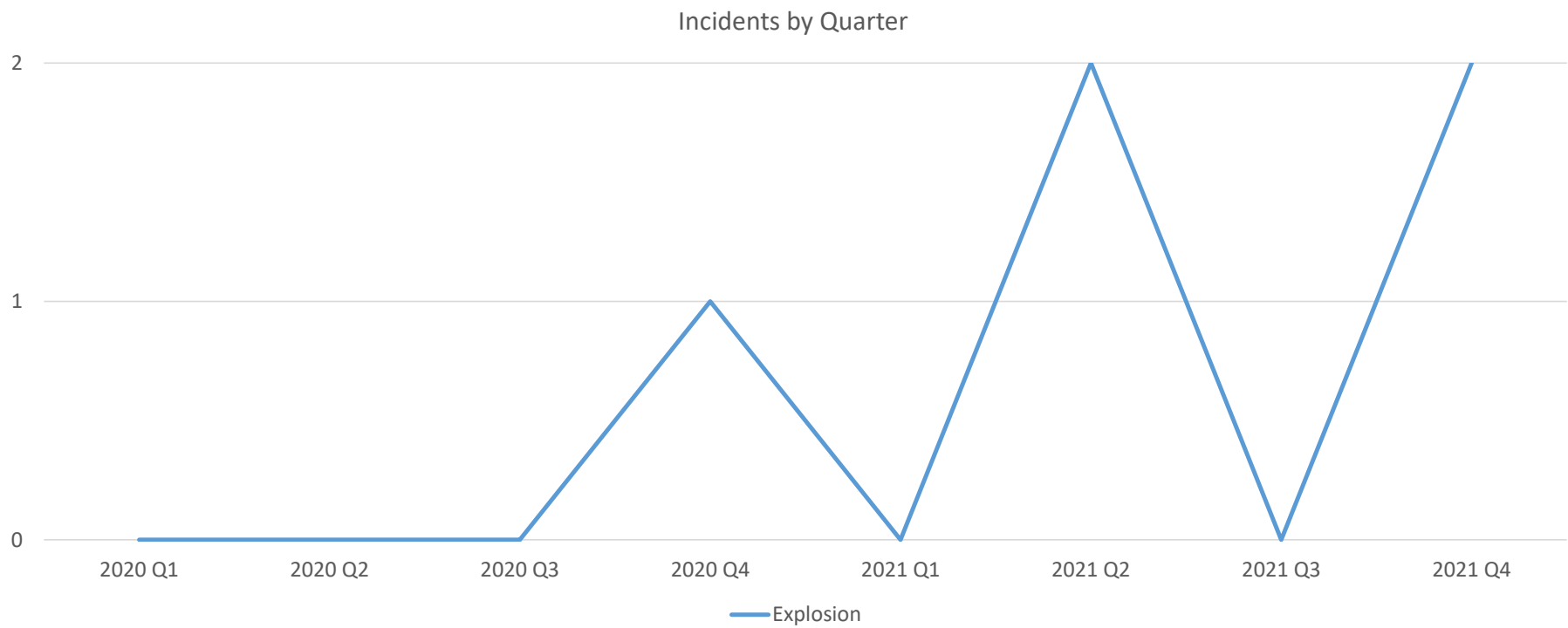


Location of Generator Cable Tie In



Generator Electrical Tie In Location

OCS Explosion Trend

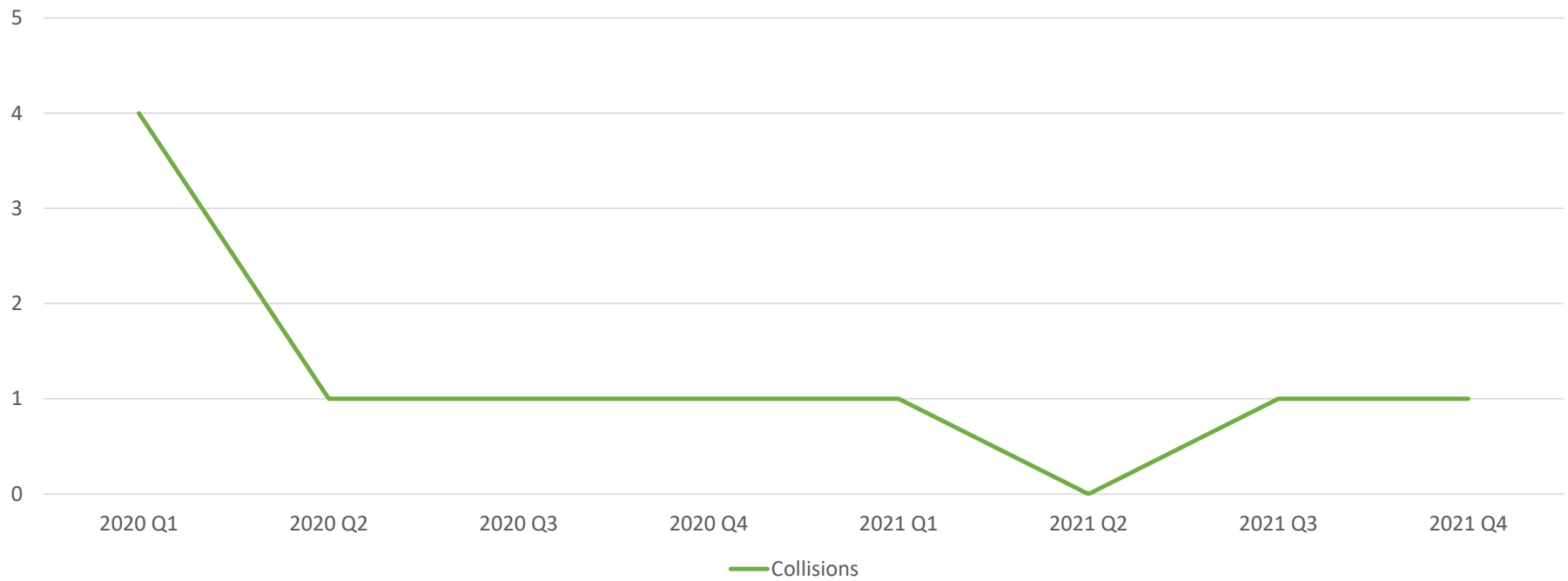


OCS Incident Rates – Explosion / Rupture, 10/9/21

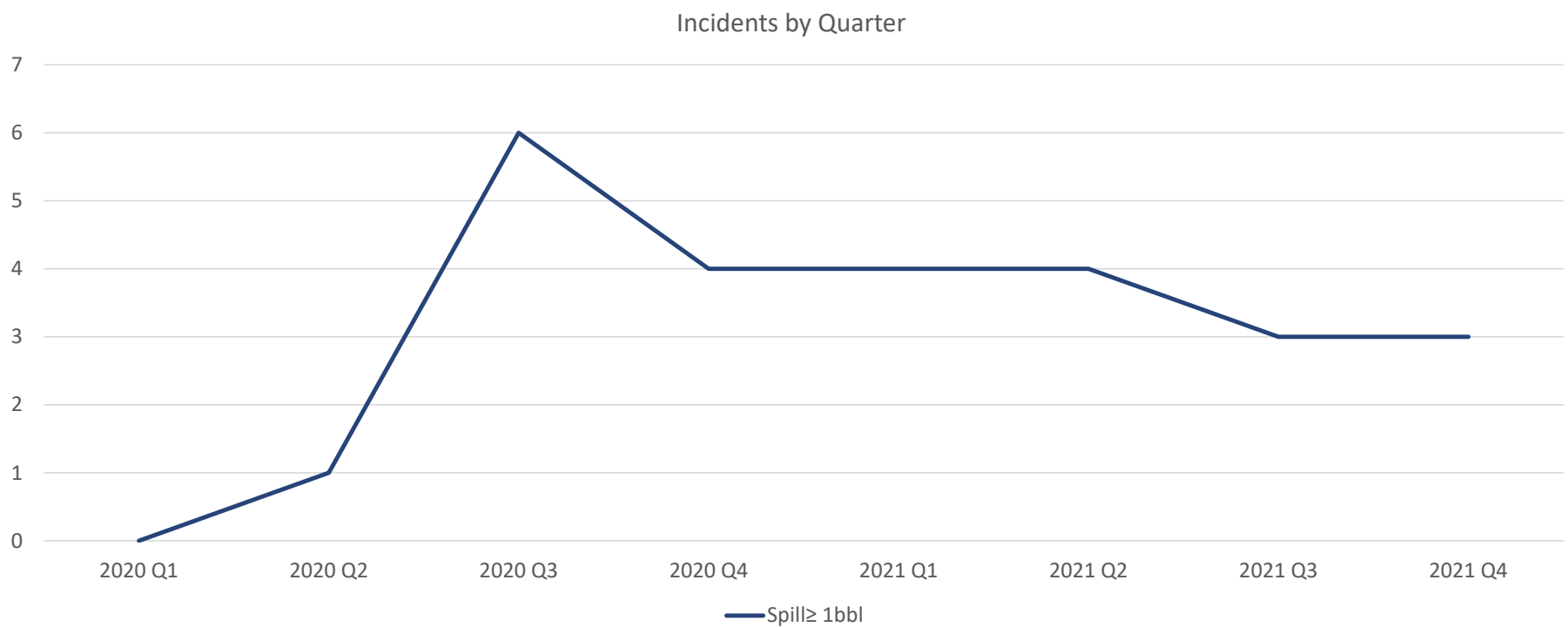


OCS Collision Trend

Incidents by Quarter

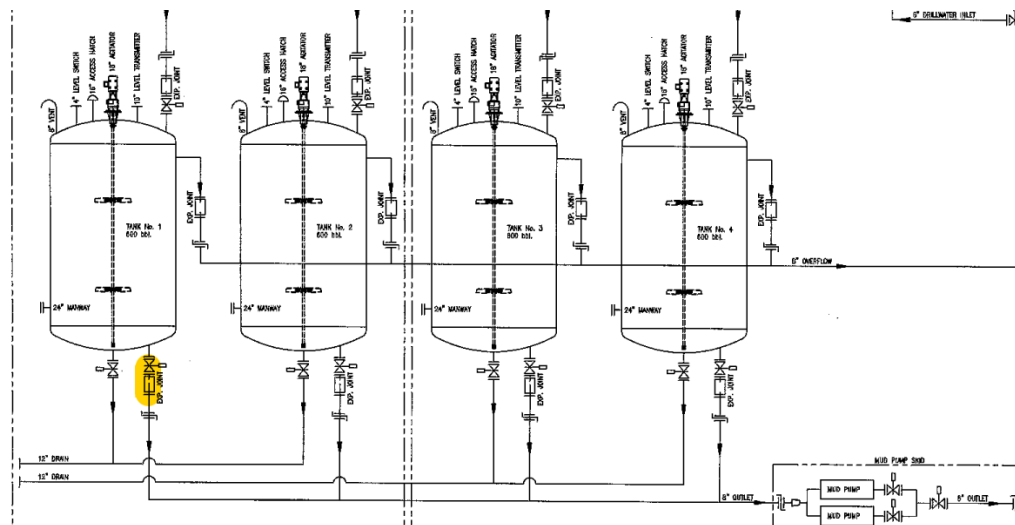


OCS Spills > 1 bbl Trend





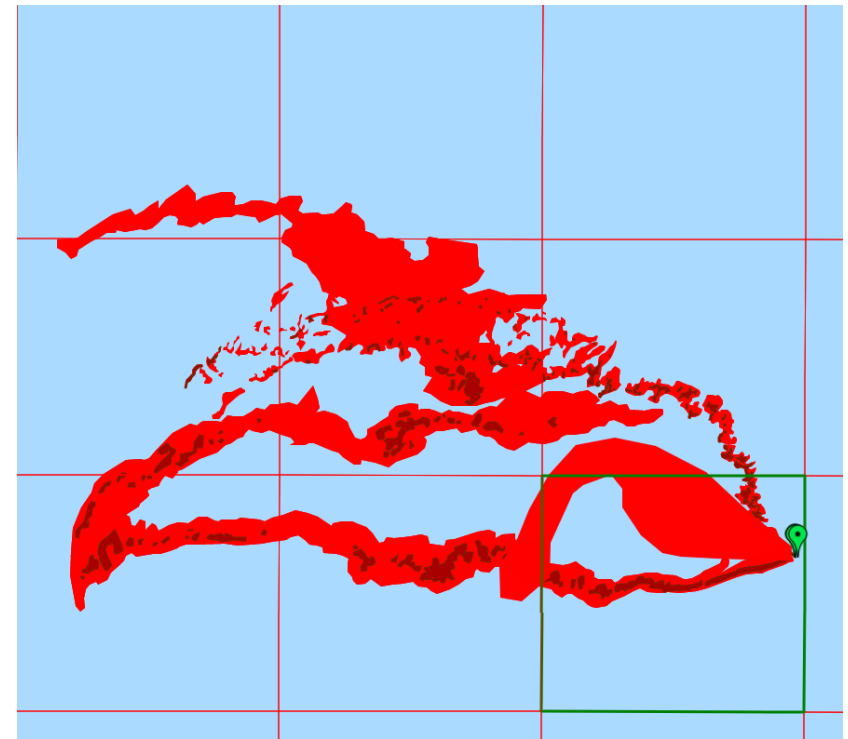
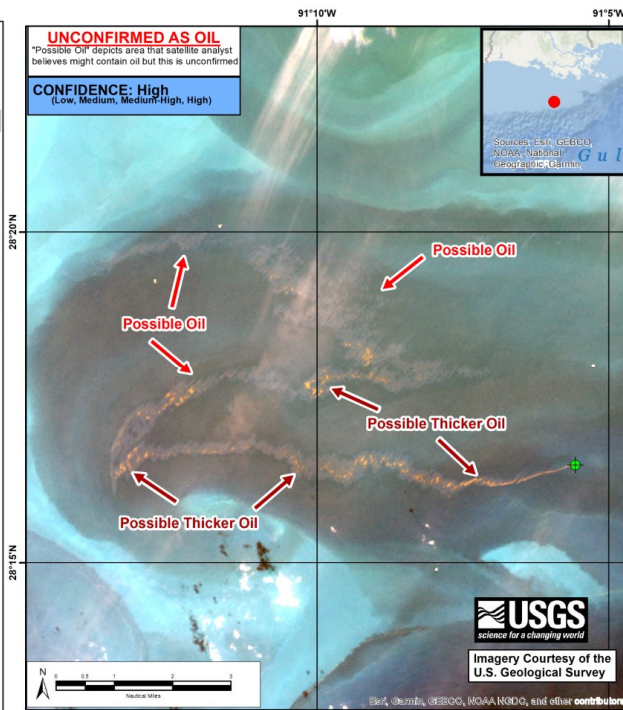
OCS Incident Rates – Pollution, 10/29/21

Worker's Claims	<p>24. Worker's Description of Alleged Incident, Worker states:</p> <p>While Rolling wax tanks I forgot to close a valve on the tank and ended up over filling the tank and it went into the over flow line and into the drilling pump</p>
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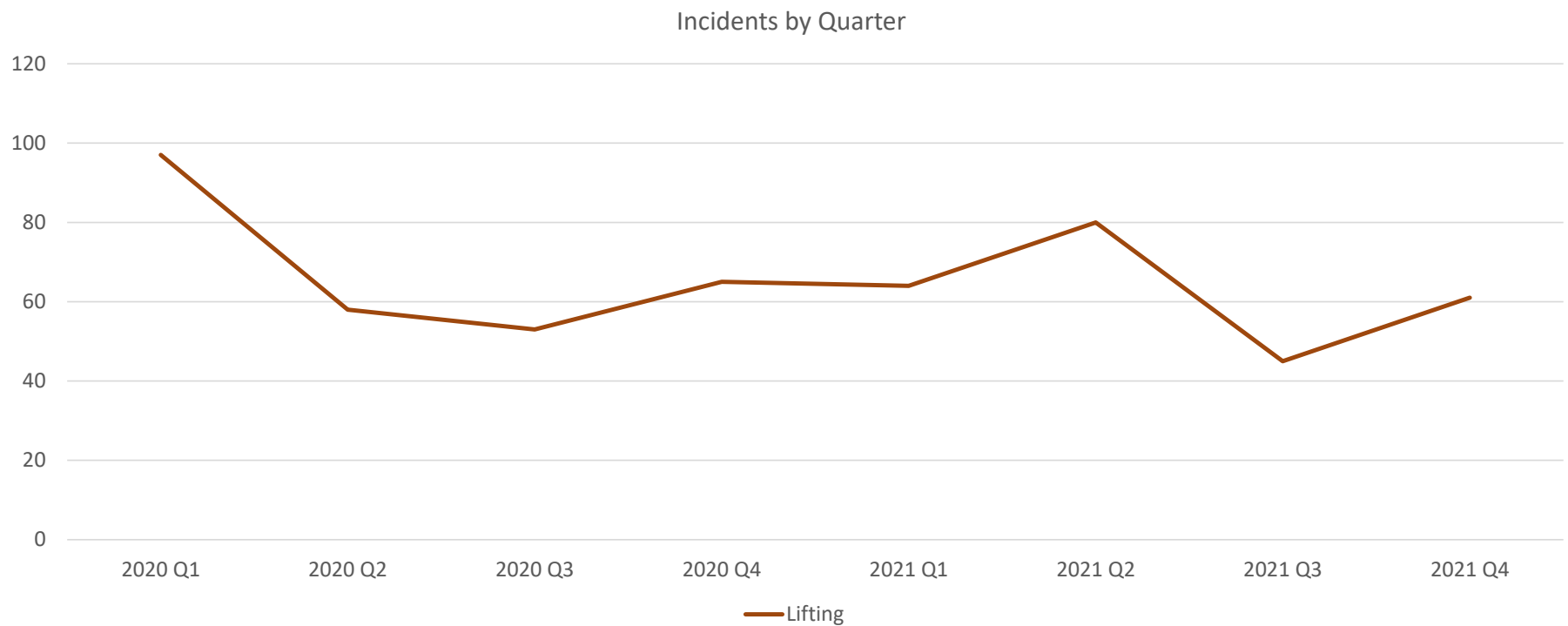


OCS Incident Rates – Pollution MPSR Q1 2022

MARINE POLLUTION SURVEILLANCE REPORT	
Analysis by: The National Oceanic and Atmospheric Administration, Satellite and Information Service (NOAA/NESDIS)	
REPORT DATE/TIME: 2/11/2022 0100 (UTC)	
DATA SOURCE: LANDSAT8 OLI	
MODE: Multispectral	
RESOLUTION: 30 meter	
IMAGE DATE/TIME: 2/10/2022 1632 (UTC)	
 Possible Oil	
 Possible Thicker Oil	
Suspected Point Source: [28°16'28" N/91°05'34" W]	
24.18 km²	Total Area of Possible Oil
AREA/BLOCK: SHIP SHOAL 291	
REMARKS: Possible oil was observed in satellite imagery. This anomaly is unconfirmed as oil. The slick was long and winding west bound and emanated from an oil facility. This report is associated with NRC# 1328567. The slick had stretches of brighter returns which are indications of thicker oil and was a total of approximately 20.43nm in length and was approximately 1.18nm at its widest point. Winds near the time of the image were out of the east at 3kts.	
UNCERTAINTIES: None.	
<small>Neither the United States Government, nor its employees, make any warranty nor assume liability or responsibility for the accuracy or completeness of this product. For further information on oil spill response and assessment go to: https://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills</small>	

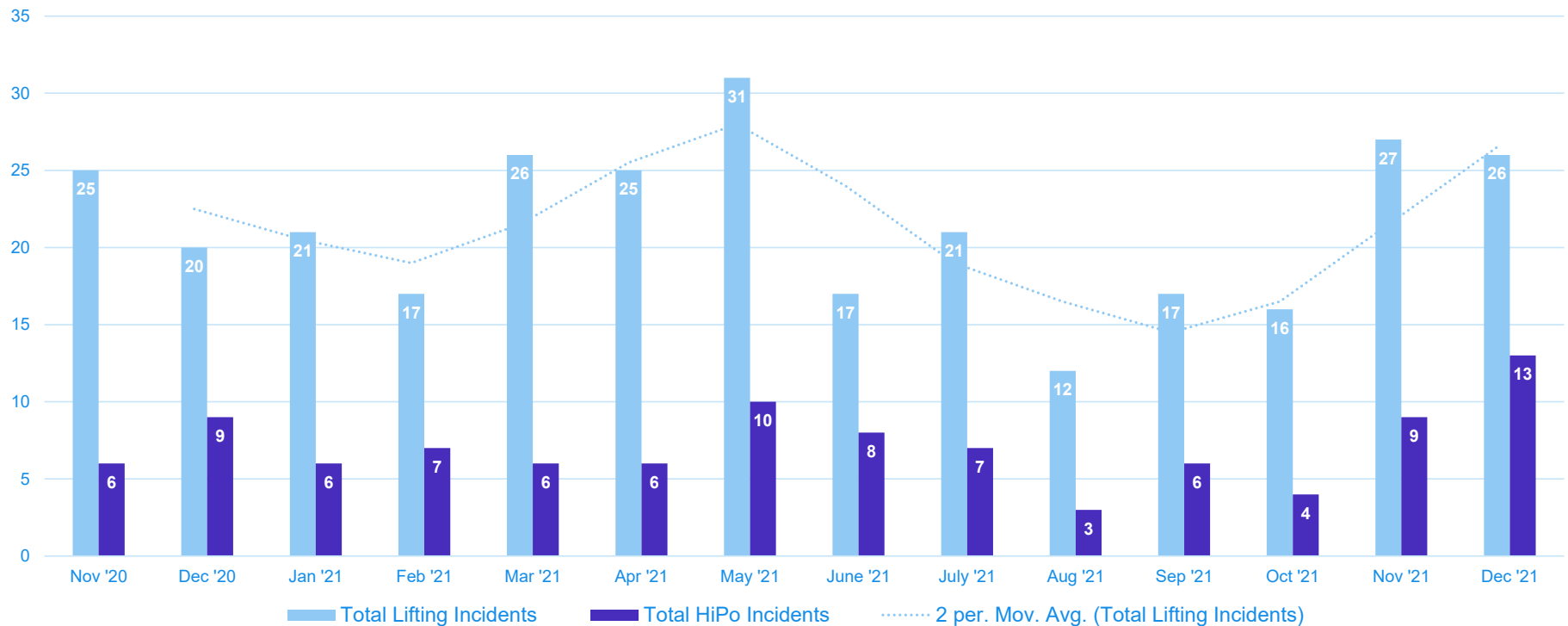


OCS Lifting Trend

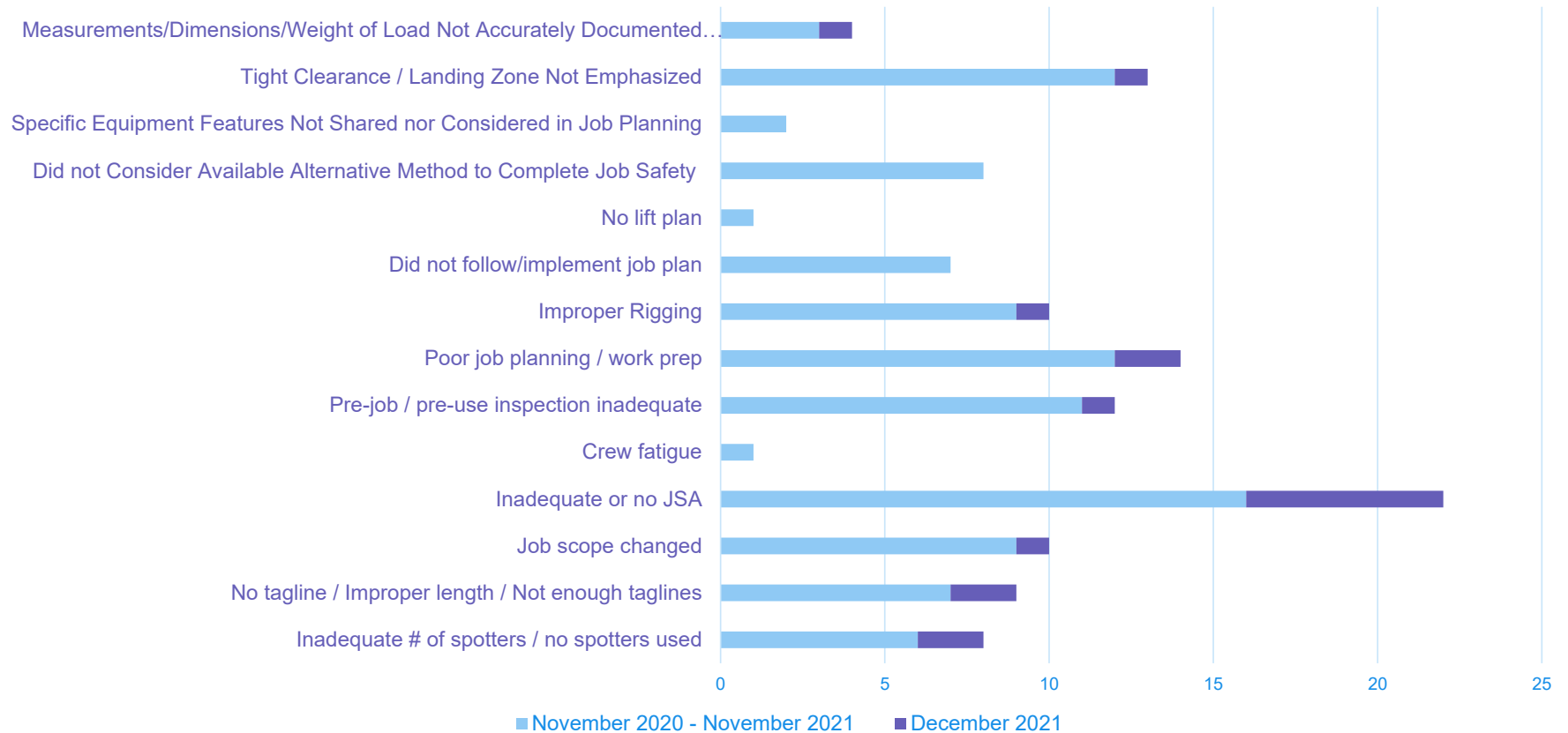


November 2020 – December 2021 Trends - GOM

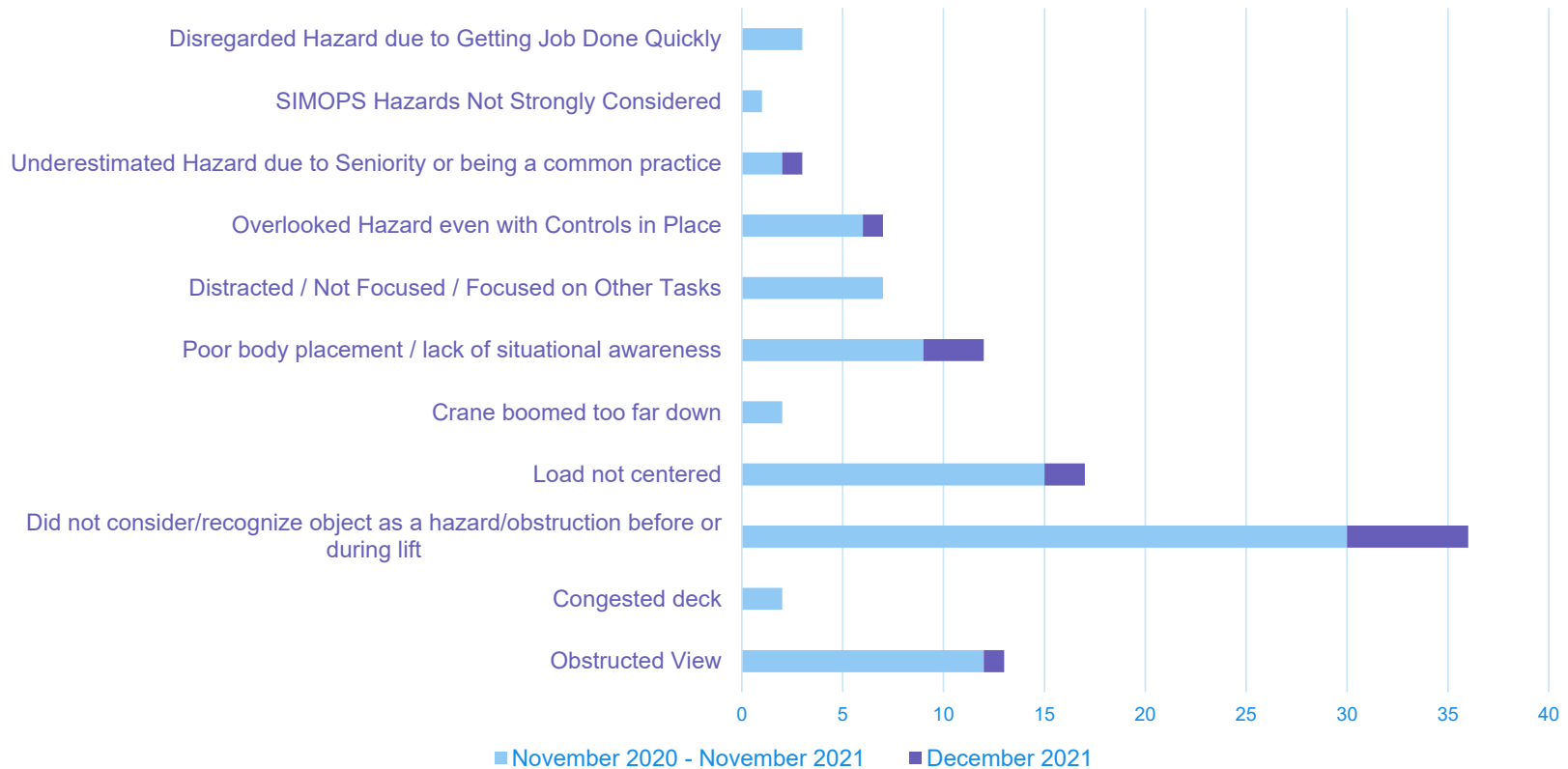
Monthly Lifting Incidents and HiPo Incidents



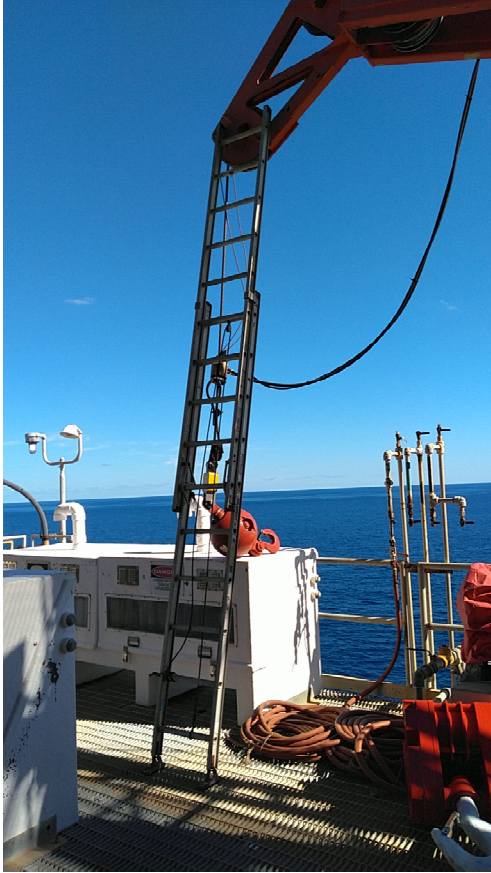
Work Direction Subcategories



Hazard Recognition Subcategories



OCS Incident Rates – Lifting Injury, RW/JT >3, 12/23/21



OCS Incident Rates – Lifting, 12/31/21



Aux line protruding wire and A2B sensor weight



Damaged aux line boom tip sheave

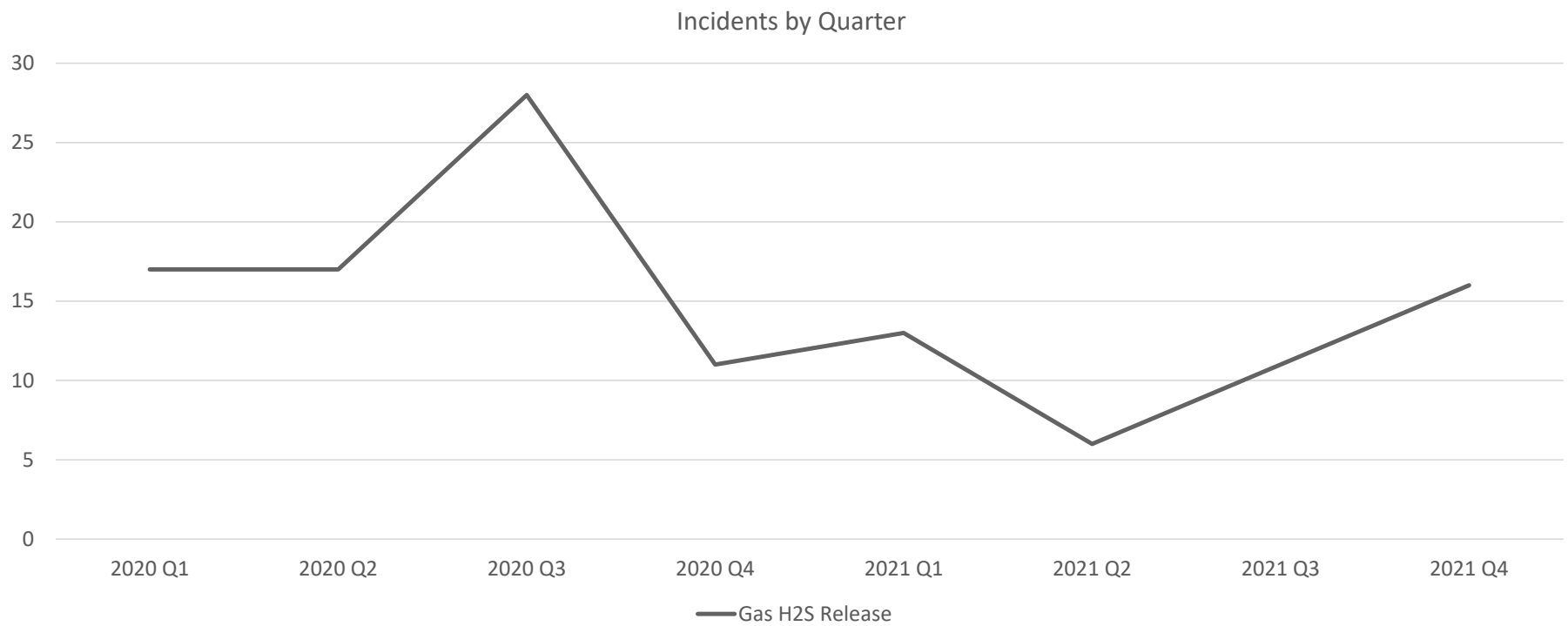


Damaged aux line

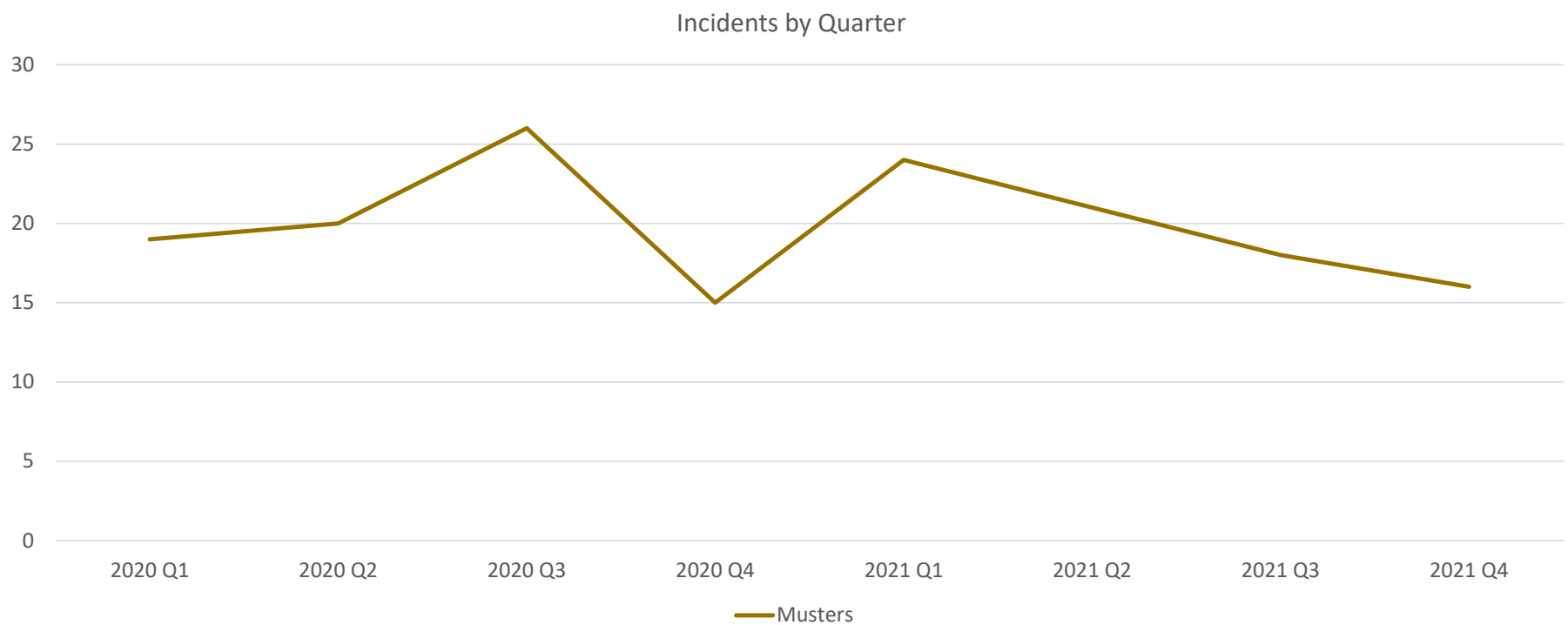


Damaged aux line on winch drum

OCS Gas Release Trend



OCS Muster Trend



Short Service Employee Trend

- Covid-19
 - Aging Work Force
 - Commodity Pricing (layoffs and expansion)
 - Experience Gaps
-
- New to Industry, New to Position, New to Facility

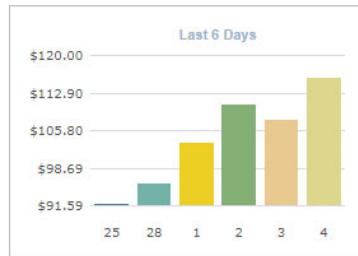
Injury – 2/27/22



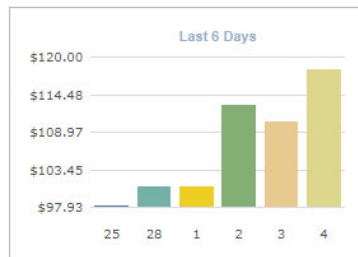
Inspection – 1/31/22

Enforcement Action:				
		W - Warning	C - Component Shut-in	S - Facility Shut-in
PINC No.	Enf. Action	Authority	INC Description and any Special Orders (shut-in of operations, facility, wells, etc.) Potential INC/PINC Guidelines at http://www.bsee.gov/regcompliance/inspect.htm	Date Corrected
G110	S	30 CFR 250.107	<p>DOES THE LESSEE PERFORM ALL OPERATIONS IN A SAFE AND WORKMANLIKE MANNER AND PROVIDE FOR THE PRESERVATION AND CONSERVATION OF PROPERTY AND THE ENVIRONMENT?</p> <p>At the time of inspection, the crew was not trained and/or qualified to operate the life capsule. The operation crew is not familiar with testing the facility's safety devices. No gas detectors are available to monitor atmosphere during any type of hot work operations.</p>	

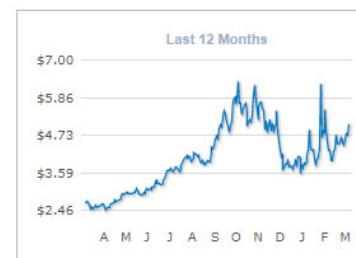
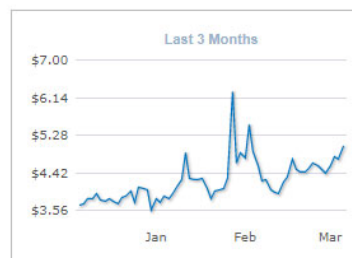
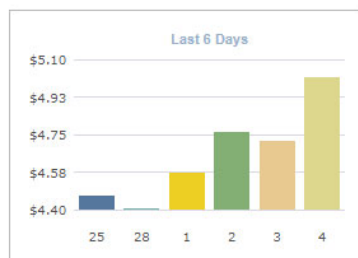
Light Crude Oil



Brent Crude Oil



Natural Gas



Don't Look Back – You're Not Going That Way



**Thank you for all
you
do for America!**



Any Questions?

“To promote safety, protect the environment and conserve resources offshore through vigorous regulatory oversight and enforcement.”



BSEE Website: www.bsee.gov



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