



# PEARL GTL Project

## Well Engineering

## HSE Performance

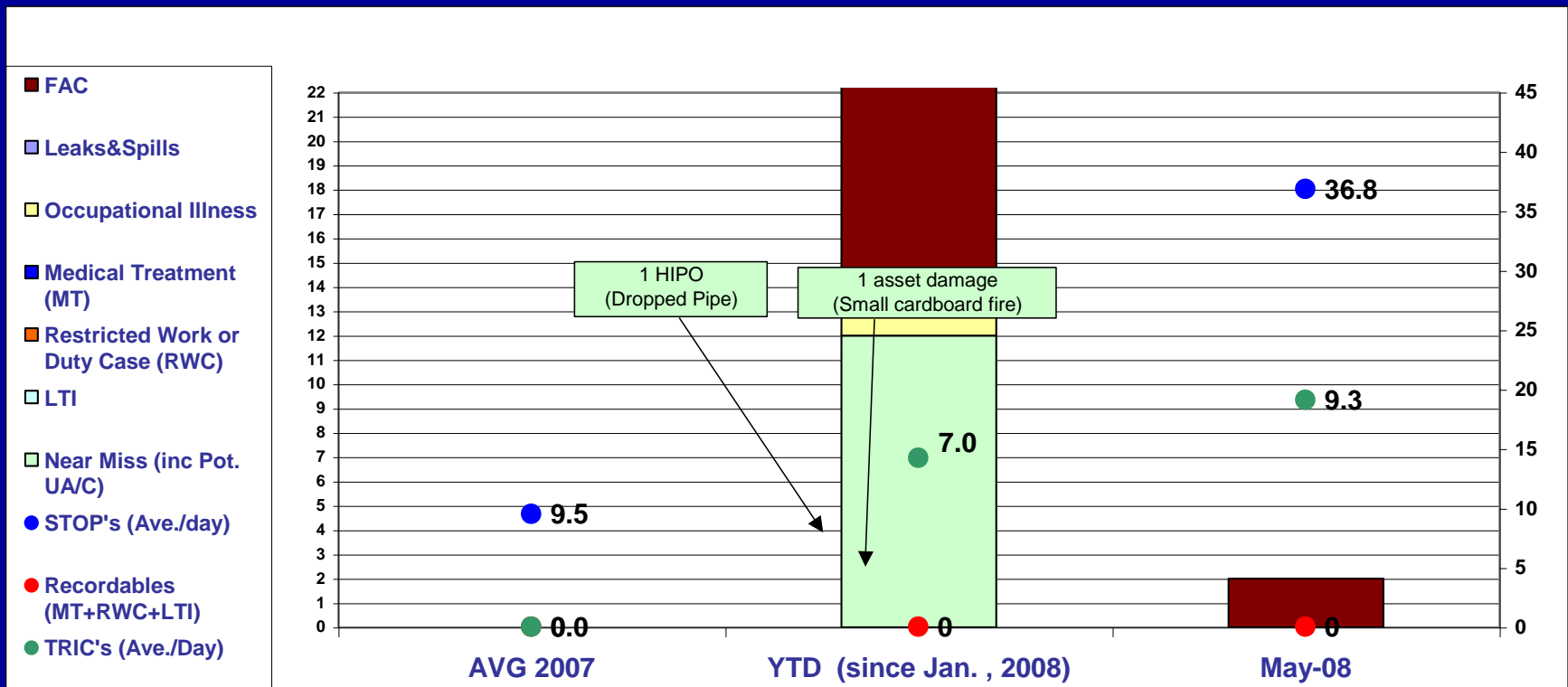
Stewart Logan

# Noble Roger Lewis



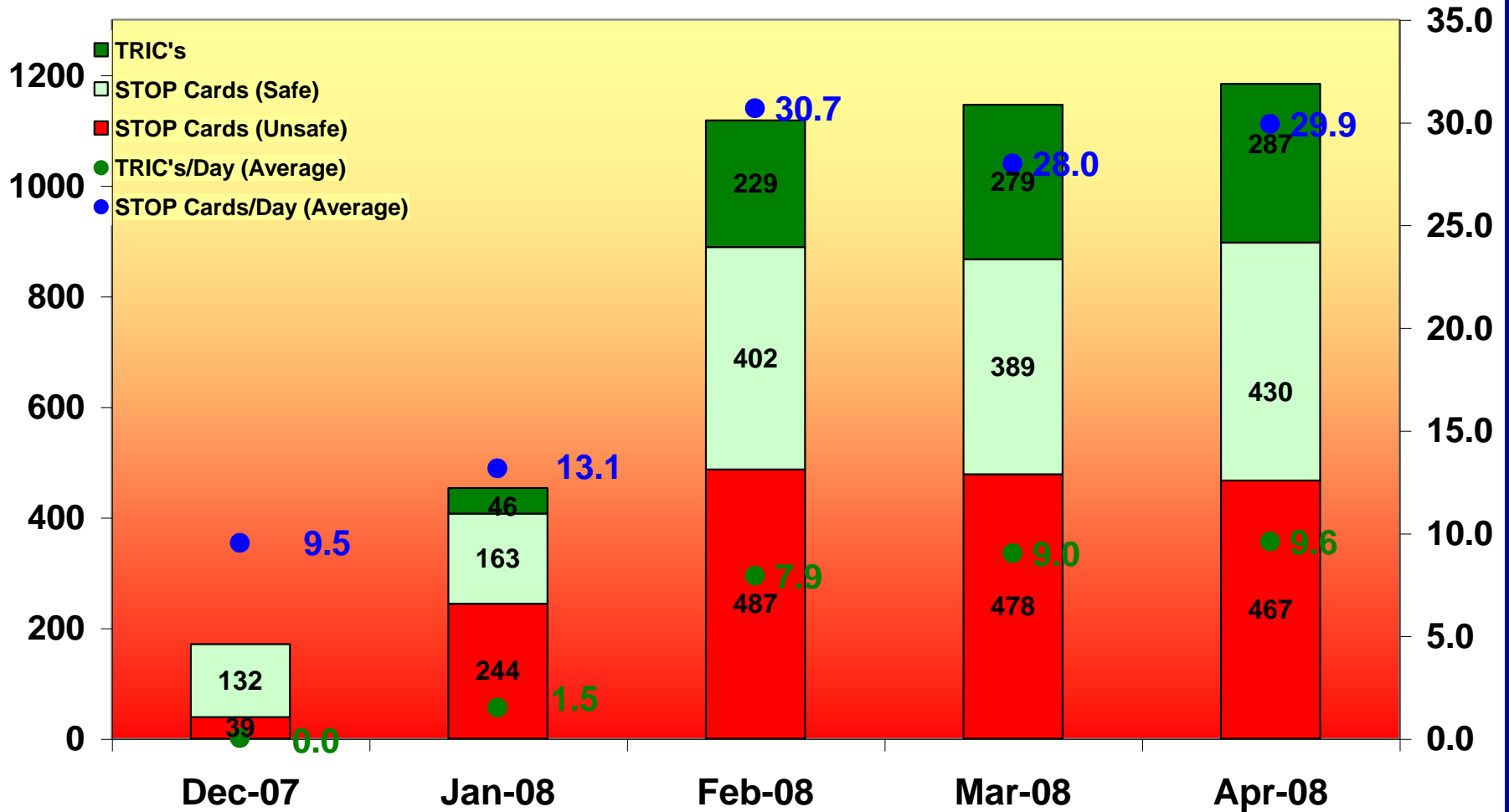
**We put HSE 1st**

Days Since Last LTI (Rig)	151
Days Since Last LTI (Qatar Shell GTL / Well Engineer)	1620
Days Since Last LTI (SHELL Contract)	117
Days Since Last HPI (SHELL Contract)	94



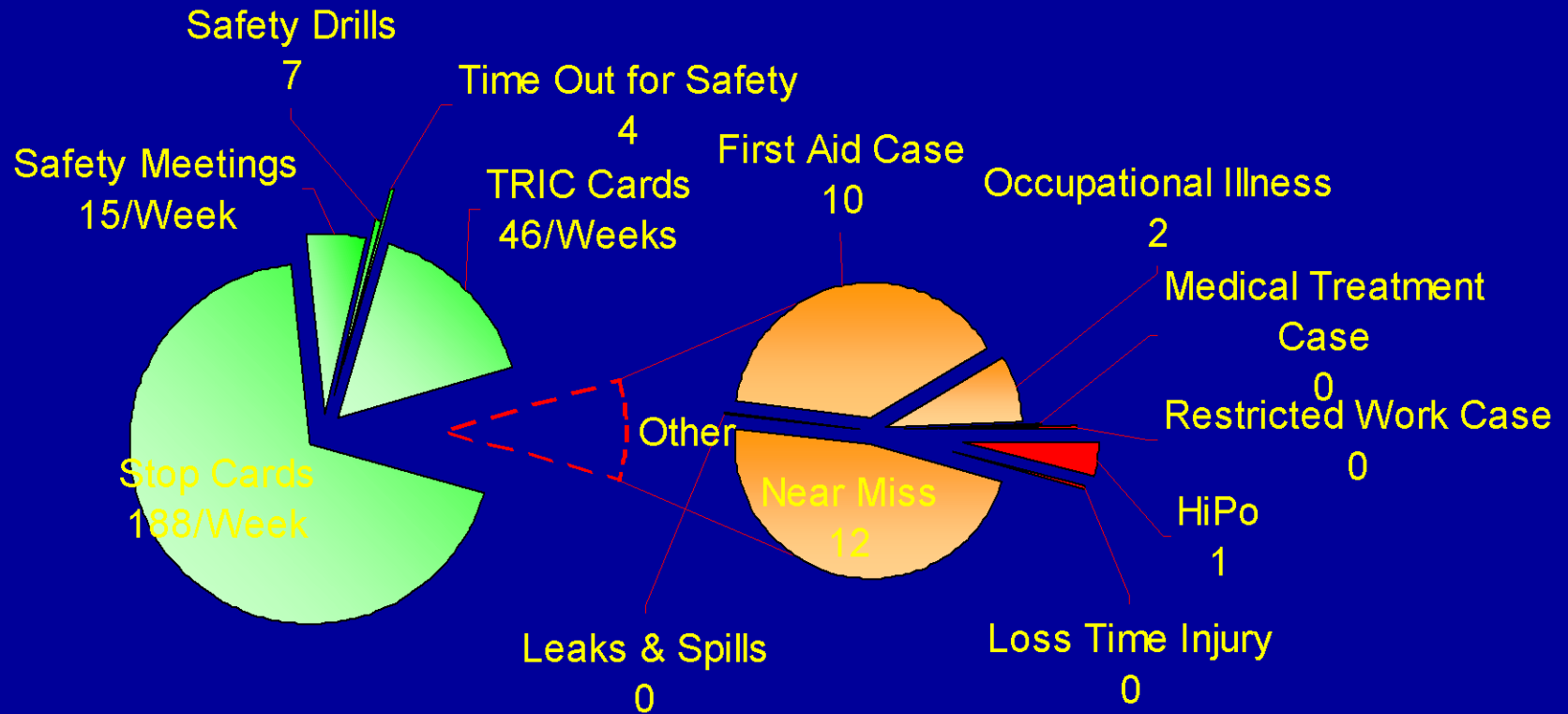


## STOP / TRIC Card Participation





# Noble Roger Lewis

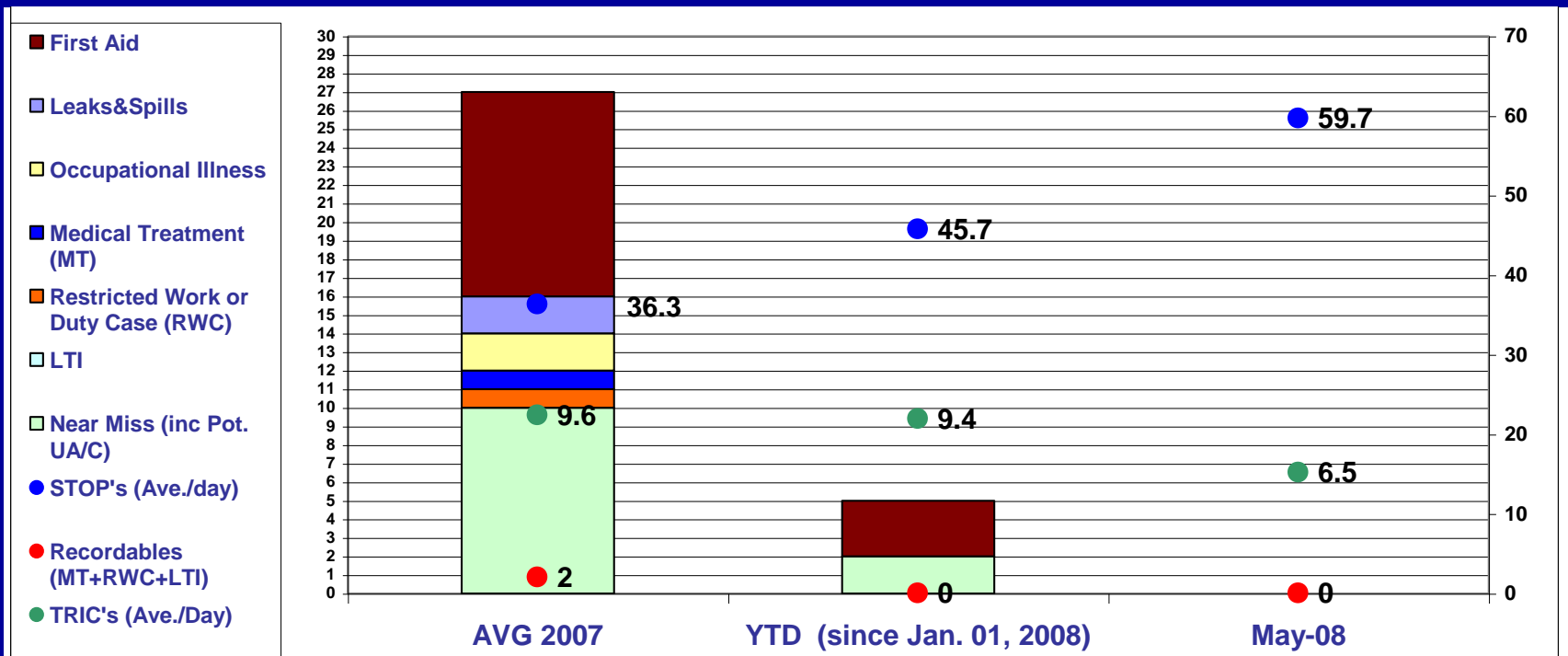


# Noble Gene House



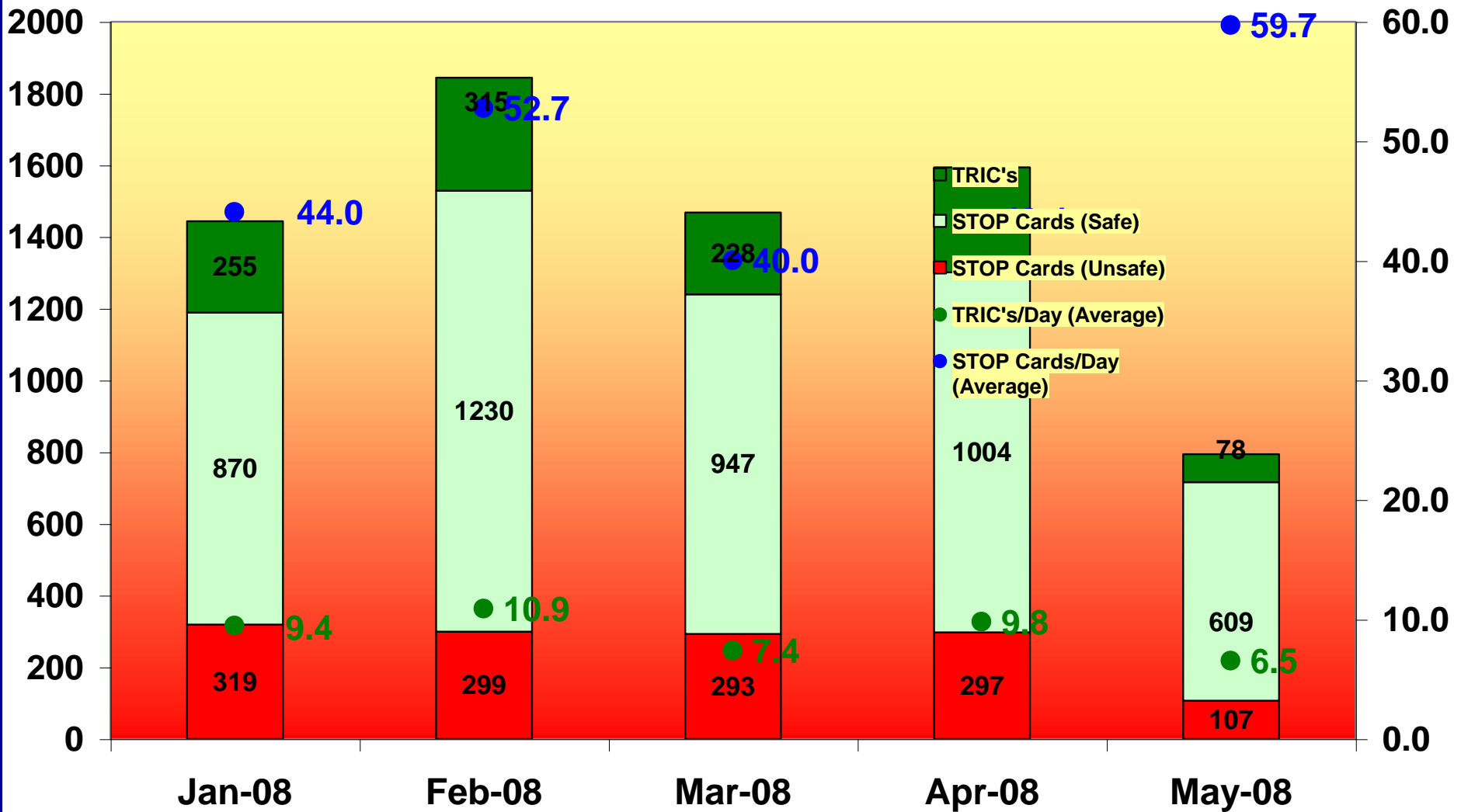
**We put HSE 1st**

Days Since Last LTI (Rig)	2017
Days Since Last LTI (Qatar Shell GTL / Well Engineer)	1620
Days Since Last LTI (SHELL Contract)	466
Days Since Last HPI (SHELL Contract)	260
Days Since Last Incident Recorded (Vessels/Base)	258
Days Since Last Incident Recorded (RLIC Wells)	49



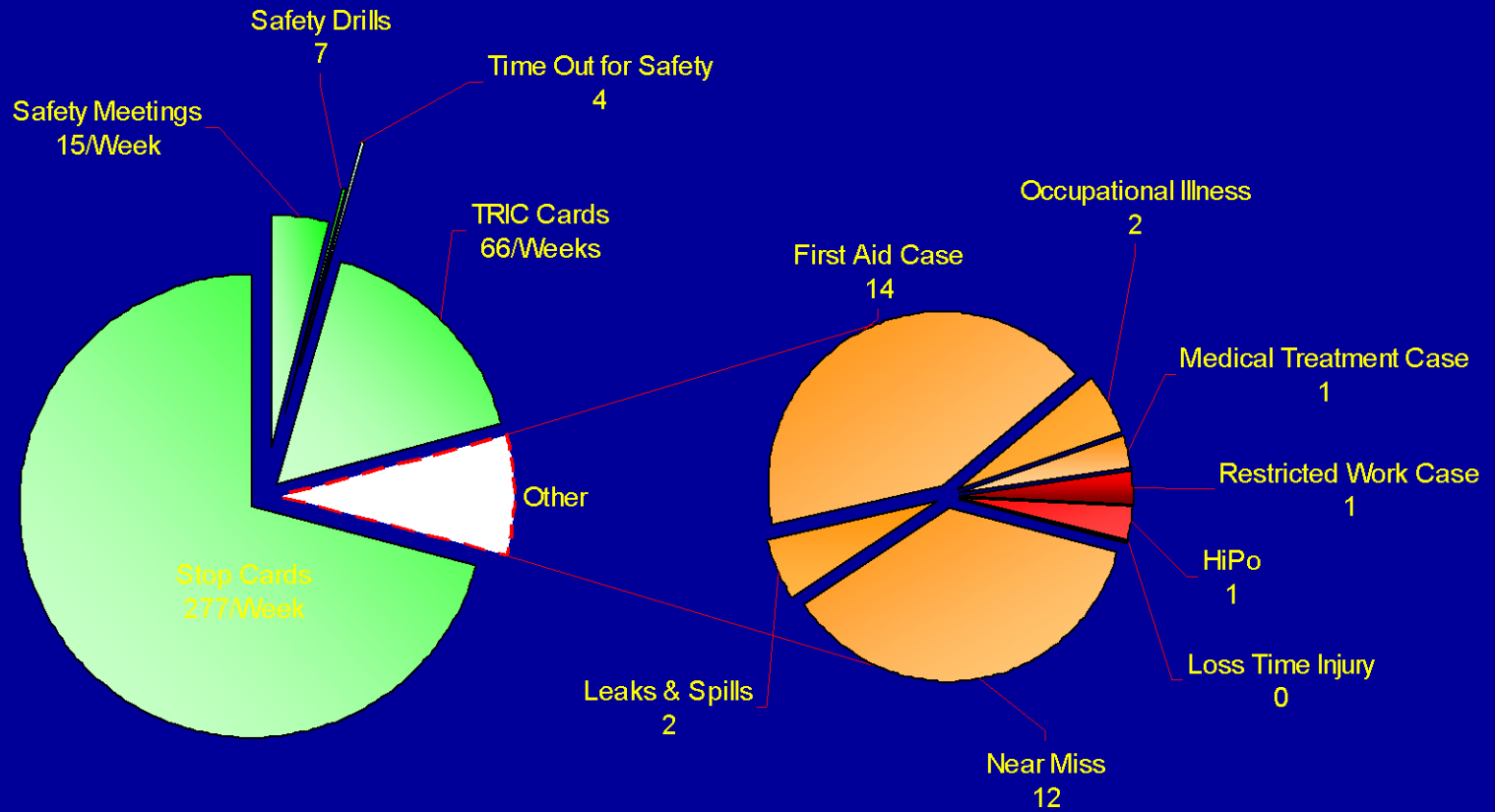


# STOP / TRIC Card Participation





### Noble Gene House





## Tripod B Analysis

HIPO – Pearl Temp Wellhead Deck

8 Nov 07



## Incident Description

- **NGH was drilling on the Pearl 1 platform**
- **Time: 23:15**
- **Weather: Rough and windy over the previous 2-3 days**
- **Incident Location: Temp Wellhead Deck**

### What Happened

- **NGH AD fell through the grating**
- **The AD caught himself on a support beam**
- **The grating and hatch cover fell into the sea**



## Incident Description continued

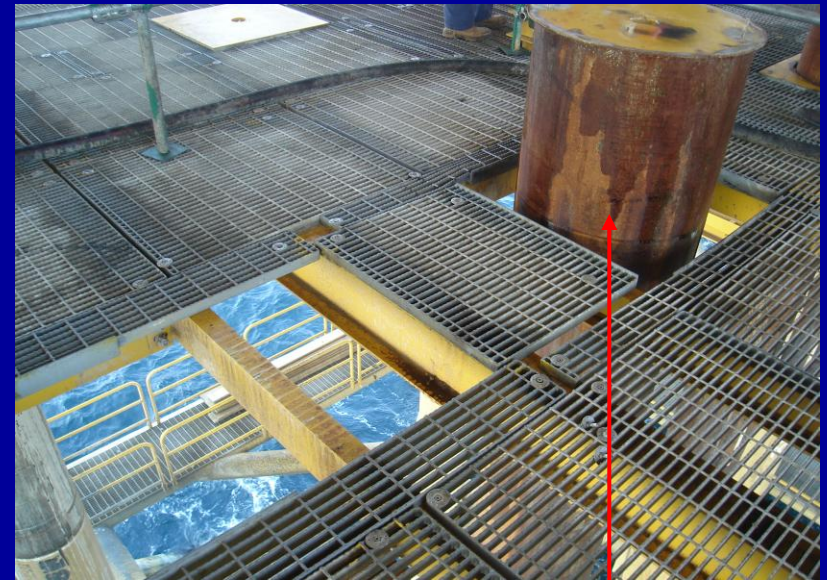
### How Did This Happen?

Opposite Side View



1<sup>st</sup> - Left Foot

2<sup>nd</sup> - Right Foot



30 " Conductor



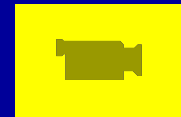
## Incident Description continued





### Root Causes

- **30 “ conductor was not constrained**
  - **Upper centralizer**
  - **Wooden chocks**
- **The conductor moved freely during high winds**
- **The grating was not constrained correctly**
  - **Designed for vertical loads**
  - **No lateral constraints – “positioners”**





# Incident Description continued





## Learnings/Action Points

- **Inspect Pearl 1 & Pearl 2 Platforms for Loose Grating**
- **Install Permanent Centralizer**
- **Organize a Team Bldg. Workshop for the Platforms Grp and Upstream**
- **Review PTW process Offshore – Train for Compliance**
- **Improve Adherence to the MOC process**
- **Improve Communication/ Feedback of Work Progress**
- **Any Design Deviations Require Sign Off by the User and the TA**
- **Project Mgrs to Implement a Jt. Process for Operability Review**
- **PTW Audits Captured in the Upstream HSE plan**
- **Continual Improvement of the HSE Culture**