

Starting a new drilling project in PNG

Drill Safe Conference Brisbane

6th December 2007



HAES – The preferred place to Work

The Journey



Red Deer, Alberta, Canada



POM, PNG



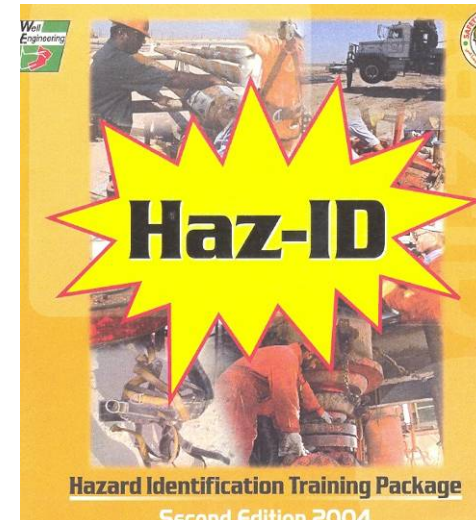
Rig 101 Highlights

- NO LTI since contract start.
- 6 months today since LTI.
- 57 days since last recordable incident – A Medical treatment case.
- STOP/HAZID Card total was 482 cards
- An equivalent of 8 cards per day including rig move.
- Excellent incident reporting culture since contract start.

Initiatives

- Expectations Workshop completed for all personnel
- Drops Survey completed
- Dedicated Drops Tool Box purchased
- Approved Safety Knives implemented
- HAZID Folders implemented
- EDN Safety Leadership
- Integrated Approach with operator.

Initiatives cont;



Low Lights

- 28 incidents since start up (May 07)
 - Zero LTI's
 - 1 x Medical Treatment
 - 8 x Near Misses
 - 7 x Damage Reports
 - 6 x First Aid Cases
 - 2 x Environmental
 - 4 x Report Only
- Two significant incidents
 - Medical Treatment – Nail through sole of foot (contractor)
 - Near Miss – Dropped Rigging Screw

Dropped Object – Rigging Screw

Jaw End 15th October 2007

What Happened

- Two workers were assigned with the task of fitting Rigging Screws between the Tesco Top Drive Torque Tube Track and the mast on both the drillers and off driller's side.
- Prior to climbing both workers donned their safety harnesses and attached safety lanyard from one end of the Rigging Screw to the D ring at the front of their harness.
- This meant when climbing with the Rigging Screw it would have been vertical with the tied off jaw end at the top and unsecured end running down the right hand side of the person's body ending around his thigh.
- When the second worker climbed the derrick ladder to a height of approximately 40 foot above the floor the unsecured jaw end at the bottom dislodged and fell to the ground (approx 60 foot).
- The jaw alone weighed 2.3 kg and landed 9 metres out from hole centre on the drillers side in line with where the V door meets the Catwalk and only 10 feet away from a tag line operator assisting a crane lift.
- The floor was clear of all personnel prior to the job commencing except the Assistant Driller who was supervising the job.

Cont....

- Both Rigging Screws and Turnbuckles are normally referred to as Turnbuckles. OEM drawing call for Turnbuckles to be fitted.
- The design of the Rigging Screw is such that the thread is enclosed inside a tubular section of steel making it hard to determine how far the jaw threads are screwed in.



How did it go wrong?

- Jaw ends of the Rigging Screws are not fitted with any secondary securing device i.e. locking nut to prevent them from backing out. Turnbuckles are fitted with locking nuts.
- Before sending the workers up the derrick the AD screwed in both ends of the Rigging Screw a few turns. Given that one end screws clockwise and the other anti-clockwise it is possible that he may have actually backed one end out some turns instead of in. This would not be noticeable within the tubular section.
- Rigging Screws were new and easy to screw in and out. Given the position of the Rigging Screw during climbing it is considered possible that with every ladder rung climbed the person's right thigh may have been knocking the bottom jaw causing it to turn and back out.
- No Permit to Work or Job Safety Analysis was in place for the task. This job was a non-routine job.
- The second person to climb said he had performed this task before and knew they were not using the correct turnbuckle type. He did not stop the job or question his supervisor because quote "he is the expert and he must know" unquote.

Shared Learning's

- Failure to **STOP THE JOB**. Employee did not intervene even though he knew they were the wrong type. Onsite Supervisor to reinforce “Stopping the Job” is a right and an expected practice.
- Rigging Screws have been taken out service and replaced with OEM recommended Turnbuckles.
- The end of the Turnbuckle jaw thread has been drilled to allow a safety pin to be fitted. This will act as an extra safety device in addition to already fitted locking nuts.
- Permit to Work and Job Safety Analysis awareness sessions were held with all onsite crews.



Our Vision

***"Together Delivering a "Bilum" of
Success, Pride and Opportunity"***

The Preferred Place to Work.

Thank you any questions



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