

FATAL ALERT

March 30, 2006

Rig workers were in the process of changing out a saver sub, which is a short section of pipe positioned between the Kelly and the drill pipe.

At this time, hole depth was 11908.2 feet. During the process of adding a section of pipe, the evening tour crew dropped the pipe string about six feet. After picking up the pipe string and setting the Kelly, drilling commenced for about 100 feet. Because the pipe string was dropped, the decision was made to trip the hole and check the "bottom hole assembly" bit and mud motor. After tripping to 4289.8 feet, the chain on the input sprocket for the draw works became loose breaking teeth on the sprocket, shutting down the operation. The sprocket had to be replaced before drilling operations could continue.

With the sprocket replaced, the Tool Pusher was on the brake handle and picked up on the slips to see if the pipe would move. It was stuck in the hole would not move. Estimated down hole string weight was about 150,000 pounds. They could pull up to 70% of the string weight. The rotary transmission was placed in low/low forward. With the table rotating in a clockwise direction, they picked up the pipe string and pulled to 220,000, rotating the pipe string clockwise attempting to drill through the stuck position. This procedure was not only stretching the drill pipe but also twisting and coiling it as well. Being unsuccessful in attempting to drill through the stuck position, the pipe string was rotated counterclockwise untwisting the pipe string. The pipe string was set on the slips. The Kelly was picked up to change the saver sub. Once the new sub was placed in the pipe string, the driller went into the doghouse to get the chain tong. The chain tong was fitted with a 37" handle and is designed to grip pipe in either direction. Returning to the drill floor, the driller placed the chain tong on the saver sub to tighten it up. The Kelly was raised about 3-4" above the saver sub to make it easier to tighten the sub to the pipe string. When the driller began to tighten the saver sub to the pipe string with the chain tong, the pipe string began to uncoil counterclockwise at a very high rate of speed. While the driller was holding onto the handle of the chain tong, he was lifted from the drill floor and forced backwards into the drawworks causing him to lose his grip on the handle. The driller began falling to the drill floor. As the pipe was uncoiling, the handle on the chain tong struck the driller several times to the body and head before reaching the drill floor. The driller was transported to a medical facility where he expired.

Significant Factors

- 1) Inexperienced floor hands.
- 2) The individual operating the driller's console at the time of the accident was not an authorized driller. He had been a driller but was reassigned back to derrickman due to making a serious error operating a rig.
- 3) Written safety procedures (JSA) were not developed for employees to recognize the potential hazard(s) prior to performing the task in progress at the time of accident.
- 4) Controls not in use on the driller's console were not placed in the locked position.
- 5) Kelly spinners were not operational.
- 6) Pipe spinners located on the drill floor were not used.
- 7) The drill pipe was stuck at 4289.8 feet.

Recommendations

- Brief all employees on the facts and circumstances of this fatal mishap.
- Ensure a Job Safety Analysis (JSA) is completed prior to performing the task so all employees involved have the knowledge to perform the task safely.
- Ensure all control levers equipped with a locking device on the driller's console that are not in use are locked out.
- All employees should constantly assess the operation for safety hazards. If an employee(s) is positioned in a potentially hazardous location, stop the operation and correct the potential hazard immediately.
- Ensure only highly trained, experienced, and authorized employees are allowed to operate drilling rigs.