Abandonment Operation Exposes Workers to Wellbore Chemicals, Gases and Liquids

Lost Time Incident

SAFETY ALERT ISSUE #: 19-2011

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Details
Release Date: September 2011
Incidence Type: Equipment Failure
Country and Region: Alberta, Canada

For more information on this event, please contact: safety@enform.ca

Description of Incident:

- A gas kick occurred during an abandonment operation with no warning signs exposing the rig crew to high pressure gas, crude oil, produced water and wellbore solvent.
- Crew prevented a blowout while being exposed to gas, liquids and chemicals.

What caused it:

- Undetected gas kick surfaced.
- An exposed sucker rod, 6.0 m above the tubing top was unable to be secured with a rod BOP, resulting in an unprotected rig crew.

Corrective Actions:

- Rod handling equipment changed over to tubing handling equipment.
- Crew installed stabbing valve onto tubing joint, hoisted and lubricated over rod and secured into tubing joint at floor level.
- Tubing was lowered to floor level, stabbing valve closed and well was secure.
- Crew received medical aid, after being exposed to the wellbore fluids.

Preventive Actions:

Investigation produced the following preventive recommendations:

- Follow established well control procedures (Well Service BOP)
- Wet trip any production strings where unable to utilize Coiled Tubing Unit to maintain isolation on tubing from any annular pressures.
- Onsite rod shearing equipment for use on rods that are preventing immediate installation of blow out prevention equipment.
- Utilization of pump and tank with calculated kill volume(s) Other Preventative actions may include.
- Identify all known and potential chemical hazards
- Ensure supplier of chemicals provides accurate and current MSDS
- Review Material Safety Data Sheets prior to commencing operations and use appropriate PPE and other controls.
- Ensure that wet gear and SCBA air packs are in placed in a central location if stripping is required.
- Ensure onsite showers or facilities are available if workers are exposed to any reservoir fluids or chemical solvents.