OISD Workshop
28th -29th December 2016

Emerging Risk in E&P Operations and lesson Learnt from Past Incidents
Kharsang # 60
Pioneering technique of Blowout Control

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Kharsang oil field is situated in Arunachal Pradesh around 04 hrs drive from Dibrugarh, Assam.

GeoEnpro Petroleum Ltd along with Oil India having a 40% stake is operating this oilfield.

Kharsang oil field is located in an area of around 14 sq. kms. It is a small field having many Zone of interest.

Mainly oil is produced for commercial purpose and gas is produced only for their internal consumption and running their captive power plant
A 50 ton work over rig was deployed at Kharsang#60 operated by GeoEnpro Petroleum Ltd.

Mechanical packer was set at 971.82 mts and could not be released.

Tubing string was backed off above the packer.

Fishing operation was being carried out in the well and retrieval of packer with male tap was going on.
PERFORATION
1001-1005
1007-1012
1046-1047

13 3/8" Shoe @ 64mts

9 5/8" Shoe @ 460mts MD

MECHANICAL PACKER 971.82 mts

7" casing Shoe at 1466mts MD

SBHP - 1649psi @ 1046 mts
STHP - 109.5-111 Kg/cm²
During pulling out of fishing tool and pulling out of last two drill collars there was sudden activity in the well.

Uncontrolled flow of gas started gushing out of the well.

Rig crew closed the 2 7/8” Pipe rams and the blind rams against the 4 ¼” drill collar.

Flow intensified further and a full-fledged Blow out was in hand.

GeoEnpro sought the help of ONGC Management.

Head CMT Corporate mobilized a team from RCMT Sivsagar in the wee hours of 01.07.2015
Incident

- Looking at the severity of the incident, two senior experts from Central CMT, Ahmedabad were also mobilized which reached blowout site on 02.07.2015 and took control of the situation.

- On reaching the site it was observed that the well was blowing gas vociferously.

- 1 1/2 singles of 4 ¼” Drill collar was in the well and half Drill collar and one single drill pipe was above rotary table with FOSV in closed condition which was connected with rotary hose.

- The well was blowing gas with flow reaching above monkey board.

- It was observed that both pipe rams and blind rams were in closed condition against drill collar with manual lock tightened.
Lesson not being Learnt

- Pipe ram and Blind ram are not meant to be closed on Drill Collars.
- Annular BOP and Variable ram should be used in BOP stack when different sizes of pipes are in the string.
- The key operational personnel should have very good knowledge of well control procedures and equipment. It should be ensured that they are having valid IWCF/IADC certificate.
- Proper use of trip tank should be done religiously.
- Trip sheet should be filled in every shift and proper monitoring of well volume should be done during pulling out/run in the hole.
- Round the clock 24x7 supervision and monitoring of operation by competent person should be ensured during work over operation.
Thank you