Third Party Integration in the field. What can and does happen

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DrillSafe
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A779569
231 Notifications 93 requiring investigation
Tight hole (Mud Man)
Gas lift annular problems
Wells awaiting P&A

119 Notifications 36 requiring investigation

1803 Notifications 831 requiring investigation

Outside PP & GF Boundaries
At PP & FG Boundaries
BOP closing pressure calculations
BOP Pressure test
Injury while working in the derrick
Third party equipment Certification
Flow back equipment Use

Well Integrity Risk
Environmental Risk
Safety Risk
Who controls the risk now?

Outside PP & GF Boundaries

At PP & FG Boundaries

BOP closing pressure calculations

Gas lift annular problems

Tight hole (Mud Man)

Flow back equipment Use

Third party equipment Certification

BOP Pressure test

Injury while working in derrick

Oil Company

Drilling Contractor

Service Company

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Who is responsible for the consequences?

- Outside PP & GF Boundaries
- At PP & FG Boundaries
- BOP closing pressure calculations
- Injury while working in derrick
- Gas lift annular problems
- Tight hole (Mud Man)
- Flow back equipment Use
- Third party equipment Certification
- BOP Pressure test

Oil Company

Drilling Contractor

Service Company

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Integrated management reducing risk

- Outside PP & GF Boundaries
- At PP & FG Boundaries
- BOP closing pressure calculations
- Injury while working in derrick

Opportunity for increased assurance from each other

- Gas lift annular problems
- Tight hole (Mud Man)
- Flow back equipment Use
- Third party equipment Certification
- BOP Pressure test

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“Given the events of the past three years, drilling contractors should begin to act more like aircraft pilots than limousine drivers. Operators in turn should begin to treat contractors more like technical partners concerning world design, construction, risk management and management of change”

Integrating barriers, bridging documents and SEMs using the Bow-Tie system. Scott Randall et al OTC 23692 May 2012
Focus on left of Bow Ties - Example

Opportunity for increased integrated risk management and assurance
IRF - Well Control Problem Statement

Problem statement:
Greater emphasis is needed on the left-hand side of the “Loss of Well Control” bow tie, particularly on pore pressure & fracture gradient prediction (PPFG) and its application to well design and construction.

Expected outcomes:
• Systematic approach to PPFG prediction
• Systematic workflows for translating PPFG data into well design
• Systematic implementation of existing guidance on well operating envelopes

Deliverables/KPIs:
• Publish PPFG industry guidance – target by Q1, 2022
• Joint IRF/IOGP/IADC implementation
• Reduced risk of well control incidents
Questions?
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