



Title: Well Integrity: Prevention of Well Control Incidents, the case for industry guidelines

Problem Statement:

Much industry collective effort has gone into defining responses to deal with any loss of well control situation. Recent data and incidents provide a view that a deeper understanding of the underlying hazards and how industry designs for them is worthy of collective action. This will strengthen industry focus towards the Left Hand Side of the “Loss of Well Control” bow tie and thus reduce the likelihood of any loss of well control events taking place. The planned efforts can be split in three broad areas:

- 1) Well design “inputs” (pore pressure/fracture gradients/geological risks).
 - 2) translation of 1) into efficient and safe well designs
 - 3) definition of safe operating envelopes for Wells activities in the operations and production phases.
- It is recognized that -whilst some areas like pore pressure/fracture gradient prediction has no universally accepted industry guidelines- in other areas guidance does exist. As such, this effort will likely need some development of new guidance but also target implementation of existing guidance.
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The changes we expect to see:

- Systematic industry approach to pore pressure/fracture gradient prediction, likely through the development and adoption of new industry baseline guidance.
 - Systematic work flows and key technical elements required for translating any new pore pressure/fracture gradient guideline into efficient and safe well designs, likely through development and implementation of new industry baseline guidance.
 - Systematic implementation of existing relevant guidance on safe well operating envelopes.
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Industry Association(s) invited to lead the change / develop the solution:

- International Association of Oil and Gas Producers (IOGP) / International Association of Drilling Contractors (IADC)
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Key performance indicators:

- Development of industry wide standards or guidelines.
 - IRF/IOGP collaboration on selection of targeted guidance for shared implementation focus.
 - Reduced likelihood of well control incidents.
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