

Bringing the Practical Touch to Business Improvement

Reservoir Development Interactive
Well Reviews

Reservoir Development Well Reviews

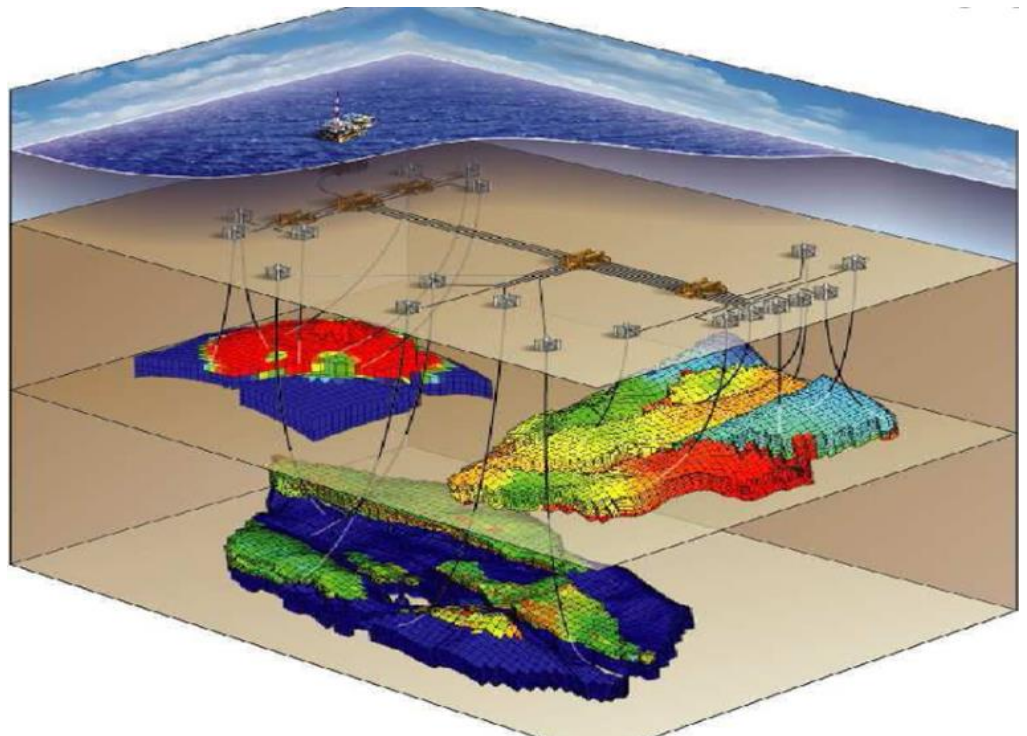
Success Story

1. Why are we doing it?

Reservoir Well reviews are undertaken annually to explore opportunities and vulnerabilities for increasing production, life of well and planning the future of each well. The outcome of the reviews drives the future planning for the asset, field and wells.

Well reviews involve asset operators, asset partners and other key stakeholders, they are a technical review, attended by: reservoir, well, petroleum, production and system engineers and production equipment specialists from both the operator and partners.

Feedback from recent reviews was very negative, limited opportunities were identified and when they were no further action was taken to explore the opportunities, the reviews were viewed as time consuming, cumbersome and not value adding.

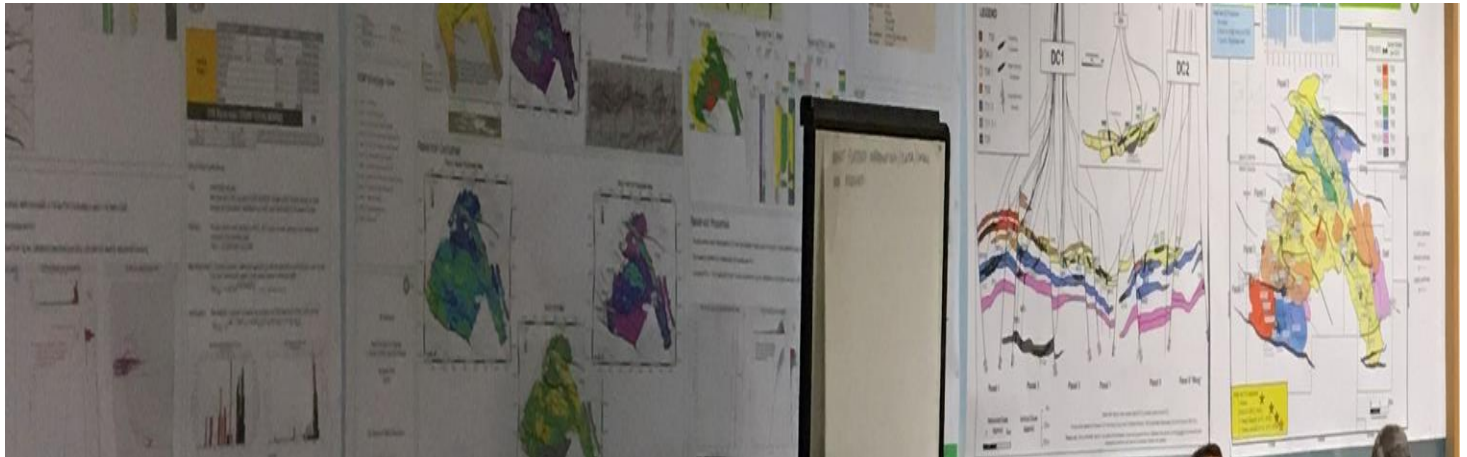


2. What was happening before?

The group were presented to by the reservoir engineer, their ideas and possible opportunities for the wells in the field under review, the events were usually 1 to 2 days.

The outcomes from the review were logged in an action tracker and taken into the daily work of the reservoir engineer, in most cases they weren't progressed because capacity constraints, where actions were progressed updates were never relayed back to the Partners.

This approach was constraining how intervention proposals were discussed, analysed and agreed and it was not fully inclusive, not everyone was heard. A less leading, and more open minded approach was needed.



3. How is it now?

The new agile approach was devised a more interactive 1 day event. In preparation for the review, field layouts, equipment and reservoir information was collated, some printed and visualised in 2 separate rooms, each room covering different wells and reservoirs.

Participants are split into 2 teams, with a mixture of operator and partner participants, with each team consisting of experts from the functions, a nominated lead, usually the reservoir engineer and an independent facilitator. The facilitator encouraged full participation, managed timings and behaviours.

The blend of knowledge in the teams allowed them to identify opportunities to maximise production and extend life of field, vulnerabilities to be addressed to ensure continuous production. Each team would spend approx. 2 hours in each room reviewing the materials, their findings by well were summarised on post its.

Both groups opportunities and vulnerabilities are then brought together, triaged and rated by the group. The remaining time was spent in smaller teams working on the prioritised opportunities and vulnerabilities, the outcomes of this work was shared with the full group at the end of the session. The actions were continued to be worked by the teams after the workshop, managed through a Kanban ensuring ownership and to keep within the agreed timescale for completion, with final outcomes being converted to business cases for operational execution.

4. What have we achieved?

An interactive, safe environment where all attendees are encouraged to participate, all voices are encouraged and heard.

Cross functional collaboration, bringing together and engaging all functional areas, partners and all stakeholders.

Visibility of data allowed it to be fully utilised which helped with ideation and encouraged better discussion and collaboration.

Generation of multiple ideas, opportunities and vulnerabilities, identified by a group of experts rather than single individuals.

5. What benefits have we realised?

Increased morale of participants who are fully engaged, people now volunteering to attend.

Multiple real opportunities to enhance production and life of fields.

Real value adding opportunities to be assessed, prioritised and work undertaken.

Risk mitigation, workshop provided a platform where vulnerabilities were identified and actions planned to mitigate.

6. What was the value of the deliverables?

A robust hopper of interventions spanning all the wells in the fields, which facilitated the generation of strategies to pursue

Increase in upcoming well work campaigns

Extending life of field and pushing out plugging and decommissioning work.

Proactive risk management, leading to a reduction in unplanned interventions

Recent Update – Covid 19

Since Covid – 19 restrictions were imposed, well reviews are being executed virtually still using the improved structure. Data is collated and displayed in two virtual rooms, field Layout, reservoir & wells information etc. Each well and reservoir was reviewed and discussed during an independently facilitated Microsoft Teams meeting, the identified opportunities, vulnerabilities or requests for further data recorded in the Teams chat box.

At the end of the reviews the opportunities and vulnerabilities were affinitised and the topics were presented back to the whole group, they voted on the topics that they believe provides the best value, generally 5 or 6 topics are selected.

The group is then split into 2 or 3 teams to work through and come up with actions that they believed were worthy of further investigation, time constrained so all topics could be worked through.

Each teams findings are fed back to the entire group and the further actions are added to a Virtual Kanban, selected by participants with clear responsibilities and timelines for completion.



Customer Focus

Full
Collaboration

Actions to
Increase &
Maintain
Production