Petrel Guru Enables Rapid Reservoir Evaluation Through Automated Reporting and Data Extraction

Time spent in performing repetitive tasks in data extraction significantly minimized

CHALLENGE
Significantly reduce time spent assessing new or existing field data while retaining the value and quality of vast quantities of simulation data to accelerate understanding of new and updated data across a range of sources.

SOLUTION
Optimize reservoir evaluation working practices using the quality reporting functionalities of the Petrel Guru module.

RESULTS
- Reduced evaluation time from 2 weeks to 2 days.
- Ran automated calculations and produced screenshots with print previews.
- Generated summative reports capturing key field performance information.

Crucial evaluation procedure needed to remove limitation, streamline process
The process for evaluating new or existing field data is typically manual, labor intensive, and highly time consuming, taking a team of senior reservoir engineers several weeks to perform. Petoro AS wanted to automate the routine tasks for this crucial procedure to enable the reservoir engineers to focus on performing analysis and assessment.

Comprehensive, automated solution implemented for data evaluation
Schlumberger collaborated with Petoro to set up a workflow using the Petrel Guru quality reporting functionalities that would deliver reports that capture key reservoir information. The automated report-generating tool has a principal aim of reducing the amount of time required to extract key statistical and graphical elements from a simulation case. Ongoing tool functionality identifies prospective areas and data where further evaluation and assessment can be targeted. This framework enables the value and quality of huge quantities of simulation data to be evaluated in a fraction of the time previously required, accelerating the understanding of new and updated data across a range of sources.

The Petrel Guru module helped Petoro to
- understand what data is up to date and relevant
- run automated calculations, including saturation maps, volumes of hydrocarbon in place, and recovery factors for a desired point in time
- produce screenshots of the top of structure maps, cross sections, and line plots
- generate summative reports capturing key information about a field’s performance
- provide an auditable record of key simulation metrics
- standardize and automate the reporting procedure.

“One key benefit of Guru is to save project study time. It would easily take more than 2 weeks for an engineer to review a simulation model, which is the main method we use to evaluate projects. Through using Petrel Guru, we have captured the key elements of model quality, volumetrics, history of production of reservoir fluids and hydrocarbon distribution within the reservoir, all of which provide a good understanding of the reservoir. Secondly, it enables standardized reservoir evaluation, reporting, data and information management, thus enabling a Guru report document to be used as a reference for a field. Many elements of the Guru report can be further utilized directly in our reports and presentations. Thirdly, it bridges the gap between diverse backgrounds and levels of experience of engineers. An engineer of 5 year or 20 years’ experience can deliver the same product at the same level of quality.”

Sabahattin Topdemir
Senior Advisor
Petoro AS
**Reduced evaluation time attributed to automation**

As a result, Petoro has seen its evaluation process decrease to 1 to 2 days from a minimum of 2 weeks, leveraging valuable time to invest in reservoir evaluation analysis by greatly reducing the time spent performing repetitive tasks in data extraction.