



Well Performance Consortium

whitson

The logo consists of the word "whitson" in a bold, dark blue, sans-serif font. The text is centered horizontally and vertically on a white background. Two light gray triangular shapes are positioned in the top-left and bottom-left corners of the page, pointing towards the center.

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Well Performance Consortium



BACKGROUND

This consortium represents a continuation of the 2022 Numerical RTA JIP and 2023 Multiphase RTA JIP with more than 60 participating companies.

In this study, the focus will be on improving the workflows and associated software related bottomhole pressure calculations, RTA/FMB^[1] workflows and nodal analysis.

GOALS

1. **BHP calc consensus:** Collect gauge data from 10 wells per company and compare industry standard correlations to measured gauge data. Provide recommendations on best-practices related to published correlations. If required, develop a new shale specific BHP correlation.
2. **RTA best practices:** Continue to develop best practices, guidelines and software related to cutting-edge RTA/FMB technologies. This includes RNP integrals, FMB smoothing/noise reduction, inclusion of adsorption, and more.
3. **Multi-well:** Further build out **whitson+** capabilities and workflows to simulate multi-well numerical models (i.e., multiple wells in one numerical grid).
4. **Nodal:** Include functionality to perform nodal calculations on a wide range of wells at the same time to target wells with the maximum potential for well intervention. Example: centralized gas-lift compression workflow.

In addition to study objectives, this consortium provides a technical arena for discussion, sparring and knowledge sharing related to unconventional well performance analysis. This is manifested through several knowledge sharing sessions and courses in which experiences and challenges are discussed among the participating companies.

WHAT'S IN IT FOR THE PARTICIPANTS?

- **whitson+** access during project period (one seat and no API/database connection).
- Participation in technical knowledge sharing sessions with the other JIP members.
- On-demand work sessions with **whitson** team for sparring, support and training.
- 5 complementary, half-day **whitson+** software courses
- 1-day course at project end in Houston, or virtual (3 people per company).
- Consortium Documentation & Presentations.

CONFIDENTIALITY & OTHER REMARKS

- The data provided by one company will not be shared with other companies in the consortium.
- The only information shared with all participating companies will be general conclusions and experiences from the work performed during the consortium.
- No data or results from this study will be published without the written consent of the consortium participants.

TIMELINE & COST

The JIP is planned to operate from Q4 2023 – Q4 2024. Rolling admissions are open until 31 Dec. 2023. The participation fee is 30,000 USD. Additional company-specific services can be provided upon request.

^[1] RTA: rate transient analysis, FMB: Flowing material balance

^[1] Permian, Eagle Ford, Austin Chalk, Utica, Bakken, Anadarko Basin, DJ Basin, Powder River Basin, Duvernay, Montney and Vaca Muerta.

^[2] Multiphase Flowing Material Balance without Relative Permeability Curves by Leslie Thompson & Barry Ruddick. URTEC: 3718045.

ABOUT US

We support energy companies, oil services companies, investors and government organizations with expertise and expansive analysis within PVT, well performance, gas condensate reservoirs and gas-based EOR. Our coverage ranges from R&D based industry studies to detailed due diligence, transaction or court case projects.

We help our clients find best possible answers to complex questions and assist them in the successful decision-making on technical challenges. We do this through a continuous, transparent dialog with our clients - before, during and after our engagement.

The company was founded by Dr. Curtis Hays Whitson in 1988 and is a Norwegian corporation located in Trondheim, Norway, with local presence in USA, Middle East, India and Indonesia.

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