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## Delaying Steam Breakthrough in a Fractured Heavy Oil Reservoir - Strategies and Outcomes

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It is well known that naturally fractured reservoirs very often represent the behavior of dual porosity systems, however, it is also similarly known that simulating flow and transport of oil and gas through dual porosity systems is computationally expensive, especially if simulating enhanced oil recovery (EOR) processes. Most of the simulation work that is thus done for full field and/or sector models use the single porosity approach for computational efficiency. In this study, the objective is to test both single as well as dual porosity models at the full-field scale for history matching and development strategies of a naturally fractured heavy oil reservoir in Russia. Because of computational expenses, high performance computing (super computers) is employed to assess the extent of modelling capabilities that can be replicated today with currently existing computational technologies for thermal EOR processes like SAGD and thermogel injection amongst others.

### References

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