

Grid-Based Surrogate Reservoir Model (SRM_G)

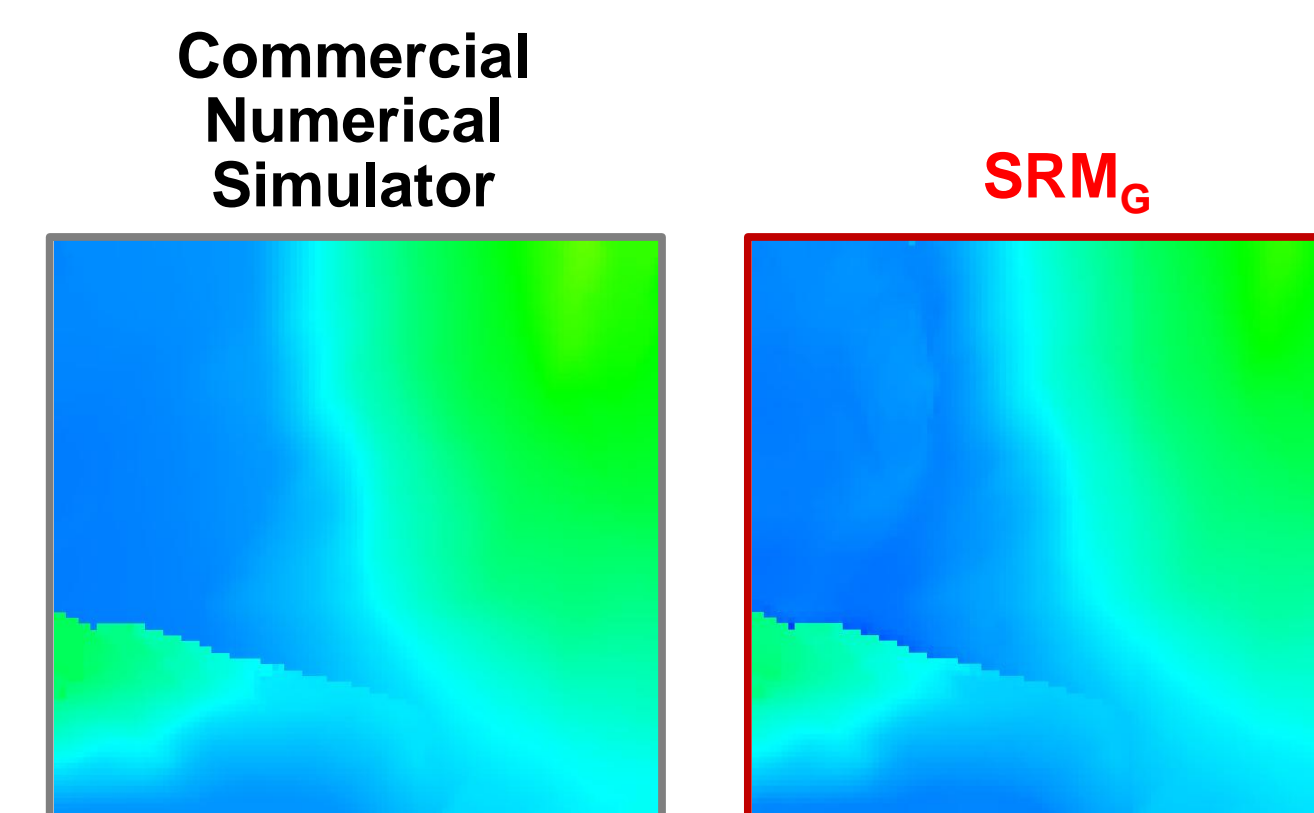
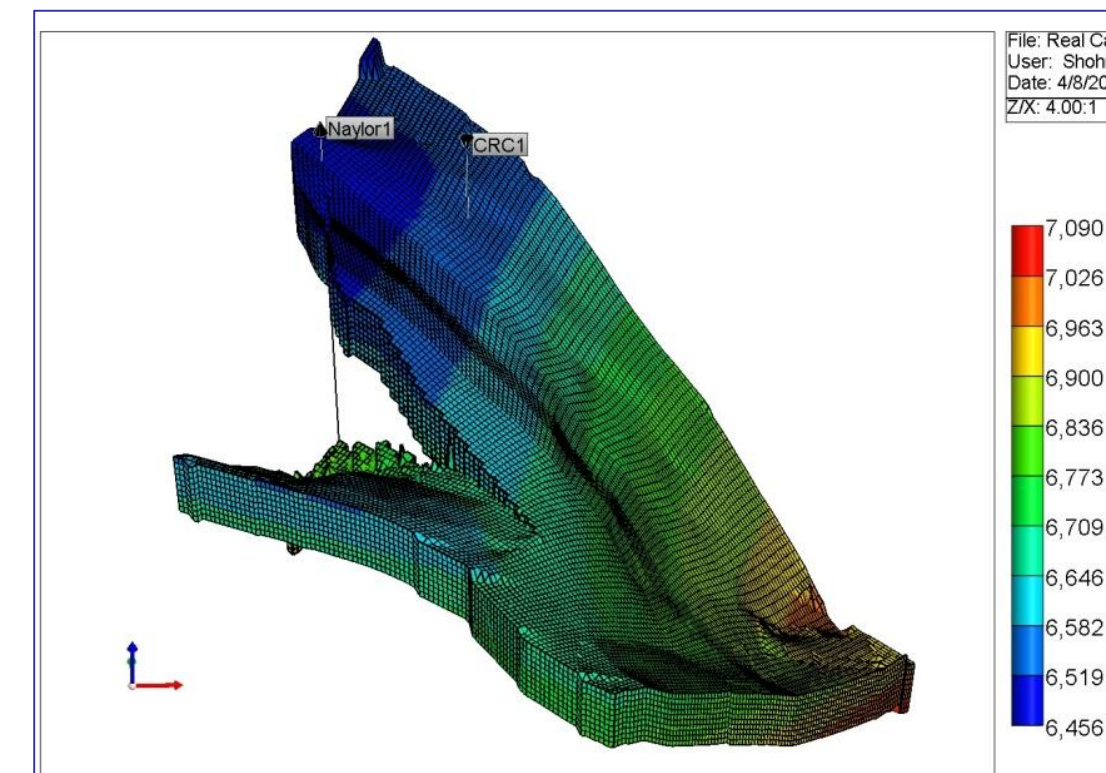
An Accurate, Cost-Effective Approach to Reservoir Simulation

Technology/Capability Overview

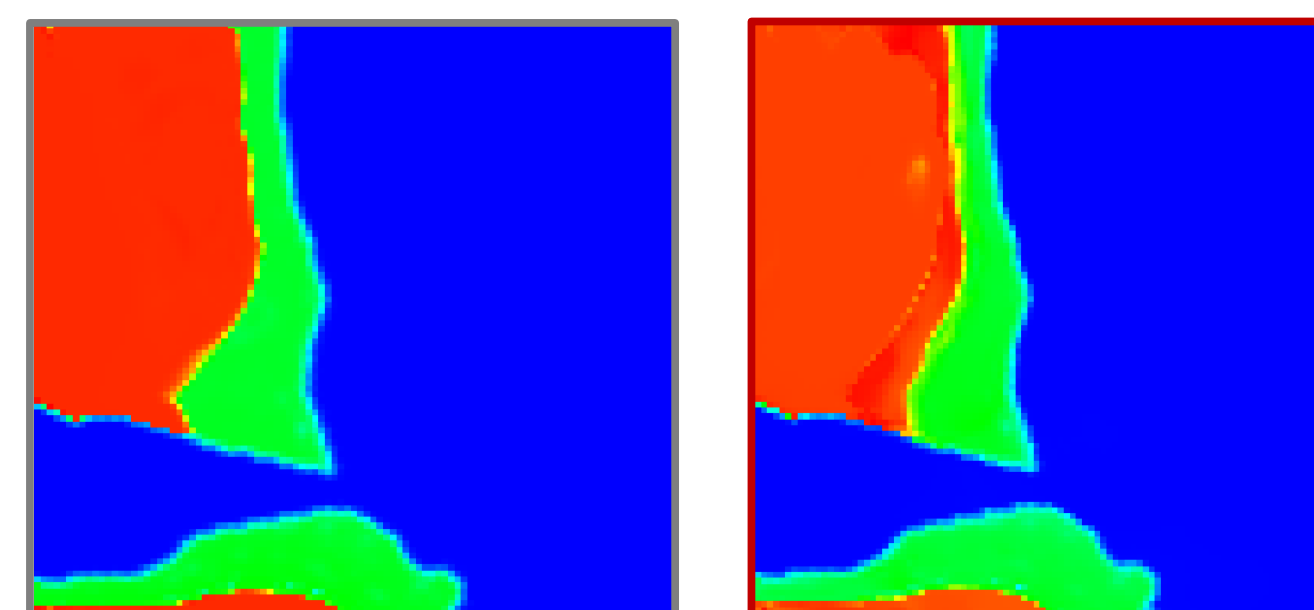
- Reservoir Simulation Models are the most reliable tool used by the industry in all aspects of decision making that involves reservoir management
- Although reasonably accurate, it take a long time to make a single run of the simulation models
- The long run-time makes it impractical to perform uncertainty quantification or to perform comprehensive search & optimization
- Grid-Based Surrogate Reservoir Models (SRM_G) makes it possible to perform large number of runs in short period of time without sacrificing the accuracy associated with the simulation models

Industry Significance

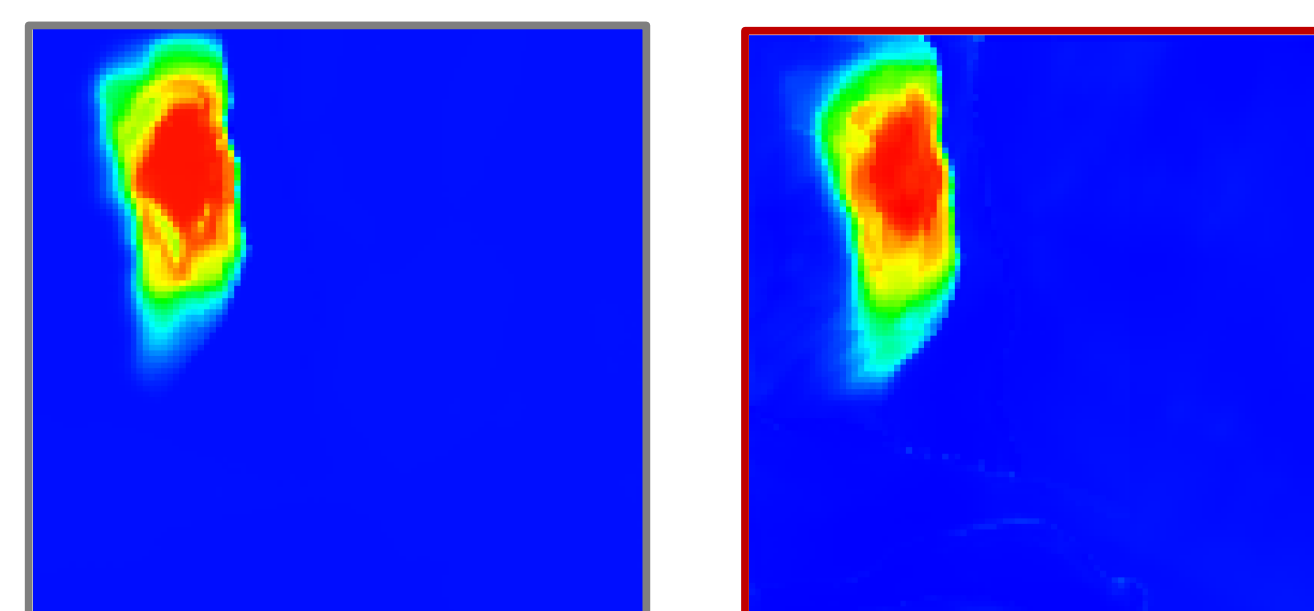
- Using SRM_G performing meaningful studies using large and complicated simulation models becomes practical
- No longer quality and size of comprehensive studies must be sacrificed in order to make such studies possible
- The technology can be applied to:
 - Reservoir Simulation Models
 - Computational Fluid Dynamic
 - Any other large and sophisticated numerical models



Pressure



Saturation



Mole Fraction

Benefits to Partner

- This is the only technology that can mimic the reservoir model behavior both through time and space in a Grid-Block level
- Once the surrogate reservoir model has been developed using this technology it can be used to forecast different scenarios by changing the related inputs

Opportunity

- Seeking opportunity to showcase the technology in multiple industries
- Seeking to provide service to companies that would benefit from such technology

Development Status

- Using existing software application
- Field testing application in oil and gas and environmental related industries

Contact

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