

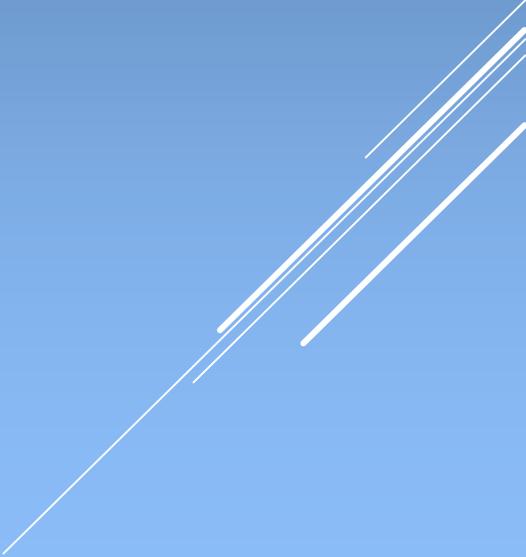
THE ROLE OF RESERVOIR SIMULATION IN MAKING DEALS

Dick Barden

Graphical Reservoir Modeling Corp.

PARTIES TO A DEAL

The parties to an oil & gas deal generally fall into one of the following categories:

- Those selling prospects
 - Those buying prospects
 - Those trading assets
 - Those who develop properties
 - Those who finance all of these activities
- 
- A decorative graphic consisting of several parallel white lines of varying lengths, slanted upwards from left to right, located in the bottom right corner of the slide.

WHAT IS A “GOOD DEAL”?

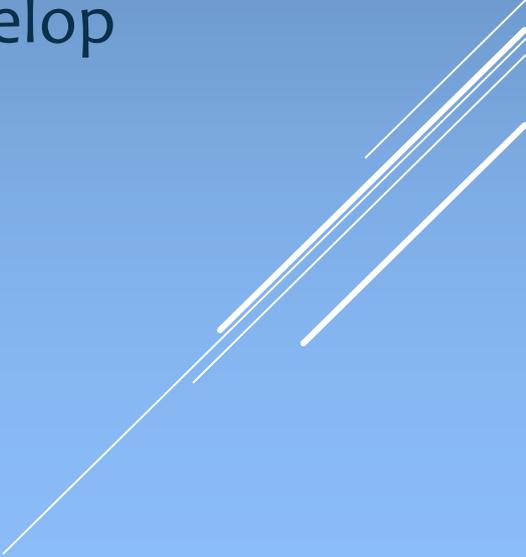
Everybody wants a “good” deal, but it’s often more difficult to define than you might think and even more difficult to *quantify*. Still, all parties want to feel that their deal will be both fair and profitable. Here’s the equation:

More Science = More Knowledge = Less Uncertainty =

Lower Risk = a Better Deal

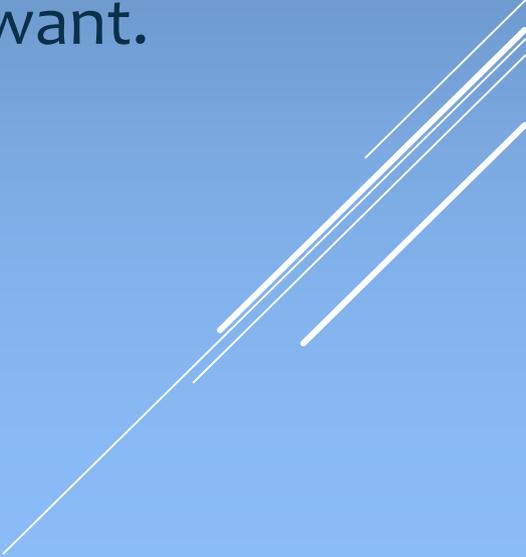
APPLYING BETTER SCIENCE

Put simply, this presentation will discuss how to apply the latest in rapid reservoir simulation technology to obtain a higher level of data and information about the oil and gas properties you're looking to sell, acquire, trade, develop or finance.

A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a light blue background.

FOR THE SELLER

If you're selling a prospect, the more science you apply to support your assertions of upside potential, the greater will be the credibility of your presentation, and the better your chances of selling the deal at the price point you want.

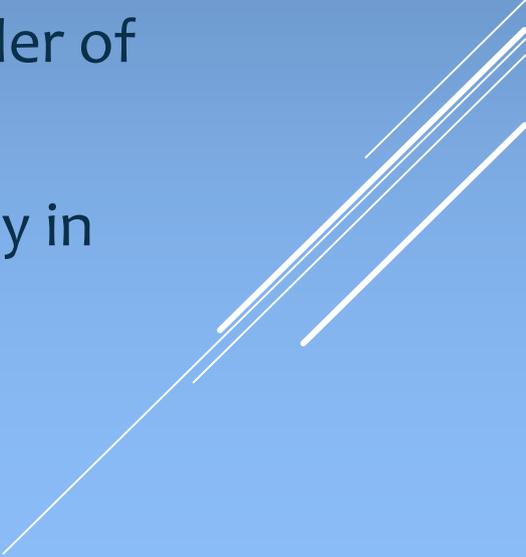


FOR THE BUYER

Buyers all want to get a good return on their investment. To do this, they need to know:

- the current reservoir pressure
- the remaining hydrocarbons in place, and
- A cost-efficient plan to drain the remainder of those recoverable reserves

That kind of knowledge would go a long way in helping them find and make better deals.

A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against the blue background.

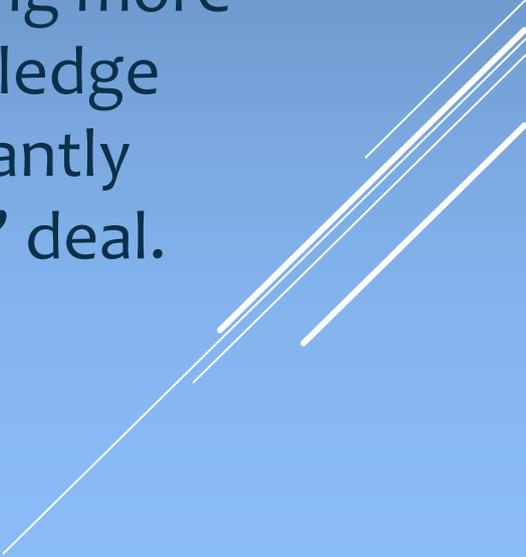
FOR THE FINANCER

Investment banks and other parties involved in financing these transactions want to know whether or not a deal is worth taking that risk:

- What is the current value of the asset being collateralized? The potential future value?
 - Is there a field development plan? Have well spacing & completion design been optimized?
 - Are the risks of such development reasonable?
- 
- A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a light blue background.

ALL PARTIES BENEFIT

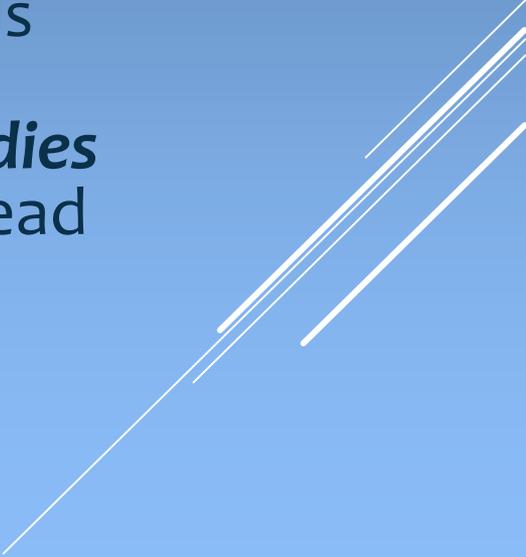
Traders and developers have similar concerns. Essentially, the more readily they can evaluate the quality of the wells and reservoirs in question, the easier it is for them to make better decisions. All parties to a deal will benefit by applying more science to obtain a greater level of knowledge about any prospect, and thereby significantly improve the chances of getting a “good” deal.

A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a light blue background.

FINDING ANSWERS

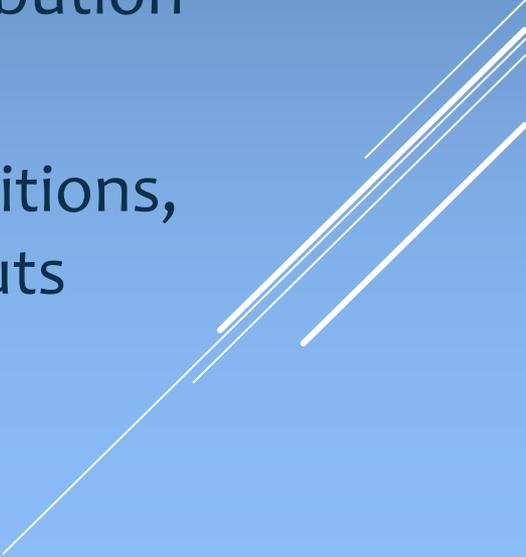
Reservoir simulation is the best tool for answering many of these questions, but it is rarely applied because it has often been expensive, cumbersome and very time consuming to use.

However, new *graphical* simulation tools allow *experienced consultants* to model wells and reservoirs so quickly, that ***studies can now be done in just a few days***, instead of many weeks or months.

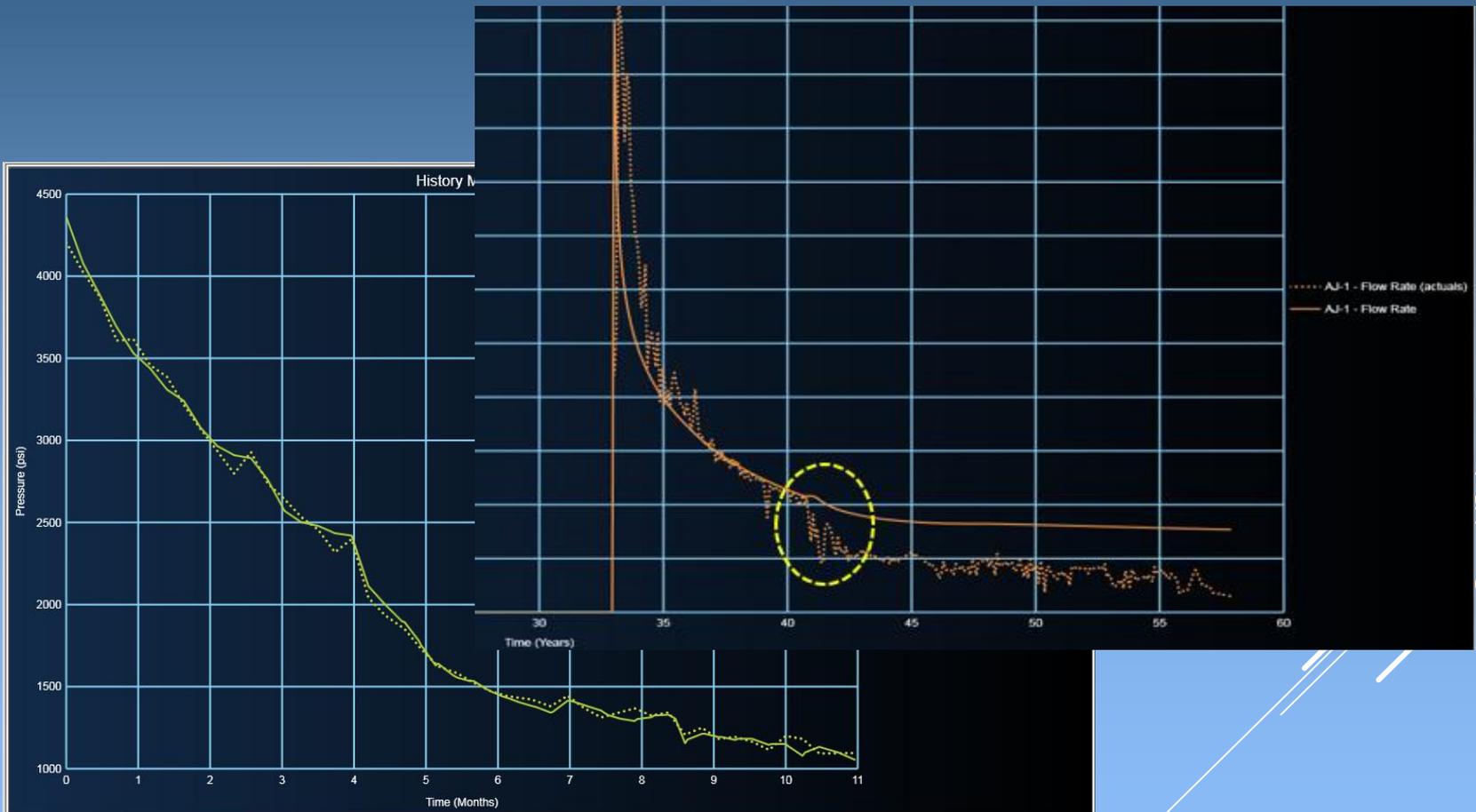
A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a light blue background.

WHAT CAN SIMULATION TELL YOU?

Evaluate Current Reservoir Conditions

- Use observed production data to “history match” existing wells and predict current material balance and pressure distribution throughout the reservoir
 - Identify unexpected boundary conditions, like faults and stratigraphic pinch-outs
- 
- A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, located in the lower right quadrant of the slide.

HISTORY MATCH & EUR:

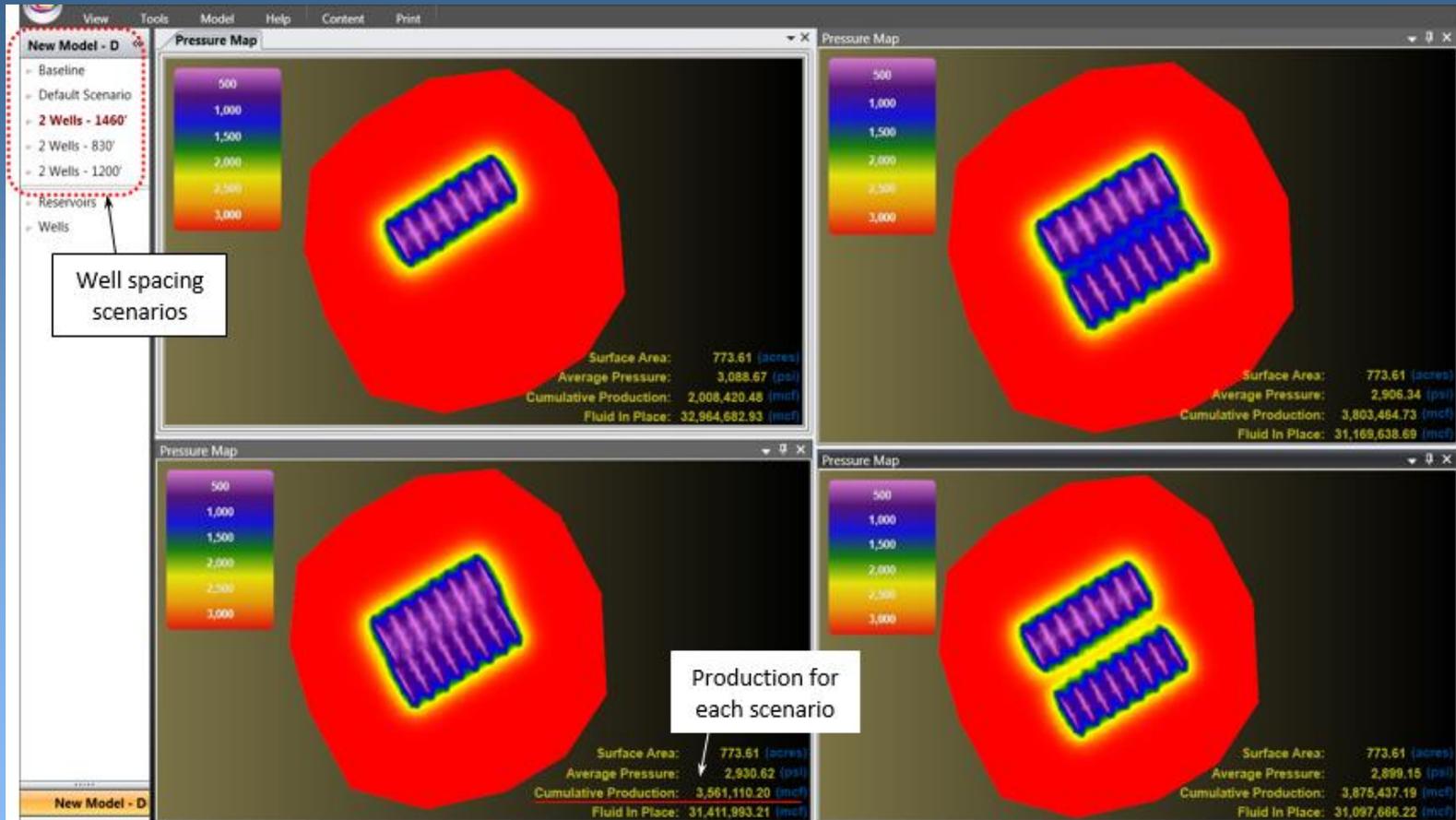


WHAT CAN IT TELL YOU?

Production Forecasts

- Identify optimum well spacing patterns
- Determine potential rates of production from infill wells, offset wells and recompletions
- Run long term EUR forecasts
- Generate maps that let you visualize drainage areas, pressure distribution in the reservoir and well-to-well, frac-to-frac pressure interference
- Quickly evaluate the viability of new prospects or properties considered for purchase or trade

OPTIMIZE WELL SPACING:

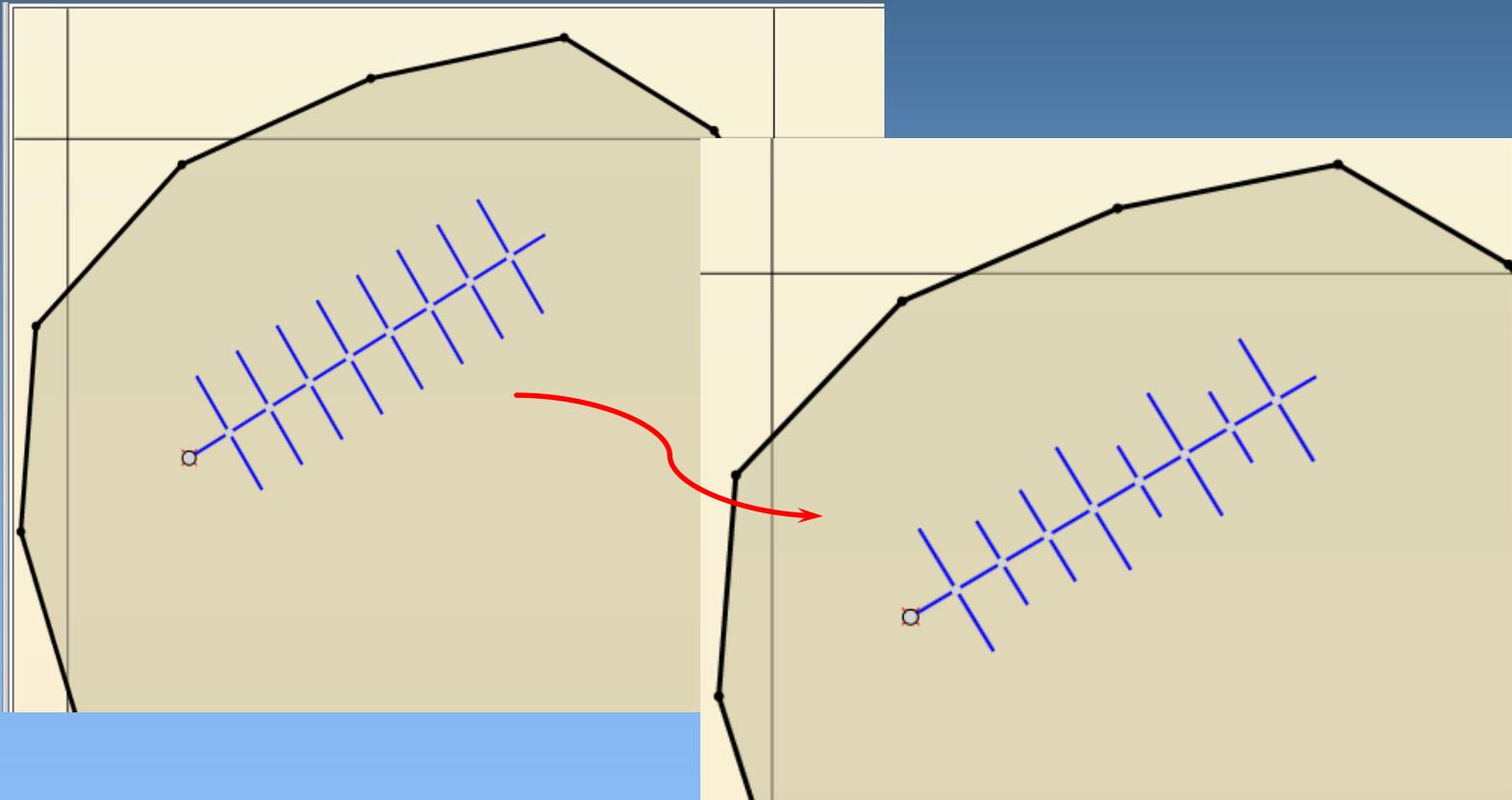


WHAT CAN IT TELL YOU?

Evaluate Multiple Completion Options

- Predict the economic viability of different types of completions:
 - Frac'd - *vary half-length, conductivity, direction*
 - Horizontal - *open hole or frac'd; vary frac spacing, etc.*
 - Complete in & produce from multiple zones
 - Change the completion over time
 - Identify re-frac & recompletion candidates
- 
- A decorative graphic consisting of several parallel white lines of varying lengths and orientations, located in the bottom right corner of the slide.

MODIFY COMPLETIONS:

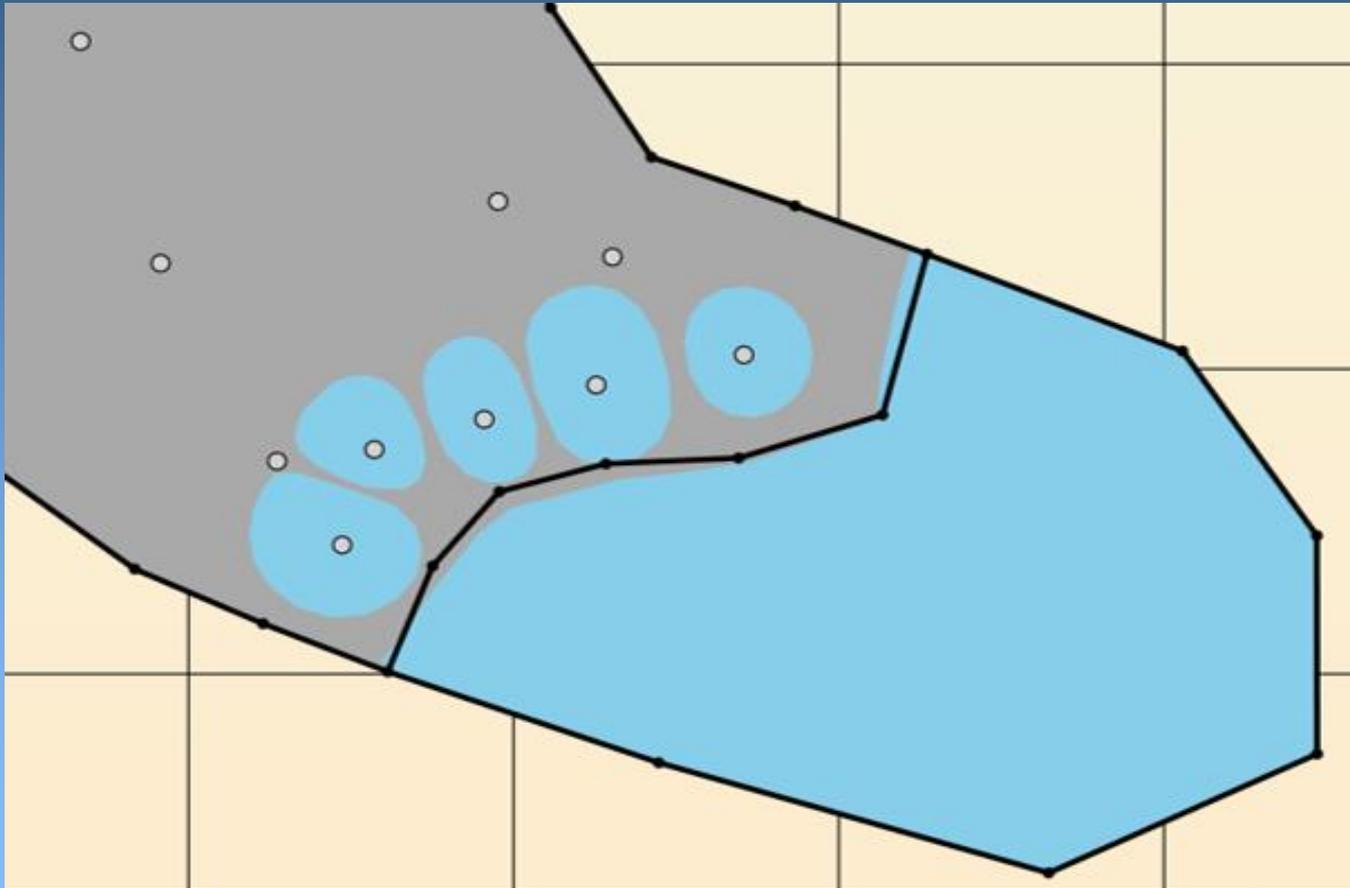


WHAT CAN IT TELL YOU?

Optimize Field Development

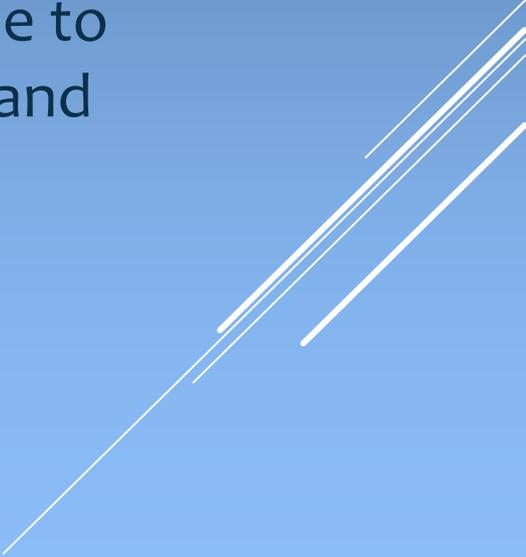
- Evaluate the benefits of injection wells, water floods and enhanced recovery options
 - Visualize the reservoir drainage patterns for different field development strategies
 - Eliminate unnecessary wells by optimizing completions and drilling spacing
 - Predict cash flow, ROR and time to payout for new wells or work-over procedures
- 
- A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a light blue background.

TRACK WATER FRONTS:



TIMELY INFORMATION

The new, graphical, rapid reservoir modeling tools can address each of the foregoing issues in a very short period of time using ***ordinary rate, pressure and reservoir data***, i.e. *the* basic well and field data that is typically available to virtually every operator in North America and much of the world.

A decorative graphic consisting of several parallel white lines of varying lengths, slanted upwards from left to right, located in the bottom right corner of the slide.

APPLICABILITY

This science can be applied quickly and reliably to any well or group of wells, and to any reservoir or group of reservoirs, for any prospect. And it can answer all the most important field development questions in a timely, cost-effective manner.

These are all compelling reasons for any party to O&G deals to avail themselves of this technology to gain significantly more knowledge about the properties they are looking to sell, purchase, trade or finance.

A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a light blue background.

SUMMARY

With clear advantages accruing to all of the parties to any transaction involving oil & gas properties

The use of rapid reservoir simulation can significantly reduce risk and improve everyone's ability to evaluate deals

A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a light blue background.

for more information, contact:

Dick Barden

Graphical Reservoir Modeling Corp.

PO Box 848, Granbury, TX 76048

303-570-6382

info@grm-daedalus.com

