Pipe-It’s Reservoir to Network Integration Solution consistently connects any reservoir model(s) with pipeline network models to account for surface constraints. This allows you to optimally adjust reservoir rate controls enabling effective production management.

Determine the actual production from each well at every time step, while honoring all network and reservoir constraints. Achieve a more reliable forecast of the field production.
CHALLENGE:
Maximize Production in Fields with Complex Pipeline Networks

Rates simulated from reservoir models do not account for numerous constraints in the surface pipeline network and often bottlenecks are encountered during actual production.

Reservoir management involves setting rules for well and group rates as a function of time to ensure best possible recovery from an asset. These rules can conflict with the production network system, resulting in lower than expected production.

SOLUTION:
Use Pipe-It’s Reservoir to Network Integration Solution to bridge the gap by evaluating the surface constraints at user-defined time steps and updating the model well and group controls accordingly to achieve a better forecast for the field, incorporating surface limitations.

<table>
<thead>
<tr>
<th>Features</th>
<th>Value delivered</th>
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<tbody>
<tr>
<td>Sustainable solution for more rigorous production forecasts.</td>
<td>Reduce risk and uncertainty</td>
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<td>Multiple reservoir models with varying fluid properties are consistently integrated with a common production network model.</td>
<td>• Identify problem wells and bottlenecks in the production system.</td>
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<td>Consistent data transfer from reservoir model to production network model.</td>
<td>• Study how uncertainty in future reservoir output affects the production network.</td>
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Requirements

- Reservoir simulation models (any existing commercial or in-house simulator)
- Production network simulation models (any commercial or in-house simulator)
- Well models or VLP tables

- Maximize production while honoring production network constraints
  - Understand how changing conditions upstream affect downstream systems.
  - Optimize field development strategy.

- Save time through automation