**About Petrolink**

Petrolink provides wellsite data management, real-time data solutions, engineering analytics and drilling optimization services to the upstream oil and gas industry worldwide. Petrolink offers unmatched security and an independent neutral link across the oilfield, data sources, disciplines and partners to enhance drilling operations’ efficiency and safety.

**ROP Optimization**

Drill faster, safer and more efficiently with our ROP (rate of penetration) Optimization tool. This state-of-the-art system captures information from the actual well and offset wells in real-time, gains the optimal parameters and applies the best scenario live, while you’re drilling. It lets you plan ahead of the bit for any event, so you get the best ROP and the best results in real time.

 Benefit from a Real-Time Predictive Roadmap that allows you to:

- Optimize progress (drill faster, within safe parameters)
- Track “drilling risks”
- Correlate in real-time (live and historical)
- Use lessons learned and best practices in real-time
- Plan for better string components

The ROP Optimization tool uses the real-time data such as WOB (weight on bit), RPM (rotation per minute), torque and differential pressure to validate and calibrate rig input values that control safe and optimum operations based on MSE (mechanical specific energy), vibration, string components, rig capabilities and lithology.
ROP Optimization

Real-Time User Interface example combining the main parts shown on the workflow

Petrolink's ROP Optimization Tool features:
- User-friendly interface
- Flexible widgets
- Customizable settings
- 24/7 support

The model and workflow described below are used to generate reference data for a correlation. The filters will then be applied to the data set selected in order to recommend the best scenarios.

- Group and compute the intervals using data and models from: Lithology / String / Rig / Bit
- Apply the criteria for the real-time learning captures for the actual scenario from the reference data
- Apply the criteria for the real-time learning captures for the actual scenario from the reference data using multiple filters
- Apply the captured learning and the recommended parameters at the bit
- Evaluate the applied parameters at the bit versus the recommended ones
- Compute the adjustments required to maximize time savings and cost per foot
- Compute best scenario to be used as projection
- Compute time savings and cost per foot