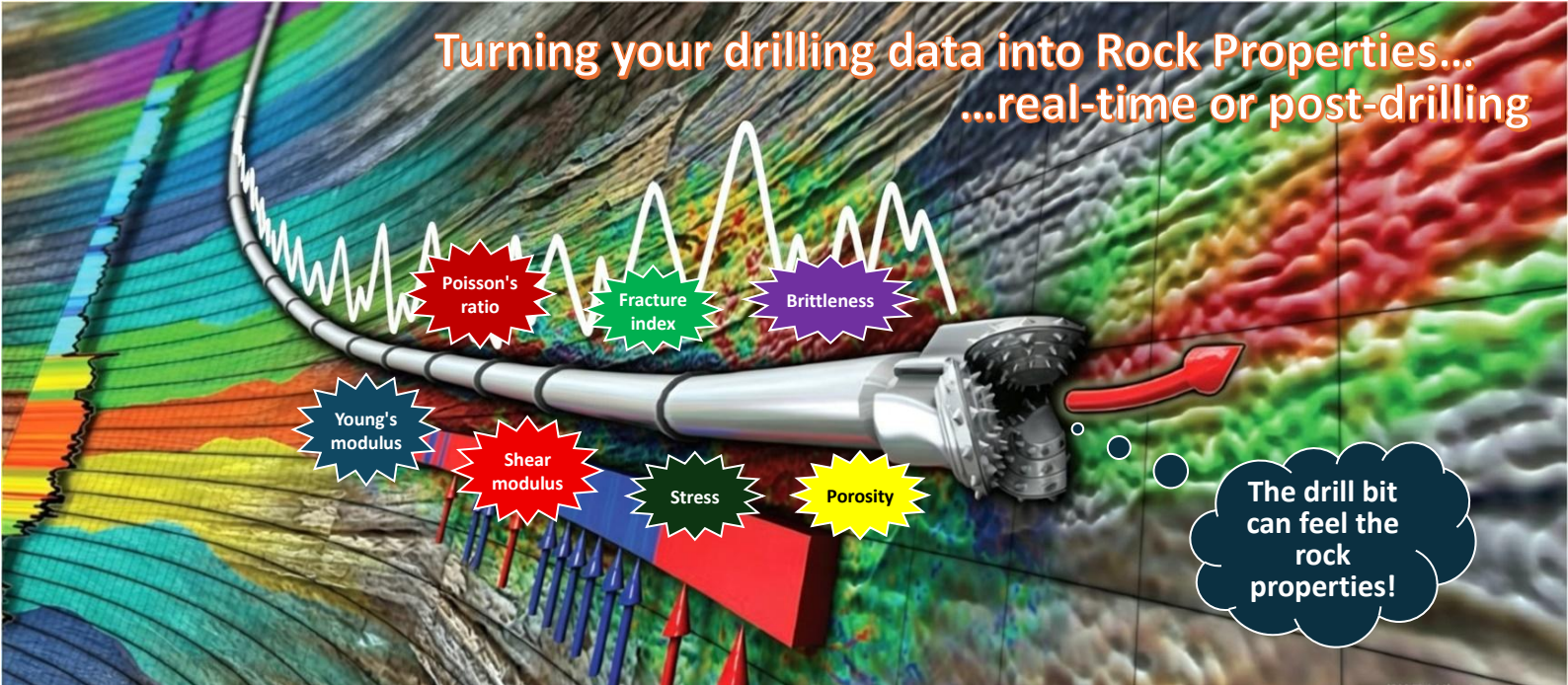


Turning your drilling data into Rock Properties...
...real-time or post-drilling



DrillPredictor

Rock Mechanical Properties Near Wellbore Derived from Drilling Data

No Extra Tools, No Well Logging, No Extra Costs!

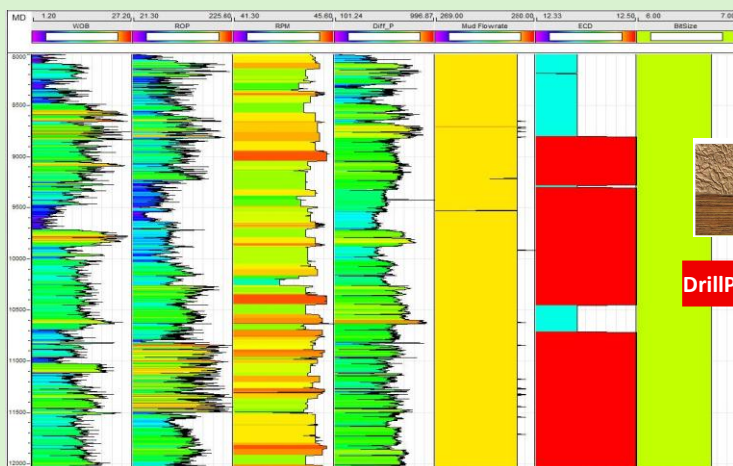
Our technology converts real-time or post-drilling data into continuous wellbore rock mechanical properties to be used to optimize completion and perforation design.

What the drill bit sees:

- Intrinsic mineralogy of the rock
- Micro-fracture fabric
- In-situ stresses and pore-pressures
- Young's modulus, Poisson's ratio, Shear modulus, Porosity, Fracture index, Stress, brittleness, etc. can be derived from drilling data



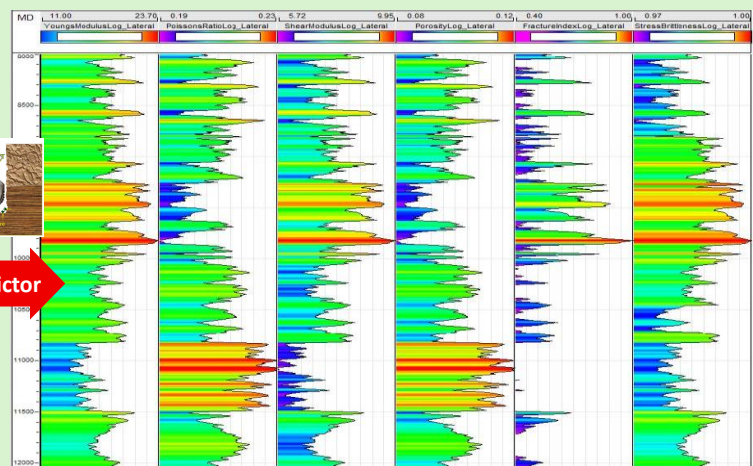
A real case: Converting Drilling Data to Rock Mechanical Properties:



Input Data: WOB, ROP, RPM, Diff_P, Mud Flowrate, ECD, Bitsize.

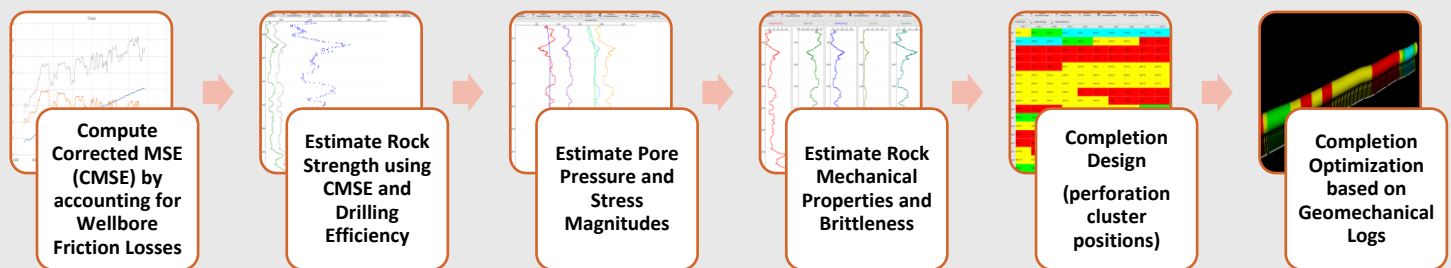


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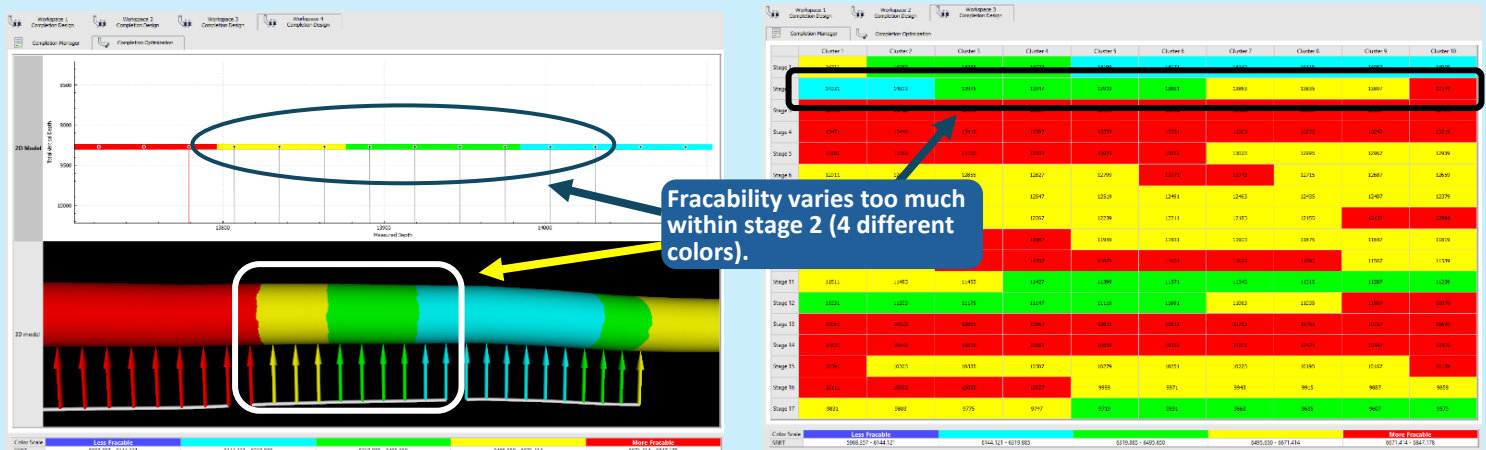


Output Data: Young's modulus, Poisson's ratio, Shear modulus, Porosity, Fracture index, Stress brittleness.

DrillPredictor Workflow:



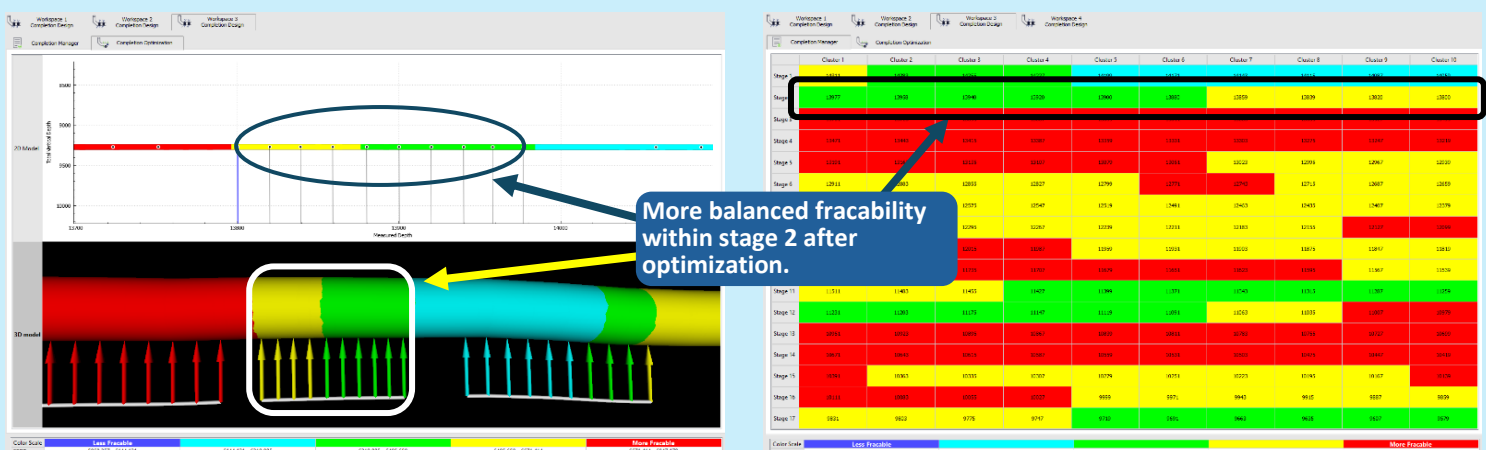
Completion optimization using Rock Mechanical Properties. Initial design:



In the completion matrix shown on the right, rows stand for fracturing stages and columns for perforation clusters; color coding illustrates rock fracability based on MSE, Young's modulus and other geomechanical parameters. Consistent fracability across all clusters in one stage is essential to deliver effective stimulation.

Stage 2 in its original design suffers extreme fracability heterogeneity, displaying four colors that signify four separate fracability grades. Fracturing energy will thus converge toward easily fractured clusters, creating unwanted primary fracture channels instead of a broadly distributed fracture mesh.

After automatic optimization by DrillPredictor:



Post-optimization, Stage 2 merely contains two fracability grades (green and yellow) with adjacent color blocks and highly similar geomechanical property values.

We offer software licensing and project services. Please contact us.



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