



UNCONVENTIONAL SUBSURFACE INTEGRATION

TBPE FIRM LICENSE No. F-19924

THE NEW FRONTIER IN SHALE ASSESSMENT

SCIENCE-BASED FORECASTER

- **Better:** reliable results based on industry-leading simulation application CMG vs black boxes/over-simplified models in RTA, ML and DCA.
- **Faster:** provides history match outputs in minutes vs weeks/months building analytical and numerical models
- **Cheaper:** thousands vs millions in total costs (skilled labor, time, resources, and infrastructure)



FORECASTING
FUNDAMENTAL



OPERATIONAL
EXCELLENCE



WELL PLANNING
OPTIMIZATION

UNCONVENTIONAL SUBSURFACE INTEGRATION

RESERVOIR PARAMETERS

WELL DEPTH
RESERVOIR THICKNESS
PI
PRESSURE GRADIENT
PB

WELL COMPLETION SPECIFICATION

WELL SPACING
LATERAL LENGTH
PERF CLUSTER SPACING
CLUSTER
FRAC STAGE
CUSTOM BHP/DRAW DOWN
PROFILES

ROCK & FLUID PROPERTIES

MATRIX PERMEABILITY
MATRIX POROSITY
SWI
ROCK COMPRESSIBILITY
OIL DENSITY
GAS GRAVITY
RELATIVE PERMEABILITY
PVT TABLES
Kz MULTIPLIER
NF SPACING
NF PERMEABILITY

PLANAR HYDRAULIC FRACTURE SPECIFICATION

HF PERMEABILITY
HF POROSITY
HF COMPACTION
HF SWI
FRACTURE HALF-LENGTH
FRACTURE HEIGHT
SRV NF WIDTH
SRV NF PERM
NFZ MATRIX PERM
MULTIPLIER

CRITICAL BUSINESS INSIGHTS WITHIN MINUTES

