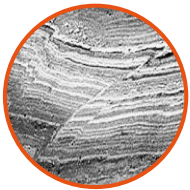




Oil & Gas Service Partnership

WE HELP YOU IMPROVE YOUR RESERVOIR MODEL AT EACH STEP OF THE MODELING PROCESS



STRUCTURAL MODEL

DATA QUALITY CONTROL

- We do** Advanced data analysis for identification of outliers, local anomalies and seismic acquisition footprints
- We use** Statistics and advanced variogram/variogram cloud analysis
- You gain** **Improved reservoir knowledge**
Improved model quality

SEISMIC PROCESSING

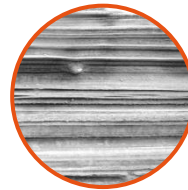
- We do** Filtering of acquisition or processing artefacts (white noise or structured artefacts)
- We use** Factorial kriging
Multivariate variography and cokriging
- You gain** **Facilitated velocity picking**
Improved velocity cube quality

MERGING OF SEISMIC CUBES

- We do** Seismic data assimilation accounting for priority rules
- We use** Kriging
- You gain** **Consistent regional seismic cubes**

TIME-TO-DEPTH CONVERSION

- We do** Mapping with assimilation of all available data, certain or uncertain, including horizons and faults
- We use** Kriging and simulations using filtered velocity cubes
- You gain** **Optimized depth maps with uncertainty assessment**



STRATIGRAPHIC MODEL

DATA QUALITY CONTROL

- We do** Advanced data analysis for identification of outliers and local anomalies
- We use** Statistics and advanced variogram/variogram cloud analysis
- You gain** **Improved reservoir knowledge and model quality**

STRATIGRAPHIC UNIT DEFINITION

- We do** Accurate definition of stratigraphic units limits
- We use** Vertical Proportion Curves and experimental variograms
- You gain** **More robust sequence stratigraphy interpretation**

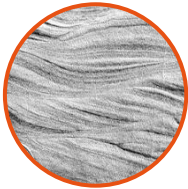
CORRELATION ANALYSIS

- We do** Accurate definition of stratigraphic units internal layering
- We use** Vertical Proportion Curves and experimental variograms
- You gain** **Realistic and consistent units internal layering**



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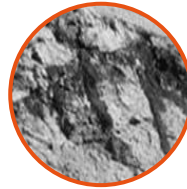
SEDIMENTOLOGICAL MODEL

SEDIMENTOLOGICAL CONCEPTUAL MODEL QUANTIFICATION

- We do** Characterization of geological trends
Conditioning to seismic 2D maps
- We use** Local Vertical Proportion Curves (VPCs)
Advanced algorithms for facies proportion 3D models calculation from local VPCs and seismic data
- You gain** **Realistic facies distribution**

GEOLOGICAL MODELING

- We do** Lithofacies and geological objects modeling
Diagenesis modeling
- We use** Wide range of facies simulations methods:
– SIS, TGS, Plurigaussian Simulations
– MPS (with training images)
– Meandering channel modeling with FLUMY (process-based algorithm)
– Sophisticated workflows combining several simulation methods
- You gain** **Ability to model most of the geological environments**



FLUID FLOW MODEL

PETROPHYSICAL MODELING

- We do** Modeling of complex porosity and permeability trends within rock-types, including border effects
Characterization and modeling of spatial correlations between porosity and permeability
- We use** Kriging with external drift, cokriging and cosimulations
- You gain** **Accurate modeling of porosity and permeability**

STATIC MODEL POST-PROCESSING

- We do** Calculation of connected geobodies
Model conditioning to the presence of permeable pathways between wells
- We use** Information acquired from stochastic realizations (simulations)
- You gain** **In-depth control of static models**
Efficient history matching