



**«ADVANCED WELL TEST DESIGN AND ANALYSIS (OIL)», 5 days**

**COURSE OBJECTIVE:**

Improvement of professional competencies of petroleum engineers in sphere of:

- well testing and acquired data interpretation with use of Saphir (KAPPA) / Pan System (Weatherford) software,
- information support,
- prompt supervising of field development,
- cost cutting for inefficient sampling and testing.

**ACQUIRED ABILITIES:**

- plan priority, content and quantity of well testing according to tasks of design supervision;
- specify optimal testing solutions for field tasks;
- efficiently plan priority and duration of well testing;
- implement interpretation of study in terms of uncertainties;
- apply testing results for well intervention planning and field development modeling with account for its validity.

**COURSE CONTENT:**

<b>Module Name</b>	<b>Content</b>
Well testing in system of formation data and field management	Input data for geological modeling. Data of various sources and its interpretation in geological modeling. Review of well test theory.
Hydrodynamic well testing at complex wells	Horizontal well productivity, external boundary, operating length. Testing solutions for multiple-stage wells intervention, multihole wells. Main flow regimes, connection with well and formation parameters.
Well testing design	Numerical simulation. Well test planning. Methods and technology selection.
Unconventional well test	Continuous pressure recording. Deconvolution at wells with permanent systems. Mini-fracturing. Slag-test (well testing, result interpretation).
Interpretation “pitfalls”	Complicated interpretation cases. Models ranging. Analysis and processing of input data.
Interference test	Theory, equipment and well requirements. Design of well interference testing. Result interpretation. Case study.