Best Technology Solutions **BTS**

Integrated Reservoir & Production Analysis Solutions Training Program

Introduction:

Clear understanding of the reservoir is essential to successful field development. Proper management of reservoirs requires an integrated multi-discipline team approach to ensure discovered or producing oil and gas assets are operating at optimal levels. This course offers specialists a change to broaden their knowledge to encompass other disciplines and skills. The candidates will understand the high-level objectives of the business and obtain a wide knowledge of available resources which will lead to the selection of the most appropriate solutions.

Who Should Attend?

Geologists, Geophysicists, Reservoir Engineers, Production Engineers, Petrophysicists, Petroleum Engineers, Drilling Engineers, Field Development Engineers, Managers, Asset Managers, Oil & Gas Engineers, Reservoir Operators, Surveillance Engineers, Technicians, Engineering Trainees, Technical Managers, Technical Assistants, Technicians, Chemists, Physicists, Technical Supervisors, Service Company Personnel responsible for improving the performance of petroleum reservoirs, engineers who are involved in wellbore simulation, reservoir analysis, production analysis, and field optimization.

Course Objectives:

By the end of this course, delegates will be able to:

- Have a deep understanding how to reach successful field development
- Understand an integrated multi-discipline team approach to broaden their knowledge to encompass other disciplines and skills ensure discovered or producing oil and gas assets are operating at optimal levels
- Obtain a wide knowledge of available resources which will lead to the selection of the most appropriate production solutions

Course Outline:

- Integrated analysis
- Systems analysis and thinking
- Reservoir analysis study paths
- Construction and management of an integrated database
- Information synthesis
- Reservoir characterization
- Geology
- Geophysics
- Geologic model
- Engineering studies
- Sources of geologic and engineering data
- Well testing
- Numerical simulation
- Reservoir monitoring and production engineering
- Reservoir management
- Geostatistics
- Environmental evaluation
- Oil and gas resource terminology
- Reserves and resources
- Occurrence of petroleum
- Origin and evolution of oil
- Reservoir traps
- Migration and accumulation of hydrocarbons
- Unconventional oil and gas
- Resource base for oil and gas
- Integrated reservoir model
- Stages of field development
- Sources of data
- Geophysical data
- Geological data
- Engineering data

- Resolution of data conflicts
- Reservoir engineering
- Drive mechanisms
- Risk analysis in the petroleum industry
- Risk engineering - converting risk into opportunity
- Risk analysis
- Decision analysis tools
- Developing a plan
- Data acquisition and analysis
- Economic optimization
- Elements of success and failure in field development plans
- Management team
- Integration of geosciences and engineering
- Reservoir simulation
- Market conditions
- Business environment
- Intelligent systems
- Artificial neural networks
- Comparison of hard computing and soft computing
- Neuro-simulation methodology
- Developing a plan
- Example application - infill drilling planning