



New Opportunities in Old Fields - NOF

COURSE

About the Course

Don't buy or sell a producing property before taking this course! There is nearly always upside in mature oil and gas fields that may be particularly profitable because of existing wells and infrastructure. The keys to successful exploitation of new opportunities include:

1. Recognition of the new opportunities
2. Quantification of the reserves
3. Evaluation of alternative methods of exploitation
4. Economic analysis of depletion scenarios

Case studies and class problems address each of these key items and illustrate how new opportunities can be recognized and evaluated for many different types of oil and gas reservoirs. The computer-based problems will provide the delegate with utility programs and solution templates that can be used in the real world. Appendix Topics: additional information for student reference or class review as appropriate, including decline curve analysis, rock and fluid properties, material balance, fluid displacement and coning, and reservoir simulation.

This course covers conventional reservoirs.

"I really enjoyed hearing information on CO₂/WF operations and NOF opportunities because that is currently the type of assets I work. I liked the problems and getting to work in groups. I really enjoyed the class and learned a lot from it as well as the fellow people in the course." - Production Engineer, Midland, United States

"The collaborative nature of the course set it apart." - Production Engineer, Houston, United States

Target Audience

Reservoir and production engineers, development geoscientists, asset team leaders, acquisition and divestiture managers, and other technical personnel involved in evaluation and exploitation of reserves in mature fields.

You Will Learn

Participants will learn how to:

- Recognize production and reservoir characteristics of old fields that indicate the potential for increasing reserves and value
- Understand whether existing recovery factors are consistent with those that can be realized with effective utilization of the natural drive mechanism(s) and the appropriate use of improved recovery methods
- Identify under-performing wells or field areas and recommend appropriate intervention
- Determine the upside potential of a field, distinguishing between incremental reserves and reserve acceleration
- Examine alternative re-development strategies by studying case histories and working example industry problems

Course Content

- Why Opportunities Emerge: nature of reserves growth; operating practices and their effect on new opportunities; the contribution of evolving technology
- Recognizing Opportunities: reservoir characteristics and production performance indicative of new opportunities, unraveling limited data, linking operator practices to new opportunities
- Reserves versus Upside Potential: review of reserve classification, risk assessment, value of new information, data quality control and integration
- Reservoir Heterogeneity and New Opportunities: categories of heterogeneity and their implications for new opportunities, reservoir compartmentalization, application of 3D seismic in old fields, identification of net pay, fractured reservoirs
- Exploitation Opportunities: reservoir enhancement through fluid injection, redevelopment of mature waterfloods, infill drilling, its utility, application, and value; horizontal and multilateral wells including their use in displacement projects, re-completions in stratified reservoirs, de-bottlenecking gathering systems, produced water management, co-production of water for improved recovery

Product Details

Categories: [Upstream](#)

Disciplines: [Reservoir Engineering](#)

Levels: [Specialized](#)

Product Type: [Course](#)

Formats Available: [In-Classroom](#)

Instructors: [PetroSkills Specialist](#) [Iskander Diyashev](#) [Stanley Kleinsteinber](#)