



## Evaluating and Developing Heavy Oil Resources - HOED

### COURSE

#### About the Course

This course is largely designed for geoscientists or engineers with a need to advance their understanding of heavy oil/in-situ oil sands resources. Beginning level concepts are covered and widely focused enough to appeal to a broad audience seeking an introduction to the business of heavy oil/in-situ oil sands including non-technical, administrative, and business groups. However, more technically advanced topics are also covered, for which students are generally expected to have a broadly based technical foundation for understanding. Heavy oil/in-situ oil sands provide a large potential supply of the world's oil resource. Cold production, oil sands mining, and in-situ thermal production methodologies are important contributors to the world's oil production. These technologies are reasonably recent commercial applications, and the future levels of production faces uncertainty because of highly debated environmental and technical challenges.

The course takes an unbiased practical approach to the applications, citing benefits and limitations. The course provides an overview and details of specific occurrences of the geology, evaluation, development, and commerciality of heavy oil/in-situ oil sands resources. Each attendee should come away with a great foundational knowledge of the business of evaluating and developing heavy oil resources. The course contains actual producing fields examples to support the presentation.

#### Target Audience

Anyone from any discipline who needs a better understanding of heavy oil/oil sands resources, but more specifically designed for geoscientists or engineers with a need to better understand the challenges of evaluating and developing heavy oil/oil sands resources.

#### You Will Learn

Participants will learn how to:

- Evaluate and develop heavy oil/oil sands resources
- Understand the importance of heavy oil/oil sands resources in today's world energy market
- Contrast heavy oil/oil sands resources as compared to conventional and other unconventional resources with aspects of finding, developing, and producing
- Understand the geology, critical attributes, and commerciality of the Canadian heavy oil/oil sands
- Collect the appropriate data and evaluate the critical geologic and reservoir parameters of various types of heavy oil/oil sands resources

- Recognize and evaluate the environmental challenges required to develop and produce heavy oil/oil sands resources
- Understand the process and methodology to evaluate, select, plan, design, and implement a heavy oil/oil sands recovery project
- Become knowledgeable of the worldwide distribution and geologic setting of the more significant heavy oil occurrences including Venezuela

## Course Content

- Bitumen and heavy oil introduction and definitions
- Comparison of conventional and unconventional reservoirs
- Worldwide heavy oil/oil sands resources and occurrences
- Geology and overview of Venezuela and Trinidad heavy oil resources
- Introduction of United States heavy oil occurrences (Utah, California, and Texas)
- Geology, history, and development of Canada heavy oil/oil sands
- Heavy oil/oil sands characteristics and development strategies
- Oil sands mining details and reclamation
- Environmental challenges for oil sands resources
- Heavy oil and in-situ oil sands recovery process review
- Introduction to Steam Assisted Gravity Drainage (SAGD)
- Other commercial thermal in-situ methodologies
- Commercial application of Cold Heavy Oil Production with Sand (CHOPS) in Canada and other non-thermal heavy oil recovery methods
- Field examples and development strategies of heavy oil and in-situ oil sands recovery projects
- Overview of thermal well completions and production facilities
- Reserves and economics

## Product Details

Categories: [Upstream](#)

Disciplines: [Multi-Discipline Training](#)

Levels: [Foundation](#)

Product Type: [Course](#)

Formats Available: [In-Classroom](#)

Instructors: [Gary Massingill](#)