

Mitigating Bias, Blindness, and Illusion in E&P Decision Making (2-Day Course)

Description

Decisions in E&P ventures are affected by Bias, Blindness, and Illusion which permeate our analyses, interpretations and decisions. This two-day course examines the influence of these cognitive pitfalls and presents techniques that can be used to mitigate their impact. *Bias* refers to errors in thinking whereby interpretations and judgments are drawn in an illogical fashion. *Blindness* is the condition where we fail to see an unexpected event in plain sight. *Illusion* refers to misleading beliefs based on a false impression of reality. All three can lead to poor decisions regarding which work to undertake, what issues to focus on, and whether to forge ahead or walk away from a project.

This course begins by examining the types of bias, blindness, and illusion that affect us. Exercises, videos, examples, and discussions help illustrate how these manifest themselves in our daily activities and professional assessments. We then address their role in the Oil and Gas industry by presenting case studies that show their impact on decision-making and asking course participants to identify what types of cognitive errors contributed to the project outcomes. This is followed by a real-world exercise using project data to give participants practice in addressing and mitigating bias, blindness, and illusion in their technical work. The course concludes by presenting a summary 'toolkit' with mitigation techniques that can immediately be applied to project work and decisions.

Course Outline

1. Introduction
2. Blindness and Illusion
 - a. Perceptual Blindness
 - b. Illusion of Knowledge, Potential, and Objectivity
3. Bias
 - a. Anchoring, Availability, Confirmation, Framing, Information, and Overconfidence Bias
 - b. Motivational Bias
4. Case Studies (a relevant subset of these will be presented)
 - a. Plio-Pleistocene Sandstone (Exploration Well)
 - b. Cambrian Sandstone (Field Appraisal)
 - c. Pliocene Sandstone (Exploration 'Drill or Drop')
 - d. Jurassic Sandstone (Exploration License Round)
 - e. Cretaceous Shale (Field Appraisal)
 - f. Cambrian Sandstone (Field Appraisal)
5. Real-World Exercise (a relevant one will be presented)
 - a. Triassic sandstone, structural play (Exploration Well)
 - b. Fractured carbonate, waterflood potential (Field Appraisal)
6. Summary 'Toolkit'

What Participants are Saying...

New concepts and materials--lightbulb moment!

Resonates through all of what we do

Powerful use of industry examples

Realistic exercises reinforce theory and concepts

These 'new' tools will be part of my everyday thought process and interactions

Recommended for all geoscientists, engineers, commercial groups and managers

Excellent class; exceeded my expectations by far

Instructors

Marc Bond (MSc Geophysics, Colorado School of Mines) is a Senior Associate with Rose & Associates and specializes in exploration and appraisal assessments. He is actively involved in ensuring that the technical work underpinning an evaluation has appropriately reflected the opportunity and captures both the uncertainty and risk, leading to effective decision-making. He has over 35 years' international experience in the oil and gas industry. Previously he worked for BG Group and Tenneco Oil where he held a variety of management and technical assignments, with his most recent roles including: Chief Geophysicist; Subsurface Assurance Manager for conventional and unconventional exploration, appraisal and development projects; and Exploration Manager Bolivia.

Creties Jenkins (P.E., P.G.) is a Partner with Rose and Associates and specializes in the characterization of unconventional reservoirs. Over the last 15 years, he has conducted integrated studies, project reviews, and resource evaluations for 50+ companies and taught 100+ industry courses and workshops. He has served as a technical editor, distinguished lecturer, distinguished author for SPE, and is a past president of the Energy Minerals Division of AAPG. Creties has 30+ years of experience having previously worked at Tenneco, ARCO, and DeGolyer & MacNaughton. He holds a BSc in Geological Engineering and a MSc in Geology from the South Dakota School of Mines.