

Carbonate Reservoir Characterization “RC”

Course general description:

This course is designed for all G&G staff that has some background on carbonate sedimentology to project it onto reservoir characterization (RC) to upgrade their knowledge as well as sharpen their skills to meet both lab work analysis review in order to run successfully any related exploration and development projects.

The learning material , while running the course, will have direct impact on understanding, creating and Facies interpretation and solving any related “RC” problems Methodology of such course is especially tailored to be a mix of workshop style with live examples and practical group exercises and videos

Audience:

This course is designed for:

Middle experienced geologists/geophysicists and reservoir engineers who are involved in working together in G&G&E teams to develop areas or specific fields

Course objectives:

The course will provide attendees a professional ability to apply what they know and what they will learn during the workshop sessions for future real life application for multiple carbonate “RC” risks, problems and uncertainties

Course duration:

5 days

Course location:

Dubai

Course contents:

Day-1

1. Pretest
2. Introduction to Clastics and non clastics
3. What is reservoir characterization (RC)
4. Carbonate generalities and rock constituents
5. Rock fabric, packing ,etc
6. Carbonate minerals, Diagenesis and Cement

Day-2

1. Carbonate porosity
2. Carbonate classifications
3. Dolomite generation
4. Dolomite Vs Calcite
5. Facies/ dolomitization/ Neomorphism
6. Carbonate Depositional environments

Day-3

1. Aggregated grains and re-sedimentation
2. Morphometry of carbonate grains
3. Coring carbonate, XRD,XRF,CT SCAN,SWC
4. Carbonate factory

5. Carbonate Sedimentary structures and its impact on “RC”
6. Carbonate petrography and projection onto oi & gas industry

Day-4

1. Rocks and core samples Vs Reservoirs Geology
2. Trace fossils and bioturbation
3. “RC” From facies to Microfacies MF and SMFT
4. Fault sealing a bless or a curse
5. Few carbonate trap examples
6. E Log response of carbonate Lithology and “RC”

Day-5

1. Image log and Fracture analysis
2. Facies in-relation to reservoir quality
3. Modeling and “RC” ,who is first and why?
4. “RC” for EOR from outcrop to subsurface
5. importance of integrated “RC”, the Kuwaiti model
6. A well or a project “post Mortem”
7. Posttest

Methodology:

- 50% lectures & concepts
- 10% Videos
- 10% Case studies
- 10% Exercises
- 10% Discussions
- 10% Software (if applicable or examples)

Course code: (TEXP017)