Advanced and Emerging Technologies of Enhanced Oil Recovery (EOR) Processes

23 - 27 Sep 2018, Dubai
WHY CHOOSE THIS TRAINING COURSE?

The increasing demand of oil by the global industry develops very good opportunity for more applications of current and advanced enhanced oil techniques in mature oil fields. This course is designed to provide participants with comprehensive understanding of different design aspects, types, screening criteria, and field application of current, advanced and emerging technologies of Enhanced oil Recovery (EOR) processes.

The goal of this five-day PetroKnowledge training course is to present basics, problems, advanced solutions, field applications of chemical, miscible, and thermal EOR methods, and emerging technologies of different EOR processes with actual field cases. Today, it is better to apply EOR in a secondary mode. Detailed advanced EOR methods of steam assisted gravity drainage (SAGD), Low Salinity (LSW), Vapor Extraction (VAPEX), microbial and enzyme, microwave, electric, and hybrid chemical-thermal-miscible methods will be discussed. All of these techniques suffer from several problems of accurate reservoir characterization, difficult screening actual severe heterogeneous reservoir, pilot design, and field implementations. The course is designed as an interactive learning environment of lecturing, industry videos, and solved field cases.

This training course will feature:

- Rock and fluid properties for better reservoir characterization
- Classify and screen different EOR methods for current producing reservoirs
- Screen actual reservoir(s) to select the best EOR method for your reservoir
- Maximize oil recovery using chemical, miscible, and thermal EOR methods
- Know newly-developed EOR methods of chemical, thermal, miscible, hybrid EOR methods
- Understand Microbial, Low Salinity Water, SAGD, VAPEX, THAI, microwave, electric methods
- Understand different problems and proposed solutions of different EOR processes

WHAT ARE THE GOALS?

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

- Describe different chemical, miscible, and thermal EOR processes
- Maximize oil recovery using Mobility Ratio and Capillary Number
- Apply reservoir characterization and screening actual fields for EOR
- Understand chemical, miscible, thermal, and hybrid EOR techniques
- Understand newly-developed EOR methods and compare with current ones

WHO IS THIS TRAINING COURSE FOR?

This PetroKnowledge training course is suitable to a wide range of professionals but will greatly benefit:

- Petroleum, Production & Reservoir Engineers
- Processing engineers & other discipline engineers
- Engineers who are new to the profession
- Other individuals who need to know about EOR technologies

How will this Training Course be Presented?

This training course will utilize a variety of proven adult learning techniques to ensure maximum understanding, comprehension and retention of the information presented. The course is designed as a blended environment of presentation, class exercises, field application/analysis and several industry videos showing all processes.

www.petroknowledge.com
DAILY AGENDA

Day One: Different EOR Processes and Screening Criteria

- Different enhanced oil recovery (EOR) methods
- Reservoir concepts, rock and fluid properties for EOR
- Screening criteria and mechanisms of different EOR methods
- Maximize oil recovery using Mobility Ratio and Capillary Number
- Limitations, challenges and problems of different EOR methods

Day Two: Reservoir Fluid Properties and Reservoir Characterization

- Reservoir concepts, main rock and fluid properties for EOR
- Advanced reservoir characterization techniques for EOR methods
- Water flooding: design requirement, limitations, and displacement theory
- Polymer flooding: polymer types, properties, and types of degradation
- Polymer flooding: mobility ratio (M), slug design, and field application

Day Three: Current Chemical and Miscible EOR Techniques

- Alkaline/polymer and ASP flooding: process and limitations
- Two actual field results: Daqing (China) and Kentucky (USA)
- Miscible gas EOR: CO2, HC, and Nitrogen injection methods;
- Lab and numerical determination of minimum miscibility pressure
- Carbon dioxide miscible and immiscible flooding processes

Day Four: Current and Advanced Thermal EOR Processes

- Thermal processes; cyclic and continuous steam injection
- Steam-Assisted-Gravity-Drainage (SAGD)
- In-situ combustion methods: forward and backward
- Toe-to-Heel Air Injection (THAI) and CAPRI processes
- Steam-CO2 hybrid EOR technique and field application

Day Five: Other Advanced EOR Processes

- Microbial (MEOR) and Enzymes (EEOR) processes
- Low Salinity Water (LSW) and pulsed water processes
- Seismic, Electric, and Electromagnetic heating EOR methods
- Hybrid EOR applications; CO2-thermal and chemical-thermal methods

Exercises Include:

- Lab and field identifications of different types of reservoir fluids
- Calculation of Capillary Number (Nc) and Mobility Ratio (M)
- Maximization approaches of oil recovery using EOR concepts
- Screening five-actual field cases worldwide
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**COURSE DATES, VENUES AND FEES**

| 23 - 27 Sep 2018 | Dubai | $5,500 |

This fee is inclusive of Documentation, Lunch and Refreshments.

Please use BLOCK CAPITALS to fill in this form. It is important that you read carefully through all information before starting to complete the form.

**REGISTRATION DETAILS**

Family Name: ___________________________________________
First Name (Mr./Ms.): ____________________________________
Position: ________________________________________________
Company: _______________________________________________
Mailing Address: ________________________________________
_________________________________________________________________________________________________________________________________________
Telephone:____________________ Mobile: __________________
Fax: _______________________ Email: ____________________

**AUTHORISATION**

Authorised By: __________________________________________
Position: ________________________________________________
Company: _______________________________________________
Mailing Address: ________________________________________
_________________________________________________________________________________________________________________________________________
Telephone:____________________ Mobile: __________________
Fax: _______________________ Email: ____________________

**BOOKING TERMS & CONDITIONS**

**Booking**
- Bookings for courses can be made via our website (petroknowledge.com) or by contacting our Registration Desk on +971 2 5577389 or at reg@petroknowledge.com
- For on-line bookings, please select the course that you require and click on the “Register Now” button, following the instructions step by step
- Upon receipt of booking in order, enrolment on the respective training course will be confirmed by Registration Team with all necessary documentation

**Invoicing and Payment**
- Our fees include course presentation, relevant materials, physical & digital documentation, lunch and refreshments served during entire training. Accommodation charges are not included in the course fees
- Course fees are payable upon booking unless a valid, authorized Purchase Order is provided and accepted
- Invoices will be sent via email/courier to the ID/name and address provided
- We prefer to have the fees payment in our account before the start of training course. However, if your company has a different payment policy, the same should inform us in advance
- The currency of fees is in US Dollars (USD). Payments can be made in USD or UAE local currency AED (Arab Emirates Dirhams) either by Bank Transfer or by Credit Card. Our Bank Account details will be provided on the Invoice
- Please note that we do accept payment by cash, in USD or AED, only for the last minute bookings

**Cancellation of Courses**
- It may be necessary for PetroKnowledge to amend or cancel any course, course times, instructors, dates or published fees due to unforeseen circumstances and we reserve the right for such changes
- Any amendments will be advised before the course start date and any bookings already paid in full will not be subject to increased fees

**Cancellation by Client**
- Once you have completed your booking, received your confirmation of enrolment and a dated payment Invoice, you are deemed to have a contract with PetroKnowledge. You reserve the right to cancel this contract given the below terms
- All cancellations must be received in writing at reg@petroknowledge.com and info@petroknowledge.com at least 14 days prior to the training
- After the cancellation period has expired, consideration may be given, on a case to case basis, if a registered delegate nominates a substitute on the same course, shifts to next session of the course or moves to a new course
- For a cancellation request made on or before the statutory 14 day cancellation period, a refund may be given or a credit note issued which can be used against future course fees
- A 25% administration fee (of the total course fee at the time of booking) will be charged for any cancellations made outside of the statutory cancellation period

**Attendance Certificate**
- The daily course schedule should be accurately followed to ensure undeterred implementation of our training
- All delegates, who participated in their course throughout, will receive the Certificate of Completion on the last day
- Please report any foreseeable absences to a PetroKnowledge representative or to your sponsors directly
- An absence of three (3) or more sessions of the course will invalidate your eligibility for the Certificate of Completion