

“EOR WORKSHOP”



September 22, 2012; 12:00 pm – 4:00 pm

Cleveland Renaissance Hotel, Cleveland OH

Sponsored by

Petroleum Technology Transfer Council

Hosted by

The Ohio Geological Society & the Eastern Section, AAPG

COURSE DESCRIPTION

Today domestic O&G producers are focusing on oil or liquids-rich production. Drilling for new oil, often in unconventional or tight oil plays, is strong and looks to remain so. For many though, the drilling game does not fit their situation, so their focus is on recovering more oil from existing reservoirs – from improved waterflooding to stimulation/cleanup treatments to “today’s” chemical flooding to CO₂ flooding. Field results prove that independents can successfully apply all of those leading edge technologies.

In the first session three low cost innovative technologies will be presented via recordings. Brad Govreau of Titan Oil Recovery will discuss his work using existing reservoir microbes for enhanced oil recovery. J.T. Portwood of Eclipse Oil Recovery will discuss improved recovery through injection-side conformance. Kishore Mohanty of the University of Texas will describe the latest developments in chemical flooding. Finally, Dwight Rychel of PTTC will describe the technology and activity in the growing area of Low Salinity Waterflooding. James Damico of the Illinois State Geological Survey will present the results of Alkaline Surfactant Polymer (ASP) flood activity in the Rex Energy operated Lawrence field in Lawrence County, Illinois. Alkali Surfactant Polymer flooding is an emerging EOR technology that has been untested in the mature reservoirs in the Illinois Basin but has excellent potential. However, there are several steps needed to be taken to ensure a successful EOR project and one of the important steps is performing a detailed reservoir characterization and determining the heterogeneity of the reservoir. As part of the Rex Energy project, partially supported by a DOE grant, the Illinois State Geological Survey has undertaken an extensive study of the reservoir. The research being conducted on Lawrence Field focuses on the geological characteristics that need to be taken into account while designing EOR chemical floods.

In the second session, Scott Frailey of the Illinois State Geological Survey will present the results of two small-scale CO₂ injection tests in Illinois Basin oil reservoirs. The purpose of these Phase II tests was to gauge the large scale CO₂ storage potential that might be realized from enhanced oil recovery of mature oil fields via miscible and immiscible CO₂ flooding. Bill Harrison will discuss the current activity and CO₂ EOR potential of the Michigan Basin. Most of this activity is focused on the Silurian Niagaran Reef trend. Sixty seven of the 1,000 reef fields have seen some improved recovery activity – waterflood, natural gas reinjection and seven with CO₂. The results of this activity ranged from 1.5% to 47.7% of original oil in place, averaging 16.4%. Steve Bryant will be featured in the last recorded presentation discussing the leading edge research in which the

University of Texas is engaged in the use of nanotechnology to improve the performance of CO2 foams.

Learn what you need to know to make improved oil recovery decisions, mini-case studies, new trends and future directions in the different IOR areas.

TOPICS COVERED

Time	Topic	Speaker/Comment
5 min	Intro/Today's Agenda	Dwight Rychel
45 min	Some "Lower Cost" Incremental Options >> Microbial EOR (Govreau) >> Injection-side conformance (Portwood) >> Today's chemical systems (Mohanty) >> New RPSEA Small Producer Award (KU) (Rychel)	10-min recorded presentations plus Q&A >> Brad Govreau, Titan Oil Recovery >> J.T. Portwood, Eclipse Oil Recovery >> Kishore Mohanty, UT Austin
10 min	Low Sal Waterflooding – A New Option? What The Literature Says.	Dwight Rychel
30 min	ASP Flooding in the Illinois Basin http://ir.rexenergycorp.com/releasedetail.cfm?releaseid=664288	James Damico of Illinois State Geological Survey
15 min	CO2 Flooding – CCUS – In the East & Across the Country	Dwight Rychel
10 min	BREAK	
60 min	ISGS's CO2-Related Work in IL, IN & KY	Scott Fraley of ISGS
30 min	CO2 Flooding/Carbon Capture Potential/Activity in the Michigan Basin	Bill Harrison, Western Michigan University
20 min	Directions of CO2 Flooding Research	>> Nanotechnology and CO2 foams, recorded presentation (Steve Bryant, UT Austin) >> Rychel (general comments re DOE/RPSEA R&D)
10 min	Wrapup/feedback	Dwight Rychel

REGISTRATION

The workshop is part of the technical program for the Eastern Section AAPG meeting. To register, go to: <http://www.esaapg2012.org/presentations/short-courses>