

Interdisciplinary CCUS Workshop, Sept. 23-24th 2019

at University of Houston

Workshop provided by:

Petroleum Research School of Norway (NFiP), NorTex Petroleum Cluster and University of Houston

Venue:

Accommodations: Hilton Hotel, University of Houston, 4800 Calhoun Rd, Houston, TX, USA,

Lectures: Student Center South on UH Campus.

Link to UH campus map: <https://www.uh.edu/maps/index.php>

Time:

Monday Sept. 23rd - Tuesday Sept. 24th, 2019.

Detailed Program: (green text: confirmed presentation)

Day 1: Topics and Challenges for Day 1 of the Workshop:

- CO₂ EOR as CCUS in Conventional Reservoirs
- CO₂ EOR as CCUS in Unconventional Reservoirs

Day 1: Monday Sept. 23rd

08:30 Registration and Coffee

09:00 *Opening Address*

Arne Graue, Prof. of Physics, Univ. of Bergen, Norway;

Chair of the Boards: Petroleum Research School of Norway and NorTex Petroleum Cluster

Ramanan Krishnamoorti, VP Energy, U. of Houston

09:20 *Global Assessment of CCUS in Conventional and Unconventional Energy Production*

Jostein Dahl Karlsen, Global Manager, International Energy Agency Gas & Oil Technology Network Initiative Collaborative Program (IEA/GOT CP)

09:40 *CCUS in the US – Historical Perspectives and Future Opportunities*

Charles D. McConnell, Director, Carbon Management Center, University of Houston and former Ass. Sec. for Fossil Energy U.S. Department of Energy



NorTex Petroleum Cluster

NFiP
PETROLEUM RESEARCH SCHOOL OF
NORWAY

Nasjonale forskerskole i petroleumsfag
Petroleum Research School of Norway



Schlumberger



- 10:00 *Reflections on IPCC Perspectives*
Klaus Lackner, Arizona State University
- 10:20 *Industry Opportunities within CCUS*
NN, Low Carbon Venture, Occidental Corporation
- 10:40 *CO₂ Utilization*
Dag Nummedal, Former Director, Colorado Energy Research Institute (retired), Affiliate, Dept. Petr. Eng., Colorado School of Mines
- 11:00 Coffee Break
- 11:20 *CCUS Recruitment to Service Industry*
Marina Bulova, Director, University Collaborations, Schlumberger

Topic 1: CO₂ EOR as CCUS in Conventional Reservoirs

- 11:40 *Regulatory Challenges in CCUS*
Mike Moore, East-West Strategic Advisors
- 12:00 *Economics, Policy and Public Perception*
Christine Ehlig-Economides, Dept. of Petroleum Engineering, U. of Houston

Topic 2: CO₂ EOR as CCUS in Unconventional Reservoirs

- 12:20 *Opportunities for CO₂ EOR in Unconventional Reservoirs*
Konstantinos Kostarelos, Petroleum Engineering, Subsurface Research Center, U. of Houston
- 12:40 *CO₂ as a Commodity for Methane Production from Hydrate Reservoirs – CCUS Enabler for Efficient, Cost Saving and More Sustainable Oil & Gas Production*
Arne Graue, Dept. of Physics and Technology, University of Bergen
- 13:00 – 14:00 Lunch
- 14:00 – 16:30 Interdisciplinary student group work
- 16:30 – 18:00 Group presentations
- 19:00 Reception Dinner at Hilton Hotel, University of Houston.

Day 2: Tuesday Sept. 24th

- CO₂ EOR as CCUS: From Onshore to Offshore Reservoirs
- CO₂ EOR as CCUS: How to Obtain Social License to Operate

08:30 Registration and Coffee

Topic 3: CO₂ EOR as CCUS: From Onshore to Offshore Reservoirs

- 09:00 *Challenges in Onshore CO₂ EOR – Experiences of Great Value When Going Offshore*
Steve Melzer, Melzer Consulting
- 09:20 *CSLF Perspectives for CO₂ EOR as CCUS Offshore*
Arne Graue, Dept. of Physics and Technology, University of Bergen

- 09:40 *Status for Offshore CO₂ EOR in the Lule Field in Brazil*
NN, Petrobras
- 10:00 *Opportunities for Offshore International Whole Value Chain CCUS*
Arne Graue, Dept. of Physics and Technology, University of Bergen

Topic 4: CO₂ EOR as CCUS: How to obtain Social License to Operate

- 10:20 *Public Perception and Social License to Operate*
Jostein Dahl Karlsen, International Energy Agency Gas & Oil Technology Network Initiative (IEA/GOT)
- 10:40 *Public Policy on Fossil Fuels*
NN, UH
- 11:00 Coffee Break
- 11:20 *Legal Constrains in Fossil Fuel Energy Production*
NN, UH
- 11:40 *Verifying Increased Carbon Sequestration in Ongoing CO₂ Foam EOR Field Pilot in Texas*
Zachary Alcorn, Univ. of Bergen
- 12:00 – 13:00 Lunch
- 13:00 – 16:30 Interdisciplinary student group work
- 16:30 – 18:00 Group presentations
- 18:00 End of Workshop
- 18:15 Bus transport to Hilton Hotel Medical Plaza