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FIRST EAGE/AAPG/SEG CARBON CAPTURE UTILISATION AND STORAGE WORKSHOP (CCUS)

UNLOCKING THE POTENTIAL OF CARBON STORAGE:
STRATEGIES FOR A SUSTAINABLE FUTURE

21-23 OCTOBER 2025 | AL KHOBAR | SAUDI ARABIA

PROGRAMME

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TECHNICAL COMMITTEE

Mario H Valderrama (Co-Chair)	Aramco
Alejandro Rodriguez (Co-Chair)	ADNOC
Raymond Jellema	ADNOC
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Ahmed Alghamdi	Aramco
Nicolas Foote	Badley Ashton
Carlos Granado	Computer Modelling Group Limited
Ali Alfaraj	DGS
Jonathan Pye	DNV
Syrie Crouch	Independent Consultant
Mohammad Haidar	KOC
Naif AlQahtani	NCVC
Alberto Ortiz	Net Zero Carbon Solutions
Ahmed Sabry	SLB
Wael Abdallah	SLB
Oskar Vidal Royo	Terractiva
Kim Senger	The University Centre in Svalbard
Laurent Fontanelli	UniLaSalle
Liao Kunpeng	Viridien

WORKSHOP OVERVIEW

CCS/CCUS technologies have emerged as critical solutions for mitigating greenhouse gas emissions, particularly in the rapidly industrializing and urbanizing Middle East region. Both the subsurface technical knowledge and related data sets of the petroleum industry are major inputs required for the world to successfully move towards a carbon-neutral and sustainable energy future. The Middle East with its exceptional petroleum systems and wealth of subsurface knowledge is a prime candidate to lead the CCS efforts worldwide.

The goals of the workshop are to promote knowledge sharing on the latest capture, transport and storage advances from renowned experts and industry professionals, focus on subsurface workflows for CCS evaluation through technical presentations, accelerate further consideration of the application of mainstream CCS technologies in the Middle East region, and exchange ideas and issues around CCS technology. The workshop will also shed light on CCUS-focused climate action strategies along with CCUS economic and business models with a view on Carbon market opportunities, to exchange valuable and actionable insights, the First EAGE/ AAPG/ SEG Carbon Capture Utilisation and Storage Workshop (CCUS) will bring together the expertise from subsurface specialists including geologists, geophysicists, geochemists, well design and operations, reservoir engineers, project managers, and petrophysicists, as well as research and academia.



WORKSHOP TOPICS

1. CCS/CCUS in the Context of the Middle East

- The role of the Middle East in global CCS initiatives
- Leveraging petroleum industry expertise for CCS development
- The Middle East's geological suitability for CO₂ storage
- Challenges and opportunities for CCS in rapidly urbanizing regions
- International Standards in the Middle East context: ISO and others

2. Subsurface Workflows for CCS Evaluation Reservoir and overburden characterization for CO₂ storage

- The role of core in characterizing a CCS storage complex
- Changes in Rock Properties Due to CO₂ Injection
- Specific data collection for CCS project: shallow logs, water elemental analysis...
- Modeling and simulation of CO₂ injection and storage: from wellhead
- Lessons from EOR (Enhanced Oil Recovery) for CCS
- Role of seismic imaging in evaluating CCS reservoirs
- Dynamic Reservoir Behavior and Long-Term Storage Feasibility
- Geochemistry & Geomechanics workflows
- Interaction between reservoirs and seals

3. Machine Learning/AI for Subsurface / Production for CCS

- Automated baseline data utilization for natural events discrimination
- MMV data feed to digital twin for Automated/assisted Asset Performance and optimization
- MMV data feed for Automated/assisted carbon credits and LCA certification

4. Deployment of CCS Technologies in the Middle East

- Current CCS projects and pilot studies in the region
- Regulatory frameworks and policies for CCS deployment
- Role of national oil companies (NOCs) in advancing CCS
- Public-private partnerships for CCS projects
- Lessons from global CCS projects?



EAGE COURSE

Effective CO₂ subsurface storage and utilisation by understanding coupled thermo-hydro-chemical-mechanical processes

Instructed by Eric Mackay (Heriot-Watt University)

About the instructor



Eric Mackay holds the Energi Simulation Chair in CCUS and Reactive Flow Simulation in the Institute of GeoEnergy Engineering at Heriot-Watt University, where he has worked since 1990. His research interests include the study of fluid flow in porous media, such as the flow of oil, gas and water in subsurface geological formations. He has over 100 publications related primarily to maintaining oil production when faced with mineral scale deposition, but since 2005 he has also worked on Carbon Capture and Storage. He is involved in projects identifying methods for calculating secure CO₂ storage potential in saline formations and depleted hydrocarbon reservoirs.

SHORT COURSE OVERVIEW

The course discusses the various objectives of subsurface injection of CO₂ in hydrocarbon bearing formations, in aquifers, and in combined systems, and how the effectiveness of delivering on these objectives may be assessed. Specifically, the following topics will be covered: CO₂ displacement in a porous medium, assessment of pressure management and saturation profiling, the impact of prioritizing hydrocarbon recovery or carbon sequestration, and the trade-offs and potential synergies between the two. Evaluating the risks for CO₂ storage is a key aspect in determining the technical viability of such projects. This course will explain coupled phenomena in terms of i) impacts on hydrocarbon displacement, ii) reservoir conformance and iii) storage integrity by discussing the principles of coupled processes affected mainly by changes in pressure, temperature and geochemistry in subsurface formations. These changes will affect flow and transport as well as geochemical integrity and impact the long-term predictability of hydrocarbon recovery and CO₂ conformance and containment. Through this course you will learn how coupled processes are implemented in real-world CO₂ storage projects to assess related risks. You will gain an understanding of the coupled processes in CO₂ storage reservoirs to make your own assessment of short to long-term risks for reservoir performance prediction and CO₂ containment, and you will obtain an introduction into the fundamental coupled processes expected to occur in the subsurface.

5. Plume migration and Leakage Monitoring for CSS

- Baseline recording: biosphere, atmosphere, hydrosphere, passive seismic and ground elevation – technology selection and strategies
- EM, Seismic, Spot seismic and other imaging techniques
- Monitoring and verification techniques for secure storage
- Detecting CCS induced micro-seismicity
- Full chain Risk Register as input to MMV program

6. Multidisciplinary Collaboration in CCS Projects

- Cross-industry knowledge sharing for successful CCS deployment
- Bridging the gap between academia, research, and industry in CCS: pilots and experimental data
- Contributions of geologists, geophysicists, geochemists, well geomechanics, and petrophysicists, and Well & reservoir engineers in CCS

7. Challenges and Solutions in CCS Deployment

- Addressing technical, financial, and operational challenges
- CO₂ product specifications: full chain integrity vs capture cost
- Compositional assurance and metering
- Subsurface implications of the impurity of the CO₂ stream
- Building infrastructure to support large-scale CCS operations

8. Future Directions for CCS in the Middle East

- CO₂ import: shipping
- Geological Challenges in Multi-Zone Storage Systems
- Emerging trends and research in CCS technologies
- Scaling up CCS to meet global climate goals
- Opportunities for innovation and investment in CCS
- Risks of evolving regulations to CCS projects
- Economics and financing of CCS projects
- Long term liabilities sharing mitigation

WORKSHOP COURSE

Navigating the Complexities of Project Delivery in CCUS Projects

Instructed by Dr. Hooman Haghighi & Suhail Diaz Valderrama (Wood)

About the instructors



Dr Hooman Haghighi is a prominent industry leader in engineering and decarbonisation solutions, highly experienced in providing consultancy services across the energy and materials markets to major industrial partners around the globe. Based in the UK, Hooman is the first or co-author of over 40 refereed

journals, publications, and industry guidelines, primarily concerning hydrogen, carbon capture, and storage (CCS) – two of the world's fastest-growing energy transition solutions. With a Ph.D. in petroleum engineering, his career is marked by involvement in energy, energy transition and decarbonisation projects worldwide, serving as the Technical Authority for Carbon Capture and Storage (CCS), Hydrogen, and Flow Assurance. Additionally, as the "UK Expert" at the British Standard Institution (BSI), he is involved in the development of European and British Standards for CCS. Hooman is now responsible for the definition and application of solutions in the decarbonisation and energy transition space, identifying opportunities for clients in the race to achieve net zero.



Suhail is an energy professional with 25 years of extensive experience in oil & gas, strategy, decarbonization, sustainability, and new energies. Suhail has gained rich international and multicultural experience serving in Latin America, the North Sea, and Middle East markets with proven

experience as a business consultant, and successful track record of identifying and executing innovative solutions that encompass the entire energy value chain. She holds an MBA, MSc in Petroleum Production Engineering, Specialization in Reservoir Engineering and a BSc in Chemical Engineering in addition to numerous licenses and certifications relating to her passion in the energy transition domain (EMP, LCA, H2, GRI, etc). Suhail is credited with many publications as part of SPE Board Committees in the UAE, acting as Chair of Gaia and Sustainability communities, leading a MENA Hydrogen Working Group, and actively participating in global and regional events as a paper author, technical committee member, speaker, moderator, and mentor. Suhail has different roles in important companies in the region and recently joined Wood as the Director – Future Energy – Middle East in the Abu Dhabi office, with the role to drive and direct a world class team to help customers deliver their decarbonisation aspirations and goals here in the region.



SHORT COURSE OVERVIEW

TBC

Keynote Speakers



Hanan Balalaa

Senior Vice President, New Energies & CCUS
ADNOC



Almohannad Alghamdi

EXPEC CO2 Champion
Aramco

Keynote Title: Carbon Capture, Utilization & Sequestration (CCUS): From R&D to field deployment



Dr. Mohammad Abu Zahra

Head of MENA Region
Global CCS Institute

Keynote Title: MEA Region CCUS Status, Potential and Opportunities



Chiara Cavalleri

Reservoir Performance Petrophysics Domain
Champion
SLB

Keynote Title: The Critical Role of Subsurface Formation Evaluation in CCUS: Technology Application and Case Studies



PANEL DISCUSSIONS

Panel 1: Advances and Challenges in Carbon Storage Exploration

Tuesday, 21 October 2025 | 11:00AM - 12:00PM (UTC+3)

Moderator



Suhail Diaz Valderrama

Director Future Energies Middle East-Eastern Hemisphere
Wood

Panelists



Nabil Al-Bulushi

Technology & Innovation Manager
PDO



Mostafa Ahmed

Manager, Carbon Storage Exploration Division
Aramco



Marylena Garcia

Managing Senior Vice President- Head of Sustainable Energy Division
Ryder Scott



Amir Hermes

New Energy Business Development Manager
SLB

Panel 2: Challenges and Solutions in CCS Deployment

Wednesday, 22 October 2025 | 13:20PM - 14:20PM (UTC+3)

Moderator



Georges Badawi

Senior Director - Energy Transition
S&P Global

Panelists



Steve Hollingworth

Carbon Storage Integration Manager
Viridien



Mohammed H Shawaf

Supervisor Carbon Capture & Sequestration (CCS)
Aramco



Joel Flitton

Head of Commercial MENA/APAC/SAM
Director Carbon Removals
Capturi



TECHNICAL PROGRAMME

Oral Presentations | Monday, 20 October

AL JUBAIL MEETING ROOM		RAS TANURA MEETING ROOM	
Effective CO₂ Subsurface Storage and Utilization by Understanding Coupled Thermo-Hydro-Chemical-Mechanical Processes Eric Mackay (Heriot-Watt University)		Navigating the Complexities of Project Delivery in CCUS Projects Suhail Diaz Valderrama & Dr. Hooman Haghighi (Wood)	
08:00	Registration & Welcome Coffee		
08:55	HSSE From Hotel		
09:00	Session 1: Introduction to CCUS and Understanding the Fluids	09:00	Safety Track Record of CCS Projects
		09:20	Global & Regional CCS Perspective
		09:40	Industrial Cluster Definition & KSA Locations
		10:00	Complexities in Managing CCUS Projects
10:30	Morning Coffee Break		
11:00	Session 2: Plume Management	11:00	Case Study: Typical Industrial Cluster Schematics / Gas Phase Gathering Pipeline
		11:40	Challenges- CCS Projects & Examples
		12:00	Q&A/ Discussion
12:20	Lunch Break - Horizon Restaurant		
13:20	Session 3: CO ₂ EOR and Pressure Management	13:20	CCS Hub Projects – The Role of CO ₂ Specifications for Success Full Project Delivery
14:50	Afternoon Coffee Break	14:50	Afternoon Coffee Break
15:20	Session 4: Introductory Geochemistry and Halite Management	15:20	The Role of Digital Solutions to Accelerate and Enabling CCS Projects
		16:00	Lessons Learned
		16:20	Q&A/ Discussion
		16:35	End of Short Course
16:50	End of Short Course		

Oral Presentations | Tuesday, 21 October

SULTANA BALLROOM (PART 3&4)	
07:30	Registration & Welcome Coffee
08:15	HSSE From Hotel
08:20	Opening Remarks by Co-Chairs Alejandro Rodriguez (ADNOC) & Mario H Valderrama (Aramco)
08:30	Opening Address by Dr. Aiman Bakhorji (Aramco)
08:45	Management Overview - Hanan Balalaa (ADNOC)
Session 1 - CCS/CCUS in the Context of the Middle East Session Chairs: Jonathan Pye (DNV) & Wael Abdallah (SLB)	
09:15	Keynote 1 - MEA Region CCUS Status, Potential and Opportunities - Dr. Mohammad Abu Zahra (Global CCS Institute)
09:45	Interactions of Iron and Associated Minerals with CO2 in Paleozoic Sandstones of Saudi Arabia - C. Munoz Martinez ^{1*} , A. Al-Yaseri ¹ , H. Al-Mukainah ² , K. Al-Ramadan ¹ ¹ Geosciences Department, College of Petroleum Engineering and Geosciences, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia; ² Center for Integrative Petroleum Research (CIPR), College of Petroleum Engineering and Geosciences, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.
10:05	Achieving Net Zero Carbon Emissions through CCUS in West Kuwait Fields - M. Alzamanan ^{1,2*} ¹ Kuwait Oil Company; ² D&M
10:25	Morning Coffee Break
Panel Session 1 - Advances and Challenges in Carbon Storage Exploration Moderator: Suhail Diaz Valderrama, Wood	
11:00	Panelists: • Marylena Garcia, Ryder Scott • Nabil Al-Bulushi, PDO • Mostafa Ahmed, Aramco • Amir Hermes, SLB
11:50	Audience Q&A
12:00	Lunch Break - Horizon Restaurant
Session 2 - Subsurface Workflows for CCS Evaluation Reservoir and Overburden Characterization for CO2 Storage Part 1 Session Chairs: Carlos Granado (CMG) & Raymond Jellema (ADNOC)	
13:00	Keynote 2 - Carbon Capture, Utilization & Sequestration (CCUS): From R&D to Field Deployment - Almohannad Alghamdi (Aramco)
13:30	Digital Integration in CCS: A Game-Changing Pilot in the Middle East Region - S. Diaz ¹ , J. Henriksson ¹ , A. Rodriguez ² , H. Haghighi ^{1*} , R. Jellema ² , M. Aneke ¹ , L. Calderon ² ¹ Wood; ² ADNOC
13:50	Lessons Learned from Brazilian Technical Evolution: CO2 WAG EOR that has Delivered 50Mt of CO2 Storage - P. Gusmão ^{1*} , E. Mackay ² ¹ Petrobras; ² Heriot-Watt University
14:10	CCS Challenges in Heterogeneous Carbonates: Identification and Characterization of Microporosity Facies as Barriers for CO2 Injectivity - R. Jordan Leite ^{1*} , Y.E. Jing ¹ , H.M. Jubran ¹ , P.T. Madeira Pinto ¹ ¹ Saudi Aramco
14:30	De-risking Geochemical/Mechanical Impacts of the Injection and Storage of Impure CO2 in a Carbonate Reservoir - R. Van Noort ^{1*} , A. Rodriguez-Martinez ² ¹ IFE Institute for Energy Technology; ² ADNOC

Poster Session 1	
14:50	Lightning Session - Presenters introducing their posters Digitalizing MMV Operation: An Integrated Approach from Measurement to Action - M.Z. Bin Zaini ^{1*} ¹ SLB Reactive Transport Simulation of CO2 Injection Effects on the Hith Caprock Integrity - A Preliminary Analysis. - M. Maigana ^{1*} , A. Alshuhail ¹ ¹ King Fahd University of Petroleum and Minerals Geomechanical Characterization of Montney Turbidites for Secondary Carbon Storage in the Western Canada Sedimentary Basin - A. Mascarenhas ¹ , E. Muniz ^{2*} ¹ University Of Toronto; ² SLB Advanced 4D Seismic Quantification of a Saline Aquifer Carbon Storage: Insights from Sleipner, Norway. - E. Omonigho ^{1*} ¹ ADNOC HQ, Upstream Directorate
15:00	Poster Presentations at the Coffee Break Area
Session 3 - Deployment of CCS Technologies in the Middle East Session Chairs: Wael Abdallah (SLB) & Kunpeng Liao (Viridien)	
15:30	Acoustic Velocity Characterization for CO2 Storage in Saline Aquifer Carbonates: An Experimental Study - M. Janssen ¹ , O. Kirstetter ^{1*} , S. Nizamuddin ¹ , I. Mohammed Ismail ¹ , R. Farmer ¹ , S. Shah ¹ , A. Rodriguez Martinez ¹ ¹ Abu Dhabi National Oil Company
15:50	Automated CO2 Detection by Focused Seismic Monitoring using Optical Fiber DAS-VSP Data - J. Mari ¹ , H. Al Khatib ¹ , J.A. Cowell ² , G. Cambois ² , O.H. Kirstetter ² , J. Mason ² , C. Cosson ^{1*} ¹ SpotLight; ² ADNOC
16:10	DAS-VSP Application to Monitor CO2 Injection Within a Carbonate Saline Aquifer Onshore UAE: a Quantitative Approach - O.H. Kirstetter ^{1*} , G. Cambois ¹ , J. Mason ¹ , J. Cowell ¹ , M. Waqas ¹ , M. Mahgoub ¹ ¹ ADNOC
16:30	Closing Remarks by Chairs
16:40	End of Day 1



Oral Presentations | Wednesday, 22 October

SULTANA BALLROOM (PART 3&4)	
07:30	Registration & Welcome Coffee
08:00	Welcome by Co-Chairs Alejandro Rodriguez (ADNOC) & Mario H Valderrama (Aramco)
Session 4 - Subsurface Workflows for CCS Evaluation Reservoir and Overburden Characterization for CO2 Storage Part 2 Session Chairs: Laurent Fontanelli (UniLaSalle) & Ahmed Sabry (SLB)	
08:10	Keynote 3 - The Critical Role of Subsurface Formation Evaluation in CCUS: Technology Application and Case Studies - Chiara Cavalleri (SLB)
08:40	Utilization of Downhole Fiber Optics to Monitor Injection Within a Carbonate Saline Aquifer Onshore Abu Dhabi - J. Mason ^{1*} , G. Cambois ¹ , J. Cowell ¹ , O. Kirstetter ¹ , A. Martinez ¹ ADNOC
09:00	Aquifer Size, Seal Strength Effects on CO2 Storage Capacity, a Case Study in the Middle East - M. Valderrama ^{1*} , A. Ghamdi ¹ Aramco
09:20	Integrated Simulation of Multiphase CO2 Flow in CCS: A Field-Validated Approach - R. Malakooti ² , J. Villar ^{1*} , K. Morgensen ³ , A. Rodriguez ³ , M. Aikman ³ ¹ CMG Middle East; ² Computer Modelling Group; ³ ADNOC
09:40	Thermo-Mechanical Coupled Modeling to Assess CO2 Storage Integrity in a Depleted Gas Reservoir - J. Guerra ^{1*} SLB
Poster Session 2	
10:00	Lightning Session - Presenters introducing their posters Advanced Mineralization of CO2 in Basaltic formations: Implication for CO2 storage - J. Mouallem ^{1*} , M. Arif ¹ , M. Mahmoud ² , A. Raza ² ¹ Khalifa University; ² King Fahd University of Petroleum and Minerals The importance of water characterization for CCUS - M. Charupa ^{1*} , A. Ali ¹ SLB Conceptual Plan to Remediate and Abandon Legacy Wells within a CCS Storage Complex - H. Graterol Donaire ^{1*} , T. Magalhaes ¹ SLB
10:10	Poster Presentations at the Coffee Break Area
Session 5 - Challenges and Solutions in CCS Deployment Session Chairs: Syrie Crouch (Independent) & Mohammad Haider (KOC)	
10:40	Subsurface Constraints for CO2 Specifications in Geological CCS: A Focus on the Middle East - V. Yarushina ^{1*} , Y. Podladchikov ² , L. Khakimova ² , I.M. Ismail ³ , T. Koksalan ³ ¹ Institute for Energy Technology; ² University of Lausanne; ³ ADNOC
11:00	An Efficient CCS Development Strategy that Optimizes Costs whilst Decreasing Subsurface Uncertainty - P. Zapico ^{1*} , A. Clark ¹ , R. Jordan Leite ¹ , D. Shaukry ¹ Saudi Aramco

11:20	Pertamina's CCS Hub Development in Indonesia: Driving Net Zero and Regional Carbon Storage Leadership - D. Ardiyanta ^{1*} , D. Mersitarini ¹ , A. Widowati ¹ , I. Mahendra ¹ , A.F. Farabi ¹ , M.A. Fauzi ¹ ¹ PT. Pertamina (Persero)
11:40	Assessment of CO2 Specifications - When are they Safe? - A. Dugstad ^{1*} , B. Morland ¹ , G. Svenningsen ¹ , A. Raju ² , W. Al Shouly ² , I. Ismail ² , A. Rodriguez Martinez ² ¹ Institute For Energy Technology; ² ADNOC
12:00	Challenges of Mid-Stream Operators in CCUS Value Chain - R. Gopinath ^{1*} , V.M. Kapuria ¹ ADNOC
12:20	Lunch Break - Horizon Restaurant
Panel Session 2 - Challenges and Solutions in CCS Deployment Moderator: Georges Badawi (S&P Global)	
13:20	Panelists: • Abdulaziz Al Tubayye, Aramco • Steve Hollingworth, Viridien • Joel Flitton, Capturi
14:10	Audience Q&A
Session 6 - Plume Migration and Leakage Monitoring for CSS Session Chairs: Kunpeng Liao (Viridien) & Ahmed S. Ghamdi (Aramco)	
14:20	The Impact of Depositional Environment on the Fate of CO2 Plume: Case Study from Saudi Arabia - J. Zhou ^{1*} , S. Egbeni, A. Ghamdi, H. Daif Saudi Aramco
14:40	CCS Monitoring Using Time-Lapse Walkaway VSP in the West of China - G. Yu ^{1*} , J. Huang ¹ , Y. Wang ¹ , Y. Chen ¹ BGP Inc. CNPC
15:00	A Real-time, Cost-effect and Integrated MMV Solution for Real-time and Continuous Carbon Storage Monitoring - M. Hedefa [*] , T. Chen Arabian Geophysical and Surveying Co. (ARGAS); ² SensorEra Inc
15:20	Afternoon Coffee Break
15:50	Tracer-based MMV Technology – Qualification and Results from One Year of Monitoring of Middle-East Storage Project - S.K. Hartvig ^{1*} , T.I. Aarhus ¹ , Ø. Dugstad ¹ , J.A. Cowell ² , J. Mason ² ¹ RESMAN Energy technology; ² ADNOC Upstream
16:10	Cross-well Imaging for Monitoring CO2 Plumes at Svelvik CO2 Field Lab - Y. Yang ^{1*} , D. Urozayev ² , N. Barbosa ² , A. Ghaderi ² , O.M. Saad ¹ , T. Alkhalifah ¹ ¹ King Abdullah University of Science and Technology; ² SINTEF Industry
16:30	Closing Remarks by Chairs
16:40	End of Day 2



Oral Presentations | Thursday, 23 October

BALLROOM (PART 3&4)	
07:30	Registration & Welcome Coffee
08:00	Welcome by Co-Chairs Alejandro Rodriguez (ADNOC) & Mario H Valderrama (Aramco)
Session 7 - Subsurface Workflows for CCS Evaluation Reservoir and Overburden Characterization for CO₂ Storage Part 3 Session Chairs: Ahmed Sabry (SLB) & Syrie Crouch (Independent Consultant)	
08:10	MATLAB Carbon Sequestration Model: Simulating Vertical Equilibrium for CO₂ Storage in Geological Formations - A. Yaseri ^{1*} , F. Pol ¹ , C. Wells ² , K. Andreas ³ ¹ CES - MATLAB in the Middle East; ² MathWorks; ³ SINTEF
08:30	Chalk as a Strategic CO₂ Storage Medium: Experimental Insights into Reactivity and Flow Dynamics - W. Al-Masri ^{1*} , B. Rostami ¹ , K. Blinkenberg ¹ , S. Johansson ² , U. Kakemem ² , S. Mohammadkhani ¹ , P. Frykman ¹ , K. Anderskov ² , H. Petersen ¹ ¹ Geological Survey of Denmark and Greenland; ² University of Copenhagen
08:50	Enhancing Data Acquisition to Improve Static Modeling of Carbon Sinks - Z. Alabdulmohsen ^{1*} , E. Elsherif ¹ Saudi Aramco
09:10	Thermal Dynamic Simulation for modelling Carbon Dioxide Storage in Depleted Gas Reservoirs - Workflow and Advantages - A.R. Shah ¹ , C. Golaco ² , V. Stashevsky ^{1*} , C. Rat ¹ , H. Hasan ¹ , M. Povstyanova ¹ , M. Shaykhattarov ¹ , M. Robert ² , J. Guerra ¹ , M. Shady ¹ , A. Bentaher ² ¹ SLB; ² SNOC
Poster Session 3	
09:30	Lightning Session - Presenters introducing their posters An Integrated Deep Learning Framework for Predictive CO₂ Storage Modelling - J. Ali ^{1*} , W.K. Mohanty ¹ , S. Sarkar ¹ ¹ Indian Institute of Technology Kharagpur Physicochemical interactions between Carbonates/Brine/CO₂ and their impact on Residual Trapping: Application for CO₂ geo-storage - J. Mouallem ^{1*} , M. Arif ¹ , M. Mahmoud ² , A. Raza ² ¹ Khalifa University; ² King Fahd University of Petroleum and Minerals Managing Multi-Disciplinary Risks Across the CCS Value Chain: Integrating Surface and Subsurface Assurance - M. Garcia ^{1*} , R. Jellema ² ¹ Ryder Scott; ² ADNOC
09:40	Poster Presentations at the Coffee Break Area

Session 7 Con't - Subsurface Workflows for CCS Evaluation Reservoir and Overburden Characterization for CO ₂ Storage Part 4	
Session Chairs: Nicolas Foote (Badley Ashton) & Wael Abdallah (SLB)	
10:20	CCS Plume Dynamics History Matching and Uncertainty Assessment through Integrated Numerical Simulation and 4D Seismic Interpretation - R. Solatpour ^{1*} , G. Oliveria ¹ , F. Yatte ¹ , A. Alvarez ¹ , S. Fernandes ² ¹ CMG; ² Bluware
10:40	Rock Permeability Effect on Residual CO₂ Trapping Efficiency in Carbonate Formations - J. Mouallem ^{1*} , M. Arif ¹ , M. Mahmoud ² , A. Raza ² ¹ Khalifa University; ² King Fahd University of Petroleum and Minerals
11:00	Assessing the Potential of Open Saline Aquifer for Carbon Storage in Kuwait - M. Al-Awadhi ^{1*} , M. Huuse ² , C. Hollis ² ¹ Kuwait Oil Company / University of Manchester; ² University of Manchester
11:20	Subsurface Characterization of Sandy Reservoirs for CO₂ Sequestration - F.O. Escosa ¹ , O. Vidal ^{1*} , A. Amilibia ¹ ¹ Terractiva Consulting
11:40	Using Play-based Exploration to High Grade Areas for CO₂ Storage - R. Siddiqui ^{1*} , J. Ismail ¹ ¹ Saudi Aramco
12:00	Lunch Break - Horizon Restaurant
Session 7 Con't - Subsurface Workflows for CCS Evaluation Reservoir and Overburden Characterization for CO ₂ Storage Part 5	
Session Chair: Jonathan Pye (DNV) & Raymond Jellema (ADNOC)	
13:00	Independent Third Party Integrated Multi-disciplinary CCUS Characterization and Evaluations - R. Decesari ^{1*} , M. Garcia ¹ ¹ Ryder Scott Company
13:20	A Multidisciplinary Subsurface Evaluation of the CO₂ Sequestration Potential and Risks Associated with Rift Basin Settings - A. Clark ^{1*} , P. Zapico Palmero ¹ , J. Cherdasa ¹ , J. Fedorik ¹ ¹ Saudi Aramco
13:40	Afternoon Coffee Break
14:10	Dissolved CO₂ Storage: A Novel Solution for CCS in the Red Sea Rift Basins - J. Ye ^{1*} , P. Lu ¹ , J. Almeida De Carvalho ¹ , W. Wei ² ¹ Saudi Aramco; ² Aramco Asia
14:30	A Subsurface Scenario Modelling Approach for Evaluating CO₂ Storage Potential in Saline Aquifers. - N. Din ^{1*} , H. Daif ¹ , M. Valderrama ¹ , M. Bakri ¹ ¹ Aramco
14:50	Discussion Session
15:20	Closing Remarks by Co-Chairs
15:35	End of Workshop

REGISTRATION



Registration Fees: Workshop Only

Regular Delegate	Rate (USD)
Member	1650
Non-Member	1850
Committee Member/ Presenter	1450
Academia	900
Student Delegate	Rate (USD)
Student Member	550
Student Non-Member	650

Registration Fees: Workshop & One Short Course (All Access)

Regular Delegate	Rate (USD)
Member	2200
Non-Member	2550

VENUE

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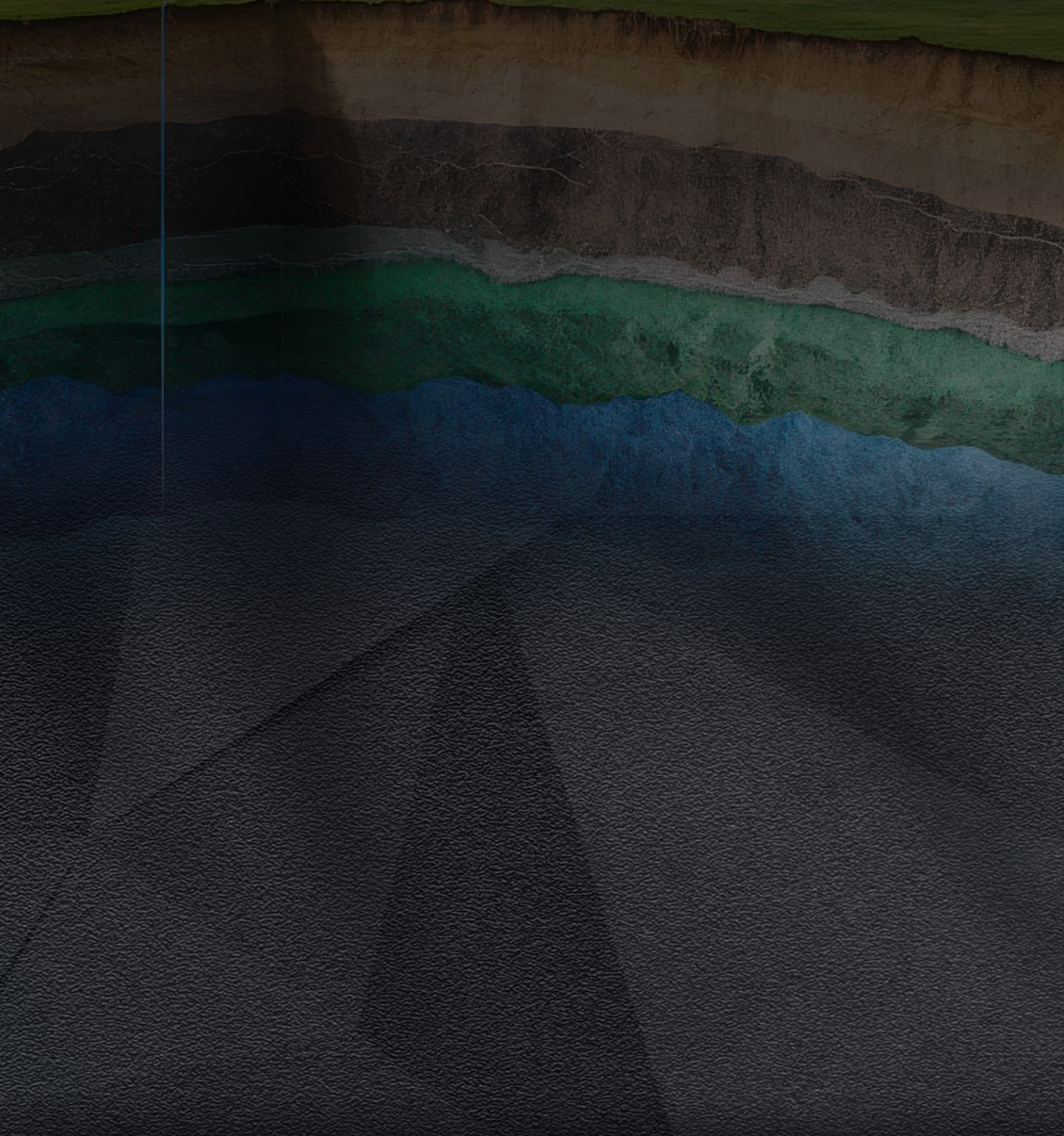


CONTACT

For more information on the workshop, please get in touch with the EAGE MEA team via middle_east@eage.org or +971 4 369 3897.

NOTES

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