

Under the patronage of HH Shaikh Khalifa bin Salman Al Khalifa
Prime Minister of the Kingdom of Bahrain

GEO 2006 *Final Announcement*



7th Middle East Geosciences Conference and Exhibition
Bahrain International Exhibition Centre 27 – 29 March 2006

The Middle East's Exploration Event





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Chairman's Message

Saudi Aramco is proud to chair the GEO conference committee once again.

We look forward to working with national and international oil companies, professional societies, universities and other institutions to make GEO 2006 a memorable event.

The GEO conference and exhibition promotes valuable exchange of ideas. It enables the review of important trends in the oil and gas sector and it is a leading draw for regional and international professionals in the field.

I am confident that your participation at GEO 2006, as an exhibitor, delegate or speaker will prove to be a worthwhile and rewarding experience.

Abdulla Al Naim

GEO 2006 Conference Chairman

Executive Director, Exploration, Saudi Aramco



Introduction

This conference is more important than ever as the world continues to look to the Middle East as a significant source of supply for its increasing energy needs. The theme “Meeting E&P Challenges to Energize the World” covers many areas of interest including:

- Giant Fields of the Middle East
- Arabian Platform Hydrocarbon Systems
- Geosciences of Carbonate and Clastic Reservoirs
- Advances in Geophysical Techniques
- Technology for Exploration and Production
- People, Technology and Data

The Technical Program will also include special sessions devoted to business issues and specialist topics. Additionally, a Management Forum is scheduled for the first day of the conference.

Pre- and post-conference field trips, short courses and forums are also planned to complement the technical program.

The Conference is being organized by the American Association of Petroleum Geologists (AAPG) and the European Association of Geoscientists & Engineers (EAGE), and hosted by the Dhahran Geoscience Society (DGS).

Committee

General Chair

Abdulla Al Naim

Short Courses Chair

Robert Ley

Technical Program Chair

Ibrahim Al-Ghamdi

Field Trips Chair

Bob Lindsay

Oral Sessions Co-Chair

Shivaji N. Dasgupta

Judging Chair

Fernando A. Neves

Poster Sessions Co-Chair

Ralph M. Bridle

Guest Activities Chair

Thereze Ward

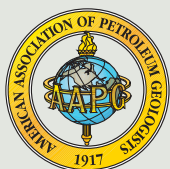
Management Session Co-Chair

Pinar O. Yilmaz



Support

Following societies support GEO 2006:



General Information

The venue

GEO 2006 takes place at the Bahrain International Exhibition Centre, a modern exhibition complex offering some of the finest exhibition facilities in the Middle East. It is conveniently situated within 5 minutes of downtown Manama and close to all the major hotels.

Exhibition opening hours

Monday 27 March	08.00 – 18.00 hrs
Tuesday 28 March	08.00 – 18.00 hrs
Wednesday 29 March	08.00 – 18.00 hrs

Registration opening hours

Friday 24 March	08.00 – 18.00 hrs
Saturday 25 March	08.00 – 18.00 hrs
Sunday 26 March	08.00 – 18.00 hrs
Monday 27 March	07.00 – 17.00 hrs
Tuesday 28 March	07.00 – 17.00 hrs
Wednesday 29 March	07.00 – 14.00 hrs

Advance Registration

Register by 10 March 2006 and save!

Online Registration

Visit the GEO 2006 website (www.aeminfo.com.bh/geo2006).

This is the most convenient way to register and is highly recommended.

Fax or mail

Complete and return the Delegate Registration Form enclosed in this final announcement to:

Arabian Exhibition Management WLL

Attn: Lara Bell

PO Box 20200

Manama, Bahrain

Tel: +973 17 550033

Fax: +973 17 553029

All registrations must be accompanied by full payment of delegate fees.

Onsite registration

Please note that registration during the conference itself is a very busy time and delegates may be subject to a delay. For further information contact lara@aeminfo.com.bh

Registration fees

Until Friday 10 March BD 225 (US\$ 595)
After Friday 10 March BD 245 (US\$ 650)

Registration fee includes:

- Admission to all conference sessions
- CD-Rom of conference proceedings
- Invitations to 3 official lunches
- Refreshments at tea and coffee breaks
- Free admission to the exhibition
- Complimentary copy of show catalogue and conference program

GEO 2006 BBQ Night

The highlight of the GEO 2006 social activities will be the conference barbeque, which takes place on Monday 27 March. The barbeque is an ideal icebreaker opportunity for speakers, delegates and exhibitors to mix in an informal environment.

The price per ticket is BD15 (US\$ 40) per person and includes dinner and live entertainment.

Tickets are available in advance through the GEO 2006 website (www.aeminfo.com.bh/geo2006) or by completing and returning the Delegate Registration Form enclosed in this final announcement.

University Faculty and Students

Registration for University Faculty and Students is complimentary, and includes admission to all conference sessions, the exhibition and tea and coffee breaks only.

Students and faculty are required to fax a copy of their ID with their registration form, or present their ID when they collect their badge onsite.

Cancellations and refunds

All cancellations or changes must be received in writing at Arabian Exhibition Management offices by 10 March 2006. All cancellations will be charged a fee of BD 38 (US\$ 100) per delegate. Refunds, less cancellation charges, will be made until 10 March 2006 after which date no refunds will be made.

Travel and hotel information

The organizers have awarded preferred hotel status to 4 Bahrain hotels: the Regency Intercontinental, the Diplomat Radisson SAS, Elite Suites and Crowne Plaza. They offer delegates and visitors special room rates and a courtesy bus service between the hotel and exhibition centre.

To book please contact Kanoo Travel, the official travel coordinators for GEO 2006, by completing and returning the enclosed Hotel/Travel Reservation Form enclosed in this final announcement.

Visas

By resolution of the Arab League, no Arab State recognizes the validity of a passport containing Israeli stamps. Visas are not required by GCC passport holders.

Passport holders from the following countries

Andorra, Australia, Austria, Belgium, Brunei, Canada, Denmark, Finland, France, Germany, Greece, Holland, Iceland, Ireland, Italy, Japan, Liechtenstein, Luxembourg, Malaysia, Monaco, New Zealand, Norway, Portugal, San Marino, Singapore, Spain, Sweden, Switzerland, Turkey, the UK, the USA and the Vatican City can obtain a two week visa on arrival at Bahrain International Airport at a cost of BD5 (US\$13).

- These visas can be extended by the organisers at the Exhibition Centre subject to approval by the Bahraini authorities.
- Exhibitors should ensure that they carry a letter

of authority from their company referring to the exhibition plus onward or return air tickets.

Passport holders from countries not listed above are requested to complete the enclosed Visa Application Form and return it to Arabian Exhibition Management together with clear copies of relevant passport pages by **1 March 2006**.

A charge of BD 21 (US\$56) is payable in advance and is listed in the Visa Application Form enclosed in this final announcement. The organizers cannot be held responsible for any visitor who fails to obtain a visa as they are issued entirely at the discretion of the Bahraini authorities. Contact Farishta Al Khan at farishta@aeminfo.com.bh for further information.

GEO 2006 Golf Tournament

For those looking to relax with clients and colleagues, the GEO 2006 Golf Tournament is set to take place on Sunday 26 March at Riffa Golf Club. A 07.30 shotgun start will be followed by lunch and prize giving at Riffa Golf Club.

Cost of participation

GEO delegate rate

BD 45 (US\$ 120)

- 18 hole green fee inclusive of cart and lunch

GEO delegate rate

BD 55 (US\$ 146)

- 18 hole green fee inclusive of cart, rental of club and shoes plus lunch

Riffa Golf Club is situated just 15 minutes drive from the capital city of Manama, and it is Bahrain's first international standard 18-hole grass golf course. Located in the historic Al Hunaniya Wadi, this 6817-yard, par 72, grass PGA-standard course features five lakes, more than 70 sand bunkers, over 500 date palms and 400 specimen trees. Designed by Karl Litten, the course has been acclaimed by locals and overseas visitors alike as challenging but fair.

Golf Tournament registration

Registration is possible by completing and returning the Golf Tournament Reply Form enclosed in this final announcement or directly at the Riffa Golf Club. Please return the Golf Tournament Reply Form by email to Maeve Galvin at maeve@riffagolfclub.com.bh or fax to +973 17 750756.





Technical Program

Sunday 26 March Afternoon Management Forum

Worldwide Oil and Gas Strategies: Keynote Session

Rooms 1 and 2 – 16:00-18:00 hrs

Chair: Abdulla Al Naim, Executive Director, Exploration, Saudi Aramco

A panel of senior executives will address worldwide oil and gas strategies from a Middle East perspective. The speakers will discuss strategic choices necessary for long-term success in the Middle East, including new relationships between governments and industry, access to additional capital for investments, and exploration success. In many areas, the manner and degree of cooperation between these entities may be a key determinant of the outcome.

Speakers invited include Saudi Aramco; Bapco (Dr. Mustafa Al-Sayed, Bapco President); Kuwait (Farouk Al-Zanki, Chairman and General Manager Kuwait Oil Company); ExxonMobil (Rick Vierbuchen, ExxonMobil Exploration Company Caspian Middle East Vice President); Total (Philippe Boisseau, Total Exploration & Production President Middle East); Kuwait, Qatar, Abu Dhabi, Shell, ConocoPhillips, Schlumberger, Repsol, and China.

Monday 27 March Morning

Geo 2006 Opening Ceremonies

Exhibits Hall – 9:00 - 10:30 hrs

Please participate in the opening of the Exhibition Hall as H. H. Shaikh Khalifa bin Salman Al Khalifa officially opens the GEO 2006 Conference and Exhibition. This important event is open to all registered GEO 2006 VIP's, delegates, visitors, and guests.

GEO 2006 Opening Session

Rooms 1 and 2 – 10:30 – 12:00 hrs

Chair: Abdulla Al-Naim, Saudi Aramco

H.E. Dr. Abdul-Hussain bin Ali Mirza, Minister of State and Chairman of the National Oil & Gas Authority and other dignitaries will welcome delegates and discuss their viewpoint of 'E&P for the Middle East'.

Monday 27 March Afternoon Oral

Reservoir Characterization I

Room 1

Co-Chairs: S. Ahmed, and S. Meddaugh

- 13:55 **Introductory Remarks**
- 14:00 **R. G. Blackford, M. Al-Awadi:** Shuaiba Formation: An Unconventional Reservoir in Kuwait
- 14:25 **W. S. Meddaugh:** Porosity Semivariogram Parameters for Carbonate Reservoirs
- 14:50 **B. Beiranvand:** Mapping and Classifying Flow Units in Upper Cretaceous Reef and Shoal Reservoirs in a Giant Field in Southwest Iran
- 15:15 **A. M. Bagheri, M. Mohammadnia, H. Hosseinpoursiami, A. Rahimibahar:** Characterization of Permeability in a Heterogeneous Clastic and Carbonate Reservoir, Asmari Formation
- 15:40 **Break**
- 16:30 **S. R. Narhari, S. K. Tanoli, H. Salem, H. Wu:** Exploration Potential of a Lower Cretaceous Section in Raudhatain Field, Kuwait
- 16:55 **Y. Dabbour, S. Al Hajeri, M. Ayoub, M. Ribeiro:** Rock Type Assignment Using Correlations Between Dynamic Rock and Fluid Property Interaction Data (Capillary Pressure and Relative Permeability), and Porosity
- 17:20 **G. N. Boitnott, W. T. Lauten, D. H. Jones, E. A. Clerke, J. J. Funk:** Pore Space Inversions for Petrophysical Rock Type Identification: Application to a Large Carbonate Reservoir
- 17:45 **M. Mortada, C. W. McCrone:** The Impact of Nubia Reservoir Quality on Reservoir Management, Gulf of Suez, Egypt

Multidisciplinary Integration

Room 2

Co-Chairs: M. Al-Harthy, and M. Al-Saeed

- 13:55 **Introductory Remarks**
- 14:00 **G. Bloch, I. Sener, J. Gomes, A. Gyllensten, K. Khalaf, B. Al Mulla:** Value of Petroleum Resource Classification Systems
- 14:25 **U. P. Baaske, M. Mutti, F. Baioni, G. Bertozzi:** Integrating Seismic Multi-Attribute Classification and Forward Stratigraphic Modeling in Mid-Cretaceous Carbonate Sequences, Arabian Gulf, Offshore Iran
- 14:50 **U. Strecker, M. Carr, S. Knapp, M. Smith, R. Uden, G. Taylor, M. T. Taner:** Seismic Attribute Analysis in Paleozoic Hydrothermal Dolomite
- 15:15 **E. Insalaco, P. Masse, F. Walgenwitz, M. Sudrie, A. Meyer, P. Thiry-bastien, A. Roumagnac, F. Vieban, M. Lescanne, C. Fraisse, J. Gaillot:** High-Resolution Reservoir Correlation: An Integrated Approach with Sequence Stratigraphy, Geochemical and Biostratigraphical Studies of the Permo-Triassic Transition Within the Khuff (Dalan/Kangan) Formation
- 15:40 **Break**

- 16:30 **I. I. Fahmy, Sr., Y. Z. Ma, Sr., F. A. Allam, E. Gomez, S. Yousef, Sr., S. Bustami, A. Zeina, A. A. Hassan, H. Nassar:** Modeling a Fractured Reservoir for a Brown Field by Integrating Geologic and Production Data
- 16:55 **P. Tardy, S. Hunedi*, C. Gout, J. P. Fossey, L. Moen-Maurel:** Oil Rim Development under an Exploited and Cycled Gas-Cap – Optimization through 2G&R Integrated Stochastic Workflow
- 17:20 **S. B. Coskun, H. J. Lewandowski, S. I. Ozkaya, R. Oosthuizen:** Near-Wellbore Black Oil Simulation to Evaluate Fracture Flow Potential in a Tight Reservoir in Kuwait
- 17:45 **M. Morales Leal, M. A. Mercado Ortiz, G. Tirado Vargas, R. Nieves Gonzalez, J. Acosta, W. Gambaretto, F. Robles, J. Hurtado, J. Pastor*, M. Gomez:** Multidisciplinary Solution to Enhance a Field Development Plan in Burgos Basin, North Mexico

Geophysical Techniques on Land I

Room 3

Co-Chairs: B. P. Collins, K. S. Al-Deen, and R. Burnstad

- 13:55 **Introductory Remarks**
- 14:00 **W. Zhu, K. Alrufaii, P. Kelamis:** Model-Driven Land Multiple Suppression: The Third Generation
- 14:25 **E. Verschuur, M. N. Al-Ali:** Complex Near-Surface Problems Management Using the CFP_Technology – Part 1: Principles
- 14:50 **M. N. Al-Ali, E. Verschuur:** Complex Near-Surface Problems Management Using the CFP Technology – Part 2: Applications
- 15:15 **K. Alrufaii, K. Fang:** Restoring High Resolution in Surface Seismic Data
- 15:40 **Break**
- 16:30 **A. Jerome, M. Edouard, D. Gregory:** Land Surface Waves: A Quantitative Geophysical Tool
- 16:55 **I. Vosoughi-Niri:** Scalar Controlled-Source Audio Magnetotellurics (CSAMT) Applied to Woxi Au-Sb-W Deposit, Hunan, China
- 17:20 **J. Pruessmann, M. Tygel, F. Gamboa, R. Coman:** Multiple Suppression by the CRS Technique
- 17:45 **M. E. Hedefa, W. X. Zhu, K. O. Rufaii:** Evolution of Pre-Stack Multiple Suppression Based on Velocity Discrimination

Overpressure Environment: From Seal Rocks to Stress Paths During Depletion of the Reservoir – Seal Integrity and Capacity

Room 4

Chair: S. Al-Anzi

- 13:55 **Introductory Remarks**
- 14:00 **A. M. Manowar Ahmed, S. K. Tanoli, M. Al-Wadi, A. Al-Edan:** Onset of Overpressures and Their Relationship with Depth, Stratigraphy and Tectonic Settings in Kuwait
- 14:25 **P. Kukla, S. Ochs, Z. Rawahi, M. Newall:** Distribution and Mechanisms of Overpressure Generation and Deflation in the Neoproterozoic South Oman Salt Basin
- 14:50 **M. Al-Hajeri, P. Y. Chenet*, A. Al-Khamiss, S. K. Bhattacharya, M. Pernelle, N. Bianchi:** Regional Overpressure Modeling in Onshore Kuwait: Impacts on Pressure Prediction before Drilling and Petroleum System Behaviour

Geochemistry, Source Rocks and Geochemical Techniques

Room 4

Co-Chairs: R. B. Wheeler, and A. A. Abdullah

- 16:25 **Introductory Remarks**
- 16:30 **I. Kowalewski, T. Parra, V. Lamoureux-Var, F. Lorant:** H₂S Production in Petroleum Reservoirs During Steam Injection Process: TSR Experimental Simulation
- 16:55 **P. Y. Chenet, N. Bianchi, M. Pernelle, A. Prinzhofer, F. Lorant, S. K. Bhattacharya, A. Al-Khamiss, M. Al-Hajeri:** Oil and Gas Fingerprinting in Onshore Kuwait: Implications for the Petroleum System
- 17:20 **P. Taylor, E. Idiz, G. Macleod, M. Al Ghammari, S. Ochs:** Understanding the Geological Controls on Fluid Properties in the Carbonate Stringer Play of South Oman
- 17:45 **G. A. Mohajer, Sr.:** The Importance of Primary Migration in the Persian Gulf Area

Interplay of Basin Tectonics, Structural Style and Sedimentation

Room 5

Co-Chairs: E. Blanc, M. Khalil, and A. Siddiqi

- 13:55 **Introductory Remarks**
- 14:00 **S. Lange, J. Mattner, J. Teasdale:** Structural Evolution of the Wajid Area, Western Rub Al-Khali Basin, Saudi Arabia
- 14:25 **T. Mitra, A. Maitra, R. Misra:** Synrift Tectonics and Depositional Pattern at North Cambay Basin, India
- 14:50 **P. G. Stuart-Smith, K. Romine, J. Teasdale, J. M. Schreurs:** Basement Control on Structure and Evolution of the Salt Basins of Oman
- 15:15 **J. C. Hohman, I. A. A. Al-Emadi, M. E. Zahran:** Sequence Stratigraphy of the Shuaiba-Hawar (Biyadh) Tectonostratigraphic Sequence: Initiation, Development, and Demise of a Carbonate Platform in a Siliciclastic-Dominated Setting
- 15:40 **Break**
- 16:30 **P. A. Kukla, M. Mohr, J. L. Urai:** Responses of Salt Tectonism and Sedimentation to Changing Regional Stress Fields
- 16:55 **H. Munsch, E. Insalaco, M. Lescanne:** Regional-Scale Seismic Interpretation in the Gulf and Its Implication for the Understanding of the Khuff System
- 17:20 **I. A. Abbasi:** Tectonics of Afghan-India Collision Zone, Kuram-Waziristan Region, North Pakistan
- 17:45 **A. D. Horbury, A. A. M. Aqrawi:** Play Fairway Development Within Highstand and Lowstand Platform Systems in the Late Cretaceous of Northern Arabia

Structural Controls on Hydrocarbon Traps of the Arabian Plate

Room 6

Co-Chairs: P. G. Nicholson, and S. I. Ozkaya

- 13:55 **Introductory Remarks**
- 14:00 **W. Voggenreiter, J. Teasdale*, K. Romine, P. Stuart-Smith:** Structural Evolution of the Eastern Arabian Terrane: Basement to More than Twenty Percent of the World's Petroleum
- 14:25 **R. P. George, G. J. Grabowski, B. DeMonteynard, M. J. Hardy, N. I. Muatov, C. G. Willan, W. B. Maze:** Uplift and Subsidence of the Southeastern Portion of the Arabian Plate from Triassic to Early Cretaceous
- 14:50 **H. Xiao, A. Knowlton, M. Rademakers, D. Cook:** Structural Styles in Central and Eastern Saudi Arabia
- 15:15 **M. H. AL-Kindi, M. Casey, R. Butler:** Structural Evolution and Fracture Patterns in the Front Range of Northern Oman Mountains
- 15:40 **Break**
- 16:30 **M. G. Kumpas, A. J. Al-Eidan:** Upper Cretaceous Fault Trends in the Bahra Area, North Kuwait
- 16:55 **A. F. Iraj, S. Shahram, L. Jean:** Neogene Salt, Southwest Iran, and Interaction with Zagros
- 17:20 **H. E. Edwards, K. H. Sit, H. A. B. Al-Rougha:** Seismic Structural Characterization of Fault Zones in Early Cretaceous Carbonates, Offshore Abu Dhabi
- 17:45 **P. G. Nicholson, R. H. Groshong, Jr.:** A Structural Model for Typical Hydrocarbon Traps in Saudi Arabia

Group 1 Posters – Monday 27 March 09:30 – Tuesday 28 March 12:00

Hydrocarbon Systems

Exhibition Hall 2

Co-Chairs: D. Dessort, and F. Vieban

- **M. Senalp:** Sequence Stratigraphy of the Permo-Carboniferous Unayzah Reservoir in Saudi Arabia and Its Correlation with Oman
- **L. Soori, H. Rahimpour Bonab:** Depositional Environment and Diagenesis of the Fahlyian Formation Southwest of Iran
- **M. Senalp:** Sedimentology of the Incised Valleys and Their Associated Lowstand Deltaic Sequences in the Ash-Shiqqah Formation of the Unayzah Reservoir, Saudi Arabia
- **D. P. Le Heron:** Glaciogenic Reservoir Intervals of North Africa and the Middle East: Regional Controls on Sediment Quality
- **S. Al Haddad, F. H. Nader, R. Swennen, R. Littke:** The Hasbaya Asphalt (Lebanon) Revisited: Some Remarks from Detailed Field Mapping, Petrographic and Geochemical Studies
- **S. Kindy, S. Ochs, P. Taylor, J. Millson:** The Charging System of the Lower Cambro-Ordovician Gas Reservoirs of North Oman

- **D. Mohamed: Infracambrian Sequence:** New Petroleum Play in the Southwestern Sahara, Algeria
- **J. H. Pedersen, D. Karlsen, J. E. Lie, H. Brunstad:** Palaeozoic Petroleum Systems of Southern Norway

Carbonate Settings and Depositional Environments

Exhibition Hall 2

Co-Chairs: T. C. O'Hearn, C. Javaux, and A. Alsharhan

- **U. P. Baaske, M. Mutti, M. Hain, N. De Marchi, G. Bertozzi:** Control of Deep-Seated Salt Tectonics and Eustacy on the Stratigraphic Architecture of Mid-Cretaceous Carbonate Strata in the Central Arabian Gulf, Offshore Iran: A Seismic Sedimentological Study
- **P. M. Driessen, H. Droste, P. de Boer:** Geomorphology and Evolution of the Lower Cretaceous Carbonate Platform Margin, North Oman
- **P. Homewood, M. Mettraux, V. Vahrenkamp, K. Collerson, A. Kwarteng:** Lag Time in the Sedimentary Record at Bar Al Hikman – Part 2: Constraints on Modern Analogs for Carbonate Geobodies in Cretaceous Reservoir Models
- **R. Dashti:** Petrophysical and Reservoir Quality Evaluation of the Shuaiba Formation in the Reshadat Field, Offshore Iran
- **C. J. Strohmenger, H. Shebl, A. Al-Mansoori, K. Al-Mehsin, O. Al-Jeelani, I. Al-Hosani, A. Al-Shamry, S. Al-Baker:** Depositional Environment and Sea-Level History of the Abu Dhabi Sabkha in the Vicinity of Al-Qanatir Island, United Arab Emirates
- **B. Beiranvand:** Carbonate Facies Analysis and Geological Modeling of Cenomanian-Turonian Sediments (Sarvak Formation) in a Giant Field in the Southwest of Iran
- **M. C. Pöppelreiter, L. Poyser:** Uncertainty Quantification in a Micro-Porous, Fractured Limestone Reservoir (Kharab Formation, Lekhwair Field, Northwest Oman)
- **S. Avarjani, H. Mohseni, S. Khodabakhsh, A. Ghobishavi, H. Amiri-Bakhtiyar:** Microfacies and Depositional Environments of Fahliyan Formation in the Dezful Embayment, Zagros Basin, Southwest Iran: Implications for Porosity Distribution

Structural Controls on Hydrocarbon Traps of the Arabian Plate

Exhibition Hall 2

Co-Chairs: P. G. Nicholson, and S. I. Ozkaya

- **M. A. Al-Duhailan, M. Khalil:** Insight on the New Exploration Potential in the Northern Ghawar Environs, Saudi Arabia: New Support from Technology and Structural Analysis
- **E. Al-Muzaiyen, M. Khalil, M. Al Marhoon:** Tilt Derivative Filtered Potential Fields Data Unravel the Paleozoic Structure Image in Tinat Field, Saudi Arabia
- **M. AL-Wardi, R. W. H. Butler:** Differential Exhumation and the Structural Evolution of the Northern Oman Mountains

- **T. Finkbeiner, J. Avila, M. Van den Berg, J. Filbrandt, S. Mahruqi:** Constraining In-Situ Stress in North and South Oman with Implications for Exploration and Drilling
- **S. I. Ozkaya, H. J. Lewandowski, S. B. Coskun:** Integrated Fracture Study of a Low Permeability Reservoir, Kuwait

Reservoir Quality Prediction and Formation Evaluation

Exhibition Hall 2

Co-Chairs: K. Hughes, and S. Crary

- **T. M. Okasha, A. A. Al-Shiwaish:** Investigation of the Effect of Temperature and Pressure on Interfacial Tension and Wettability of Shu'aiba Reservoir, Saudi Arabia
- **H. Hosseinpoursiami, A. Rahimibahar, M. Mohammadnia, A. Bagheri:** Prediction of the Permeability Via Neural Networks and Fuzzy Logic in a Heterogeneous Carbonate Reservoir, Iran
- **P. Mukerji, P. Baux:** Profiling Complex Flow in Deviated Wells: A North Sea Case Study
- **M. F. Al-Ajmi, A. Khan:** Improved Core Quality Through Application of a Low- Invasion Water-Based Mud, Tracer Technology, Half-Moon Inner-Barrel Coring, and Improved Wellsite Core Handling in a Sandstone Reservoir in North Kuwait for Oil-in-Place Calculations and Development Planning
- **S. Tanprasat, N. Hurley:** Petrophysical Analysis of the Famous Early Cretaceous Reservoir of the Large Oil Field in Onshore Abu Dhabi
- **Z. Al-Rawahi, X. Marquez, J. Rodrigues:** Diagenetic Controls on Pre-Cambrian-Cambrian Ara Carbonate Reservoir Quality: A Case Study from the South Oman Salt Basin
- **J. D. Rao, C. B. Reddy, M. Y. Mohamed, M. M. Faqihi:** Potential Opportunities Below the Oil-Water Content of the Arab D Reservoir, Awali Field

Seismic Imaging: Case Studies

Exhibition Hall 2

Co-Chairs: S. C. Kellogg, S. Jicheng, Sr, and H. Zubari

- **S. Tarkhan, IV, H. Tahani, Jr.:** Optimum 3-D Seismic Designing in Bibi Hakimeh Oil Field, Iran
- **Ringoringo, R. Raguwanti, W. Hindadari:** The Influence of Geophysical Modeling for Vertical, Directional and Horizontal Drilling in Carbonate Gas Reservoirs of Batu Raja Formation, South Sumatra, Indonesia
- **M. G. Al-Otaibi, A. S. Laota, F. M. Al-Khaldi:** The Polynomial Method: An Accurate Tool to Estimate Reservoir Depths
- **B. Reddy, N. A. Qassim:** Imaging of Cretaceous Fault System: A 3-D Seismic Case Study in Onshore Bahrain

Seismic Modeling

Exhibition Hall 2

Co-Chairs: M. Soliman, and C. E. Shepherd

- **M. S. Nahhas, M. Boekholt, F. Al Shekaili:** A Novel Approach to Processing Vibroseis/ Transition Zone Seismic Data
- **J. Stein, J. Weigant, G. Perry, J. Tinnin, T. Langston:** High-Resolution Processing: From Data Preparation to Imaging and Velocity Models to Inversion
- **R. Holzner, P. Eschle, P. F. Meier, S. Dangel:** Linear Model for Low-Frequency Pore Liquid Oscillations Observed in Hydrocarbon Microtremor Analysis (HyMAS)
- **M. Lambert, S. M. Schmalholz, Y. Podladchikov, R. Holzner, R. Dewarrat, P. Eschle:** Using Low-Frequency Ambient Seismic Vibration Spectra to Detect Hydrocarbon Reservoirs: A Numerical Approach
- **G. A. Bayramova, N. A. Kasyanova:** Oil and Gas Prospects Within the North and Middle Caspian Sea and Geodynamic Interpretation of Geological and Geophysical Data
- **M. L. Pittman, R. Bridle, R. E. Ley, II, A. A. Mustafa:** Evolution of a Near-Surface Model in an Area of Complex Topography
- **O. A. Ahmed, R. Abdel-Aal, H. Al Mustafa:** Predicting Log Properties from Seismic Data Using Abductive Networks
- **R. K. Pathak, M. Faqih:** Investigating Lamé's Parameters for Identification of Gas- Bearing Unayzah Formations at Awali Field, Bahrain

Applied Technology Case Studies

Exhibition Hall 2

Co-Chairs: F. Ortigosa, and J. Sieverding

- **F. M. Khene:** Multiscale Analysis of Well Logs
- **D. J. Ali, D. R. Van Borselen:** Adaptive Subtraction of Multiples: A Case History from the Middle East
- **H. Ning, Y. He, S. Zhang, W. Jiao:** 3-D Seismic Acquisition in a Complex Urban Area of Yumen City, Western China
- **M. Cardamone:** Stochastic AVO Modeling and Bayesian AVO Inversion to Predict Hydrocarbon Versus Brine Occurrence in Sand Reservoirs
- **J. W. Tucker:** New Life from Old Data: Processing and Interpretation of Older Diplogs with Modern Techniques, and an Example of Glacial Environment Interpretation

Reservoir Monitoring and Management

Exhibition Hall 2

Co-Chairs: M. A. Emadi, and K. Al-Anzi

- **N. Abdel Hameed, K. B. Trivedi:** Injection Well Testing: A Case Study from Unity Area, Muglad Basin, Sudan
- **W. R. Wright, S. Bishop, C. J. Strohmenger, S. Ali, A. El-Agrab, R. M. Rosell, III:** Dolomitization and Reservoir Quality in the Arab and Asab Formations (Upper Jurassic, United Arab Emirates)
- **A. Al-Muftah, W. Vargas, C. Murty, A. Abdulwahab:** Rapid Assessment Techniques for Reservoir Optimization and Monitoring, Maaddud Reservoir, Bahrain Field
- **D. Mandal, A. Qazi, A. Bu-Qurais:** Lessons Learned as Multidisciplinary Team Investigates Poor Injectivity to Optimize Current Development and Design Future Waterflood Expansion in Raudhatain-Zubair in North Kuwait
- **F. Shamsan, K. Kumar:** Integrating Geological Maps with GIS Leads to Optimum Well Locations
- **J. Indrelid, M. Yaarubi:** New Geological Data from a Pilot Campaign Illuminates the Understanding of Existing Waterflood Development
- **E. J. Follows, S. Al Salmi:** Combining New Core Data with Surveillance Sharpens the Geological Understanding of a Decades-Old GOGD Field Development
- **R. Hidayat, A. P. Handoyo, P. Adiarto:** The Integration of Acceleration Project of a Developing Gas and Oil Field – Case Study: Structure “ KRB” PT. Pertamina DOH JBB - Indonesian

Reservoir Modeling and Case History Studies

Exhibition Hall 2

Co-Chairs: A. M. Apanel, and J. H. Anderson

- **B. V. Ibrahimov:** Markov Chains for the Reconstruction of Sedimentary Environments
- **R. R. Darwish, S. Al-Suwaidi, A. Badawy, A. Hathat:** Integrated Static and Dynamic Modeling Approach in One of Thamama Gas Reservoirs of Onshore Abu Dhabi
- **S. S. Zaimy Taklimy:** Integrated Recovery Model and New Correlation for Middle East Carbonates
- **S. Fryberger, S. Al Kindy, H. Najwani:** High-Frequency Interbedding of Dune and Extradune Sediments in the Cambrian Amin Formation in North Oman: Control on Reservoir Properties with Analogues from Modern Sediments of Oman
- **T. Loretto, A. Al-Mousa:** The Use of Seismic Impedance to Locate a Discovery Well, South of Ghawar Field
- **A. Taghavi, T. Jacobsen, M. Synnøve Hatløy, A. Mørk:** Rock-Type-Based Reservoir Modeling in Carbonates, the Upper Sarvak Formation: A Case Study, Southwest Iran
- **L. Tahani, N. Alizadeh:** Simulation of Waterflooding in an Offshore Oil Reservoir in Order to Improve the Recovery Factor
- **A. Mohammed, Sr., A. M. Ziada, I. Kamil, O. A. Salih, H. A. Mutwakil:** Enhancement of Oil In Place Through Reservoir Modeling of a Multilayered Siliciclastic Reservoir: A Case Study from Muglad Basin, Sudan

Tuesday 28 March Morning Oral

Carbonate Settings and Depositional Environments

Room 1

Co-Chairs: T. C. O'Hearn, C. Javaux, and A. Alsharhan

- 07:55 **Introductory Remarks**
- 08:00 **H. Droste, M. Van Steenwinkel:** A New Model for Epeiric Carbonate Platforms
- 08:25 **S. K. Singh, A. Al-Dohiem, M. Al-Baghli, T. Al-Adwani, T. O'Hearn, T. Lomando:** Play Concept Evolution and Exploration Success for the Marrat Formation in Kuwait
- 08:50 **B. Al-Qayim:** Sag-Interior Oligocene Basin of North-Central Iraq: Sequence Stratigraphy and Basin Overview
- 09:15 **Y. S. Al-Mehairi, S. Rassas, A. Al-Shaikh, I. Al-Hosani, S. Karri, T. A. Obeida, L. Yearron, S. Cannon:** Unified Structural and Stratigraphic Model for Giant Field in Abu Dhabi Company
- 09:40 **Break**
- 10:30 **A. Siddiqui, S. Saner, W. M. Abdulghani:** Silica Occurrences in the Upper Jurassic Arab Carbonate Reservoirs, Saudi Arabia
- 10:55 **S. N. Ehrenberg, T. A. Svånå, P. K. Swart:** Uranium Decrease Marks the Permian/Triassic Boundary in the Khuff Formation, South Pars Field, Offshore Iran: Why?
- 11:20 **P. Homewood, M. Mettraux, K. Collerson, A. Kwarteng:** Lag Time in the Sedimentary Record at Bar Al Hikman – Part 1: Predominance of Reworked Material in the Modern Carbonate System
- 11:45 **I. Al-Hosani, C. J. Strohmenger, A. Al-Mansoori:** High-Resolution Sequence Stratigraphy and Reservoir Characterization of a Lekhwair Reservoir Unit (Lower Cretaceous, United Arab Emirates)

Integrated Geophysical Studies

Room 2

Co-Chairs: P. Lanfranchi, and A. Al-Shuhail

- 07:55 **Introductory Remarks**
- 08:00 **M. I. Al-Marhoon, A. Ahmad, S. Franks, K. G. Makridis, M. J. Sadeg, A. K. Norton, M. H. Khalil, S. G. Cheshire, A. S. Neville:** An Integrated Study that Opened New Opportunities
- 08:25 **T. M. Sodagar:** 3-D Seismic Attributes Reveal Unayzah Secrets in South Ghawar, Saudi Arabia
- 08:50 **J. Owusu, Q. Liu, J. Alnemer:** Fracture Detection by P- and C-Wave Anisotropy from Multi-Offset VSP
- 09:15 **A. A. BenMahfooz, F. A. Neves, R. J. Price:** Waveform Lateral Classification for Regional Facies Prediction
- 09:40 **Break**
- 10:30 **A. Laake, H. Al-Alawi, R. Gras:** Integration of Remote Sensing Data with Geology and Geophysics: A Case Study from Bahrain
- 10:55 **H. Friesacher, J. Schreurs, P. Engbers, A. Al-Harthy:** The Silicilyte Play in Oman

- 11:20 **J. Al-Genai, T. Hussain, M. Abdul-Razak, P. Dutta, O. Khalid, R. Ramirez:** Detailed Depositional Architecture of the Wara Formation in the Waterflood Pilot Area of Greater Burgan Field
- 11:45 **A. R. Brown:** Phase and Polarity Issues in Modern Seismic Interpretation

Reservoir Characterization II

Room 3

Co-Chairs: F. Al-Medhadi, and S. Ahmed

- 07:55 **Introductory Remarks**
- 08:00 **W. S. Meddaugh:** Impact of Earth Model Workflow and Up-Scaling on Fluid Flow Response Reservoir Modeling in Mature Fields
- 08:25 **C. J. Heine, J. Wilkins, J. E. Nieto:** Seeing Is Believing: Object-Based Facies Distribution and Porosity Modeling Using Facies-Based External Histograms Puts Geology Back into Geostatistics
- 08:50 **M. R. Wani, S. K. Al-Kabli:** Reservoir Characterization and Stochastic Modeling of the Second Eocene Dolomite Reservoir, Wafra Field, Divided Zone, Kuwait-Saudi Arabia
- 09:15 **E. A. Clerke, H. W. Mueller, III:** The Rosetta Stone Project – I: Spectral Analysis of Pore Geometries and Their Relationships to Depositional Facies for the Arab D Limestones

Special Session: Current Events

Room 3 – 10:25-12:10 hrs

Co-Chairs: S. Al-Hajri, H. Al-Qassab, and P. O. Yilmaz

Forecasters have been regularly predicting the end of the 'petroleum era' since oil was first discovered in 1800s. Although these forecasts have been proven wrong over and over, the pessimism continues today. There have been new publications on 'peak oil' production and rapid decline curves. A panel of speakers will address the question – "Are we running out of oil in this century?" The presentations will be followed by a Question and Answer session. Speakers invited include Saudi Aramco, ExxonMobil, and USGS. Confirmed speakers and their general topics are the following:

- P. R. Rose:** Oil and Gas Reserves Estimating – We Have Met the Enemy, and He is Us
- B. Seiller:** Total's Approach to Reserve Estimates

Porosity and Fluid Detection in Complex Reservoirs

Room 4

Co-Chairs: J. Al-Humoud, and D. L. Cantrell

- 07:55 **Introductory Remarks**
- 08:00 **T. H. Keho, L. W. Smith, M. K. Broadhead, F. A. Neves:** Synthetic Seismogram Analysis of Unayzah Reservoirs in Saudi Arabia
- 08:25 **A. M. Bagheri, M. Fasih, S. H. Bagheri Rezazadeh, H. Alokhi Bakhtiari, T. Røsaasen:** Meeting the Challenges in Saturation Modeling of a Complex Reservoir
- 08:50 **L. B. Smith, G. Davies:** Hydrothermal Dolomitization and Leaching of Carbonate Reservoirs
- 09:15 **R. M. Masoud, D. O. Surja:** Detection of Oil/Condensate Droplets in a Gas Reservoir
- 09:40 **Break**
- 10:30 **J. Schoenherr, J. L. Urai, R. Littke, P. A. Kukla, M. Newall, N. Al-Abry, Z. Rawahi:** Halite and Solid Bitumen Plugging in the Intra-Salt Carbonate Stringers of the South Oman Salt Basin
- 10:55 **R. J. Griffiths:** In-Situ Water Salinity and Saturation Determination from Simultaneous Logs
- 11:20 **A. M. Lyne, A. Riva, P. Gossenberg:** Early Detection of Biodegraded Oil Using NMR Downhole Logs and Hydrocarbon GC-MS Analysis on Sidewall Cores
- 11:45 **D. R. Smith:** Fluid Characterization Using 2-D Plots from NMR Logs in North Kuwait Reservoirs

Selected Analogs from Africa and Europe

Room 5

Co-Chairs: A. Akinpelu, and S. Abdelmoaty

- 07:55 **Introductory Remarks**
- 08:00 **M. Waly, T. Maher, H. Aly:** Origin of Hydrocarbons of East Abu Gharadig Sub-Basin, Western Desert, Egypt
- 08:25 **Z. Nennouche, F. Ben Amor, F. Benrabah:** Reservoir Characterization and 3-D Modeling of Hassi R'Mel South Field (HRS), Algeria, Using Petrel Workflow Tools
- 08:50 **M. W. Ibrahim:** Undeveloped Fields and Remaining Potential of a Typical Sirte Basin Graben, Libya
- 09:15 **T. Aigner, R. Borkhataria, K. Pipping:** "Layer-Cake" Gas Reservoirs in Triassic Carbonates of the Netherlands: Understanding an Analog for the Khuff of Arabia
- 09:40 **Break**
- 10:30 **M. Sudrie, B. Caline, M. A. Lopez-Horgue, P. A. Fernandez Mendolia, E. Iriarte:** Fault-Related Hydrothermal Dolomites in Cretaceous Platform Carbonates from the Karrantza Area (North Spain): Outcrop Analogue for Dolomite Reservoir Characterization
- 10:55 **M. A. Abdalla, K. B. Trivedi:** Single- and Multi-Story Sandstone Bodies, Their Geometry, Stratal Pattern and Relevance for Identification of Facies Heterogeneity in Muglad Basin, Sudan
- 11:20 **S. Mahfoud, Jr., S. Nabil, Jr.:** Structures, Kinematics and Petroleum System of the Algerian Deepwater Offshore
- 11:45 **M. Nashaat:** Hydrocarbon Entrapment Mechanics in the Eastern Mediterranean Nile Delta Cone: Consequences of an Overpressured Environment

Near-Surface Geophysical Techniques

Room 6

Co-Chairs: T. Al-Khalifah, M. Durandeu, and K. Al-Rufaii

- 07:55 **Introductory Remarks**
- 08:00 **J. R. McNeely, R. E. Ley, II, N. Barsoukov, R. Bridle, M. A. Homaili, B. R. Maddison:** Near-Surface Models for Transition Zone Data in the Arabian Gulf
- 08:25 **A. Vesnaver, R. Bridle, R. Ley, R. W. Rowe:** Geostatistical Recipes for Near Surface Modeling
- 08:50 **H. Trappe, J. Pruessmann:** CRS Processing: A Key to Improved Static and Dynamic Corrections in Seismic Data from Saudi Arabian Deserts
- 09:15 **Z. Heilmann, M. Von Steht, I. Koglin, T. Kluever, C. Jaeger:** CRS-Stack-Based Seismic Imaging Considering Top-Surface Topography
- 09:40 **Break**
- 10:30 **T. Alkhalifah, C. Bagaini:** Fast and Easy Near Surface Correction of an Arabian Peninsula Seismic Line Using the Topographic Datuming Operator
- 10:55 **P. Van Mastrigt:** Land Seismic Static Corrections in the Rub Al-Khali Desert
- 11:20 **A. Jerome, M. Edouard, D. Gregory:** Underwater Marine Surface Waves
- 11:45 **F. Khene:** The Potential of Blind Source Separation Techniques for Multiple Suppression

Tuesday 28 March Afternoon Oral

Hydrocarbon Systems

Room 1

Co-Chairs: D. Dessort, and F. Vieban

- 13:55 **Introductory Remarks**
- 14:00 **B. Badics, M. Rashidi:** Basin Modeling Study of the Anaran Block, Iran
- 14:25 **J. Melvin, R. A. Sprague:** The Sedimentology and Stratigraphic Architecture of Late Carboniferous to Early Permian Glacigenic Deposits in Lower Unayzah Reservoirs, East-Central Saudi Arabia
- 14:50 **C. Toland:** The Khuff Formation: Outcrop Analogues from the Oman Mountains
- 15:15 **A. Al-Khamis, S. K. Bhattacharya, M. Al-Hajeri, N. S. Rao, P. Y. Chenet*, N. Bianchi, M. Pernelle, A. Prinzhofer:** Petroleum Systems in Onshore Kuwait: From Paleozoic Deep Targets to Cretaceous
- 15:40 **Break**
- 16:30 **R. Frijhoff, M. Lechner, N. Wassouf, R. Pimentel, F. Kabbesh, B. Mahmoud, M. Ahmad:** Evaluating the Palaeozoic Gas Potential of the Euphrates Graben, Syria
- 16:55 **F. A. Lawa, F. M. Albayati:** Sequence Stratigraphy, Facies Associations and Petroleum System of Maastrichtian-Selandian-Thanetian-Yepressian and Lutetian Successions from Kurdistan Region, Northeast Iraq

- 17:20 **H. E. Edwards, S. Chakravorty, H. B. Al-Rougha:** Characterization of Fracture-Fault Systems in an Early Cretaceous Reservoir, Offshore Abu Dhabi: Implications in Mature Field Development
- 17:45 **A. Al-Laboun:** Hydrocarbon Potential of the Al-Qassim Region, Central Arabia

Seismic Imaging: Case Studies

Room 2

Co-Chairs: *S. Jicheng, H. Zubari, and S. C. Kellogg*

- 13:55 **Introductory Remarks**
- 14:00 **H. Trappe, G. Gierse, S. J. Robinson, E. Møller Nielsen, M. Owens, R. Coman:** 3-D CRS Imaging for Recovering High Subsurface Resolution from Sparse 3-D Seismic Surveys
- 14:25 **C. Van Eden, S. Al-Shukeiry, J. Rehling, H. Rynja, R. Cole, W. Mansour, P. Schoepffer, N. Benjamin, J. Croese, O. Khakimov:** Fahud Changing Image – Seismic Processing Contribution to the Rejuvenation of Oman’s Oldest Oil Field
- 14:50 **B. Biondi:** Subsalt Imaging: Beyond Depth Migration and Model Building
- 15:15 **T. Alkhalifah, S. Alsharif, K. Belaid:** Prestack 3-D TAU Migration and Velocity Analysis: Focusing 3-D Data from Offshore Abu Dhabi
- 15:40 **Break**
- 16:30 **T. Nafie, W. Gowans, P. Dutta:** An Integrated 3-D Surface and Borehole Seismic Approach to Better Understand a Complex Reservoir: Case History from West Kuwait
- 16:55 **F. Kierulf, A. Fox, L. F. LaFreniere:** 3-D Pre-Stack Depth Migration of a Land Survey with Considerable Multiple Interference: A Case History
- 17:20 **M. Hall, V. Miroshnikov, S. Bidikhova, Y. Yan:** Depth Imaging a 2-D Saudi Aramco Seismic Line
- 17:45 **K. T. Thayyil, R. Bridle:** Resolution of Static Corrections in Sand Dune Regions: A Successful Case History

New Insights from Carbonate Reservoir Characterization

Room 3

Co-Chairs: *H. Al-Alawi, and S. Al-Sabea*

- 13:55 **Introductory Remarks**
- 14:00 **J. K. Warren:** Worldwide Compilation of the Formative Properties of Giant and Supergiant Carbonate Fields Sealed by Bedded Evaporites
- 14:25 **R. Shaikh, T. Pearce, M. Dix:** Using Elemental Chemostratigraphy for Improved Zonation and Correlation of the Cretaceous Mishrif Carbonate Reservoir, Arabian Gulf
- 14:50 **D. Palermo, S. Nardon*, W. Blendinger, T. Aigner:** Outcrop Study Combined with 3-D Petrel Modeling of a Khuff Reservoir Analog: Insights into “Layer-Cake” Stratigraphy
- 15:15 **A. Meyer, C. Javaux, M. Sudrie, F. Walgenwitz, E. Insalaco:** Diagenesis of the Upper Khuff (Permo-Triassic) Formation and Its Impact on Reservoir Characterization
- 15:40 **Break**

- 16:30 **C. Hollis, C. Taberner*, M. Caputi, Y. Huang, V. Volker, T. Musallameh, I. Abu-Shiekah:** Characterization of Early Diagenetic Cementation in the Natih Formation, Oman, and Its Impact on Reservoir Sweep
- 16:55 **E. A. Clerke:** The Rosetta Stone Project – II: Spectral Analysis of the Pore Geometries and Their Relationships to Reservoir Properties for the Arab D Limestones
- 17:20 **C. Javaux:** Which Reservoir Layering for Carbonate Reservoirs? Depositionally or Diagenetically Driven?
- 17:45 **S. Kumar, G. Pages, J. M. Garitty, T. Lein-Mathisen, C. Boibiean, D. L. Barge:** Traditional Geological Model Humma Marrat Reservoir-Divided Zone Between Kuwait and Saudi Arabia

Fractured Reservoirs

Room 4

Co-Chairs: M. Alfaraj, and O. Schoenicke

- 13:55 **Introductory Remarks**
- 14:00 **P. Lanfranchi, Y. Freudenreich, C. Reiser, J. L. Piazza, J. Perrot:** Deriving Fracture Attributes from Seismic Anisotropy: A Case Study
- 14:25 **N. K. Verma, F. Al-Medhadi, D. Natrajan, R. Al-Moraikhi, C. R. C. Smart, E. Al-Mayyas:** Testing Static Concepts Used for Discrete Fracture Network Modeling of Najma-Sargelu Reservoir of West Kuwait
- 14:50 **S. Williams-Stroud, S. Griest, S. Meddaugh:** Building a Discrete Feature Network Model of Fractures Within the Reservoir Property Model: Humma Field, PNZ, Kuwait and Saudi Arabia
- 15:15 **H. Wu, M. D. Al-Ajmi, A. Corley, N. Banik, N. H. Al-Ajmi:** Uncertainty Analysis in Geomechanics Modeling for Fracture Prediction

Fractured Carbonates

Room 4

Co-Chairs: M. Al-Ajmi, and J. L. Jackson

- 16:25 **Introductory Remarks**
- 16:30 **C. Hilgers, D. Kirschner, S. Nollet, J. P. Breton, J. L. Urai:** Fracture Sealing in Sedimentary Rocks: Micro- to Basin-Scale Processes
- 16:55 **C. Toscano, R. Atena, G. Bellentani, F. Capanera, A. Francesconi:** Fracture Modeling Methodology Based on Continuity Cube Data
- 17:20 **A. H. Anis:** Integrating Core Data and Image Logs: The Critical Steps in Modeling a Fractured Carbonate Reservoir
- 17:45 **P. Richard, K. Rawnsley, P. Swaby, C. Richard:** Integrated Fracture Characterization and Modeling in Carbonate Fields Using Novel Modeling Software and Sandbox Models

Reservoir Quality Prediction and Formation Evaluation

Room 5

Co-Chairs: K. Hughes, and S. Crary

- 13:55 **Introductory Remarks**
- 14:00 **S. N. Ehrenberg:** Porosity Destruction in Carbonate Platforms
- 14:25 **M. Van Steenwinkel, J. Mattner:** Intra-Salt Carbonate Stringers: Where's the Reservoir?
- 14:50 **S. Al-Arifi, D. Heliot, D. Allen, J. Li:** Porosity Partitioning for Permeability and Texture Analysis in Thamama and Shuaiba Formations
- 15:15 **M. Haggag, R. Stanley:** The Sensitivity of Water Saturation Calculation and Modeling to the Uncertainties of the Petrophysical Inputs
- 15:40 **Break**
- 16:30 **M. A. Al-Awadi, M. M. Qidwai, H. Wu, O. Kamal, H. C. Huang:** From 1-D to 3-D: New Views and Applications in Formation Evaluation
- 16:55 **N. H. Gomaa, M. Okuyiga, S. Azer, M. Herron, R. Ramamoorthy, P. Tilke, D. F. Allen:** Case History of Automated Evaluation of Mineralogy and Porosity in Complex Carbonates
- 17:20 **O. M. Al Ameri, S. Al Marzouqi, M. Hamdi*, S. Bellah, B. Sirum, M. Bazara, R. Griffiths:** Overcoming Structural Uncertainties in a Reef-Developed Thin Oil Reservoir in the Middle East
- 17:45 **Y. M. Al-Shobaili, M. Hadhrami, M. Mudhhi, D. Qudahy, Sr., S. Aqeel, Sr., A. Shehab, Sr., E. Srdar, Sr., S. Douglas, Sr., O. Babayeju, M. Mashhadi, Sr., P. But, Sr., H. Qahtani, Sr.:** Saudi Aramco Implements New LWD Technology for Well Placement in Complex Clastic and Carbonate Reservoirs

Data and Information Management for E&P

Room 6

Co-Chairs: S. Ramamurthy, and A. A. Al-Fares

- 13:55 **Introductory Remarks**
- 14:00 **S. H. Harthy, J. Schreurs, A. Rovira:** Visualizing and Presenting the Subsurface Data in ArcGIS
- 14:25 **W. M. A. Younis, W. A. Al-Braiki*:** Geological Data Integrity and Quality Control for Correct Decision Making
- 14:50 **I. Brown, W. Mitchell:** Intelligent Integrated Operations Management
- 15:15 **R. Cerri, G. Capone, C. Carugo, A. Riva, M. Riva, F. Zausa:** New Drilling Technologies and Their Implications on the Quality of Well Data for Geological and Geochemical Interpretation: Problems and Solutions
- 15:40 **Break**
- 16:30 **G. S. Adcock, T. Al Faraj*:** Exploration Data Management at Saudi Aramco: Making Data Pay
- 16:55 **B. Vrielynck, M. Bochud, E. Barrier, M. F. Brunet, F. Bergerat, J. F. Brouillet, I. Morgant, D. Pasquier:** The Mebe GIS Database: A Tool for Middle East Geology

- 17:20 **S. Abri, P. Matheny***: Meeting Seismic Data Quality Expectations: New Dimensions in Seismic Survey Design
- 17:45 **K. A. Berteussen**: Estimating the Value of Seismic Data Before a Survey is Shot: Special Reference to 4-D

Group 2 Posters – Tuesday 28 March 14:00 – Wednesday 29 March 13:30

Regional Geology of the Middle East

Exhibition Hall 2

Co-Chairs: J. M. Scheurs, and J. C. Sempere

- **S. Kolonic**: Anatomy of a World-Class Source Rock: Distribution and Depositional Model of Silurian Organic-Rich Shales in Jordan and Implications for Hydrocarbon Potential
- **M. Hussain, O. Abdullatif**: Stratigraphic Relationship of the Exposed Wajid, Saq and Qasim Formations in Western Saudi Arabia: A Geochemical and Statistical Approach
- **M. Y. Ali, J. Leanderson**: Integrated Geological and Geophysical Methods to Map Subsurface Contact between Ultramafic and Carbonate Sequences in Al Wadiyein, Buraimi, Oman
- **M. Balini, G. Pavia, M. Gaetani, A. Nicora, M. Giorgioni, D. Moalli**: The Triassic Succession of Socotra Island, Yemen: Preliminary Results
- **G. W. Hughes, M. Al-Khalid, O. Varol, D. Bacchus**: Palaeoenvironments of the Upper Hanifa in Saudi Arabia
- **D. R. Gray, R. T. Gregory**: Revised Structure of the Oman Mountains Based on New Structural Mapping and Geophysical Data
- **A. Al-Laboun**: The Influence of the Caledonian Orogeny in Central Arabia
- **D. R. Gray, R. T. Gregory, G. Heinson, S. Thiel**: Magnetotelluric (MT) Profiling of Oman Deep Crustal Structure as a Test for Geodynamic Models

Interplay of Basin Tectonics, Structural Style and Sedimentation

Exhibition Hall 2

Co-Chairs: A. Siddiqi, E. Blanc, and M. Khalil

- **M. A. Al-Balushi, O. S. Al-Ja'aidi**: Aspects of Petroleum Geology of Block 34, Al-Jazir, Southeast Oman
- **S. Al-Anboori, B. Al-Sariri, M. Al-Balushi**: Play Concept of Offshore Salalah, Oman
- **S. Al-Anboori, M. Al-Balushi, B. Al-Sariri**: Exploration Prospectivity in the Sharkiyah Region, Southeast of Block 42

Advances in Biostratigraphy, Paleontology, and Palynology

Exhibition Hall 2

Chair: G. Hughes

- **M. A. Miller, J. Zalasiewicz, M. Williams, A. Page, E. Blackett:** An Early Silurian (Llandovery) Graptolite Succession from Central Saudi Arabia: First Documented Record of Telychian Faunas from the Arabian Peninsula
- **L. Angiolini, M. H. Stephenson:** Palaeobiogeography of the Alborz Mountains (North Iran) in the Early Permian: Evidence from Brachiopods and Palynomorphs
- **M. Balini, G. Pavia:** Anisian Ammonoids from Socotra Island, Yemen
- **G. W. Hughes, M. A. Miller, J. B. Riding, O. Varol:** Multidisciplinary Biofacies Analysis of the Khafji and Safaniya Members of the Wasia Formation (Cretaceous) of Saudi Arabia
- **G. W. Hughes:** Biostratigraphy, Biofacies, Palaeoenvironments, Lithostratigraphy and Reservoir Implications for the Shaqra Group (Jurassic) of Saudi Arabia

Fractured Reservoirs

Exhibition Hall 2

Co-Chairs: M. Alfaraj, and O. Schoenicke

- **F. Babaia, F. Chegrouche:** A Multi-Azimuth VSP Experiment for Fracture Orientation Detection in HMD Field, Algeria
- **A. Al-Shuhail:** Fracture Porosity Inversion from P-Wave AVOA Data Along 2-D Seismic Lines
- **M. Kurovets, O. V. Sheremeta, P. S. Chepusenko:** Oil- and Gas-Reservoir Rocks of the Vissean Reef Structures in the Sribne Deep of the Dnieper-Donets Depression
- **R. Husain, H. Wu, A. A. Sajer, K. Hoi Lau, N. Al-Zabout, R. Abu Taleb:** Role of Fractures in Enhancing Quality of Triassic Gas Reservoirs in Western Kuwait
- **A. Mann, D. Peacock:** Tectonic Controls of Fracturing in the Gulf Region
- **M. O. Bockel-Rebelle, M. G. Vesseron, F. Jeanjean, S. A. Khoori, M. J. M. Rebelle:** Polygonal Faults/Fractures Pattern within Abu Dhabi Onshore Lower Cretaceous Platform Carbonates
- **N. A. Qasim, IV, H. K. Zubari, A. E. Abdulwahab, A. E. Al-Muftah:** The Role of Seismic Coherence Attributes in Mapping the Fracture Network and Improving the Productivity from Thin, Tight and Fractured Reservoir

Geochemistry, Source Rocks and Geochemical Techniques

Exhibition Hall 2

Co-Chairs: R. B. Wheeler, and A. A. Abdullah

- **D. Dessort, G. Caillet, M. Lescanne, E. Insalaco, F. Montel:** Geochemical Characterization and Interpretation of Khuff Reservoir Fluids, North Dome
- **H. Alimi, D. M. Jarvie:** Geochemical Characteristics of Crude Oils Studied from the Lower Fars Reservoir in the Ratqa Field, Northern Kuwait
- **J. Schoenherr, J. L. Urai, R. Littke, P. A. Kukla, M. Newall, N. Al-Abry, Z. Rawahi:** Petrography and Geochemistry of Solid Bitumen in the Intra-Salt Carbonate Stringers of the South Oman Salt Basin
- **Z. Shariatinia:** The Depositional Environment of Neogene Great Kavir Evaporite Deposits, Central Iran
- **S. Kolonic:** Black Shale Deposition on the Northwest African Shelf During the Cenomanian/Turonian Oceanic Anoxic Event: Climate Coupling and Global Organic Carbon Burial
- **B. Alizadeh, F. Tezheh, M. H. Adabi:** Oil-Oil Correlation of Asmari and Bangestan Reservoirs in Giant Marun Oilfield, Southwest Iran

Geophysical Techniques on Land

Exhibition Hall 2

Co-Chairs: C. Liner, B. Biondi, and S. A. Al-Maghlouth

- **W. Ma, X. Liu, M. Duan, X. Chen:** Optimum Design of 3-D Geometry for Minimizing Acquisition Footprint
- **A. Al-Hokail:** Investigation of the Behavior of Surface Noise within Seismic Arrays of Variable Geophone Density
- **M. S. Nahhas, O. Abdel-Aal:** Limitations of 3-D Seismic to Meet Its Objectives: A Case History
- **R. Alá'i, E. Verschuur:** Removal of Surface and Internal Multiples from Land Data: Experience from North Africa Data
- **E. Pajot, D. Dhont, J. P. Xavier:** Extension Versus Compression in the Lengguru Fold and Thrust Belt (Papua New Guinea): From JERS SAR Imagery Mapping to 3-D Geologic Modeling
- **C. Carugo, C. Peduzzi, L. Ferrario:** Unconventional Ways to Support Formation Evaluation in Fractured Reservoir Using Mudlogging Data
- **S. Al-Dossary, L. Hu:** Random Noise Removal of Seismic Attribute Data Via Complex-Valued Wavelets
- **S. Tarkhan, IV, H. Tahani:** Identification of Subsurface Structures on Sarajeh Gas Field with 3-D Seismic Survey Designing for Gas Storage and IOR Purposes

Integrated Geophysical Studies

Exhibition Hall 2

Co-Chairs: P. Lanfranchi, and A. Al-Shuhail

- **K. F. Yuan:** Prediction and the Reality: Geological Modeling of a Fluvial Reservoir System, L107 Block, Jizhong Sub-Basin, North China
- **A. Al-Fares, M. I. Syed*, S. K. Tanoli:** Exploration Risk Reduction by Accurate Delineation of Channel Sand Bodies of Lower Zubair Formation in Northwest Raudhtain Area of Kuwait Using Post-Stack Seismic Attributes
- **M. Buia, P. Marchetti, A. I. Marini, R. Zambonini, F. Owaina:** Improving Reservoir Characterization Using 3-D-CRS Stack Method
- **R. K. Pathak, Y. M. Al-Ansari:** Delineation of Ac Reservoir Sand from Multi-Attribute Analysis of Well and Seismic Data: A Case Study from Awali Field, Bahrain
- **Vosoughi-Niri:** Integrated Geoelectrical Methods in Oil Exploration

Reservoir Characterization

Exhibition Hall 2

Co-Chairs: S. Ahmed, and S. Meddaugh

- **N. Khan, T. M. Shehab*, N. A. Al-Mayyas, M. F. Al-Ajmi, E. H. Al-Anzi, Sr.:** The Benefits of Updates on Geological and Petrophysical Understanding of Lower Burgan Reservoir in Sabiriyah Field, North Kuwait
- **M. Asadollahi, M. Keramati, A. M. Bagheri, M. Haghighi:** Investigation of the Effect of Cementation Factor on Original Oil in Place in an Iranian Carbonate Reservoir
- **Al-Mansoori, J. C. Mitchell, C. J. Strohmenger, I. Al-Ali, C. Liu:** Sub-Regional High-Resolution Sequence Stratigraphy and Reservoir Characterization of Upper Thamama (Lower Cretaceous) Reservoirs of Onshore and Offshore Abu Dhabi, United Arab Emirates
- **N. Abdel Hameed, K. B. Trivedi:** Effects of Reservoir Properties Upon the Reservoir Models: A Case Study from Blocks 1, 2 and 4, Muglad Basin, Sudan
- **V. Ibrahimov:** 3-D Stochastic Models for Reservoir Characterization (on the Example of Bahar Field, Azerbaijan)
- **M. Bliefnick, P. V. Grech, P. Hogarty:** Yibal Field, Oman: An Integrated Approach to Reservoir Characterization
- **A. Aminzadeh:** Reservoir Characterization of Sarajeh Field: Application in Underground Gas Storage, Qum, Iran
- **A. Badawy, A. R. Darwish, A. Hathat, S. Al Suwaidi:** Integrated Static and Dynamic Modeling in One of the Major Gas Reservoirs of Onshore Abu Dhabi
- **M. Antonelli, C. D'Agosto, F. Miranda:** Integrated Crosswell Seismic – An Advanced Technology to Improve Reservoir Description: Case Histories
- **Hilgers, Z. Schleder, J. L. Urai:** Microstructures in Halite Veins and Their Implication on the Bulk Permeability of Rock

Sequence Stratigraphy: Applications from Outcrop to Reservoir

Exhibition Hall 2

Co-Chairs: H. Droste, and C. R. Beeman

- **M. Simmons, D. Casey, R. Davies, S. Holmes, F. Schulze, P. Sharland, O. Sutcliffe:** Sequence Chronostratigraphy: Issues and Examples
- **A. K. Norton, M. L. Hulver:** Probable Unayzah-A (Early-Middle Permian) Eolian Outcrops, Southwestern Saudi Arabia
- **R. K. Al Dukhayil, A. A. Al Tawil:** Reservoir Architecture of the Triassic Khartam Carbonate Sequence, Khuff Outcrop Analogue in Al-Qassim, Central Saudi Arabia
- **C. Lehmann, J. Goff, B. W. Jones, A. Anastas:** A Detailed Jurassic Sequence Stratigraphic Framework for the Formation of Dolomites Along Southeastern Gotnia Shelf Margin
- **W. R. Wright, C. J. Strohmenger, S. Ali, A. El-Agrab, R. M. Rosell, III:** Strontium (Sr) Isotope Stratigraphy of the Upper Jurassic Arab and Asab Formations, United Arab Emirates
- **H. Mohseni, S. Khodabakhsh, R. Mohammadi, A. Yarmohammadi, G. Sadeqqi:** Sequence Stratigraphy of the Asmari Formation in the Zagros Basin, Southwest Iran: Implication for Reservoir Porosity Prediction
- **K. B. Trivedi, S. E. Islam, R. Elamahi:** Sequence Stratigraphy, a Predictive Tool to Understand Interplay of Basin Tectonics and Sedimentation: A Case Study from Muglad Basin, Sudan

Wednesday 29 March Morning Oral

Zagros Foredeep and Fold Belt: Tectonic Controls on Reservoir and Trap Formation

Room 1

Co-Chairs: W. Voggenreiter, and J. Mattner

- 07:55 **Introductory Remarks**
- 08:00 **C. H. Henke, J. Schober, U. Weber, F. Gholami, H. Tabatabai:** Joint Study, High Central Zagros – Part 1: A Challenge for Geophysical Integration
- 08:25 **A. Bosold, W. Schwarzahns, A. Julapour, A. R. Ashrafzadeh, S. M. Ehsani (presented by J. Schober):** Joint Study, High Central Zagros – Part 2: Structural Geology - New Insights
- 08:50 **E. J. P. Blanc, M. B. Allen, G. H. Sherwani, S. F. Fouad, V. K. Sissakian, C. J. Wibberley, J. Jackson, H. Hassani:** Role of Precursor Faults in the Growth of Anticlinal Reservoirs in the Middle East
- 09:15 **J. M. Daniel, M. Azzizadeh, F. Ahmadhadi:** Interplay between Folding, Fracturing and Diagenesis in the Zagros Foredeep
- 09:40 **Break**
- 10:30 **P. Leturmy, M. Molinaro, D. Frizon de Lamotte, J. C. Guezou:** Geometry and Chronology of Basement Faulting in the Fars Arc: A View from Structural and Morphological Analysis

- 10:55 **V. Abreu, N. Muratov, R. Karpuz, C. Taberner, M. Rejas, S. Scouten, D. Hunt, D. Morsalnezhad, T. Samuelsberg, A. Lonoy, J. Vergés:** Fracture- Controlled Hydrothermal Dolomitization: An Outcrop Case Study from the Zagros Mountains, Iran
- 11:20 **C. Liu, M. Steinhauff, J. Mitchell:** Evolution of the Mesopotamian Basin, Iraq: Campanian to Neogene

Seismic Inversion and Attributes

Room 2

Co-Chairs: E. Verschuur, M. Mazrui, and K. Al-Mashouq

- 07:55 **Introductory Remarks**
- 08:00 **R. Latimer:** Uses, Abuses, and Examples of Seismic-Derived Acoustic Impedance Data: What Does the Interpreter Need to Know?
- 08:25 **R. R. Terres, R. Z. Al-Jamali, A. Naamani, A. Helmi:** Perfect Pitch: The Use of Tuning in Reservoir Characterization in the Harweel Cluster, Oman
- 08:50 **T. H. Keho:** Impact of the Initial Model on Acoustic Impedance Inversion
- 09:15 **F. A. Neves, H. L. Triebwasser:** Multi-Attribute Seismic Volume Facies Classification for Predicting Fractures in Carbonate Reservoirs
- 09:40 **Break**
- 10:30 **M. K. Broadhead:** Seismic Noise Estimation and Error Propagation Applied to Post-Stack Seismic Inversion
- 10:55 **B. P. Wallick, H. Triebwasser, G. Lecante:** Use of Interbed Multiple Prediction in Acoustic Impedance Modeling: Example from an Eolian Dune Reservoir, Saudi Arabia
- 11:20 **H. Najwani, Y. Al-Aufy:** When Should We Use Seismic Inversion Results for Porosity Prediction?: A Case Study from Dhulaima and Lekhwair-East Fields
- 11:45 **E. Verschuur:** Removing Multiples or Using Multiples: New Challenges for Land Data

DHI/AVO Attribute Analysis: Technological Breakthroughs and Learnings

Room 3

Co-Chairs: N. C. Allegar, and M. Lansley

- 07:55 **Introductory Remarks**
- 08:00 **H. Trappe, J. Pruessmann:** Improved AVO Analysis Based on the CRS Method
- 08:25 **M. Mazrui, R. McClenaghan, N. Mahrooqi, S. Salmi:** Haban Gas Field: Oman's First Amplitude-Supported Play
- 08:50 **M. Millwood Hargrave:** Fast-Track Reservoir Characterization of a Subtle Paleocene Deep Marine Turbidite Field Using a Rock Physics- and Seismic Modeling-Led Workflow
- 09:15 **M. I. Al-Marhoon, Y. X. Luo:** Seismic Frequencies: A Robust Interpretation Tool

Applied Technology Case Studies

Room 3

Co-Chairs: *F. Ortigosa, and J. Sieverding*

- 10:25 **Introductory Remarks**
- 10:30 **C. G. Macrides, F. A. Neves, J. S. Eberle:** Joint Analysis of PP and PS Data from a 3-D-4-C OBC Seismic Survey Over a Clastic Reservoir in the Arabian Gulf
- 10:55 **J. W. Tucker:** Temperature Structure of the Jafurah Low, Eastern Saudi Arabia: Enigma or Opportunity?
- 11:20 **M. G. Kumpas, S. R. Narhari, H. Al-Owihan, A. Corley:** Automated Fault Plane and Polygon Generation in a Large, Mixed 2-D and 3-D Seismic Data Set
- 11:45 **C. J. Schenk, T. A. Cook, R. M. Pollastro, T. S. Ahlbrandt:** Production of Natural Gas from Unconventional Low-Permeability Sandstone and Shale Reservoirs: Analogs from the United States

Sequence Stratigraphy: Applications from Outcrop to Reservoir

Room 4

Co-Chairs: *H. Droste, and C. R. Beeman*

- 07:55 **Introductory Remarks**
- 08:00 **M. Simmons, D. Casey, R. Davies, S. Holmes, F. Schulze, P. Sharland, O. Sutcliffe:** Arabian Plate Sequence Stratigraphy: Potential Consequences for Global Chronostratigraphy
- 08:25 **J. Melvin, O. Sutcliffe, T. Ferebee:** Origin and Sedimentary Fill of an Upper Ordovician (Ashgillian) Glacial Paleovalley Near Tabuk, Northwest Saudi Arabia
- 08:50 **F. Van Buchem, T. Allen, F. Gaumet, Z. Karimi, G. Laursen, M. Lotfpour, P. Masse, A. Moallemi, A. Monibi, H. Motiei, A. R. Tahmasbi, V. Vedrenne, B. Vincent:** Evolution of the Oligocene-Early Miocene Mixed Sedimentary System in the Dezful Embayment (Asmari and Pabdeh Formations, Southwest Iran)
- 09:15 **B. Vincent, T. Allen, F. Gaumet, Z. Karimi, G. Laursen, M. Lotfpour, P. Masse, A. Moallemi, A. Monibi, A. R. Tahmasbi, F. S. Van Buchem, V. Vedrenne:** Quantitative Stratigraphy in the Oligocene-Early Miocene Carbonate System in the Dezful Embayment (Southwest Iran) – an Integrated Chemostratigraphic, Biostratigraphic and Sequence Stratigraphic Analysis

Advances in Biostratigraphy, Paleontology, and Palynology

Room 4

Chair: G. Hughes

- 10:25 **Introductory Remarks**
- 10:30 **M. H. Stephenson, L. Angiolini, F. D. P. Darbyshire, M. J. Leng, F. Berra, G. Gambacorta, F. Jadoul, A. Nicora, Y. Le Nindre, D. Vaslet:** Strontium, Oxygen and Carbon Isotopes to Date and Investigate Permian Events in Arabia
- 10:55 **L. Angiolini, M. H. Stephenson, E. Y. Leven:** Correlation of the Lower Permian Surface Saiwan Formation and Subsurface Haushi Limestone, Central Oman
- 11:20 **S. Packer, G. Forbes:** Biostratigraphic and Sedimentological Modeling of the Upper Shuaiba Formation in North Oman: The Key to Effective Correlation
- 11:45 **M. El-Sabrouty:** Pollen Grains Record from the Early Miocene of the Northern Red Sea

Diagenetic Controls on Reservoir Performance

Room 5

Co-Chairs: D. L. Cantrell, and J. Al-Humoud

- 07:55 **Introductory Remarks**
- 08:00 **G. R. Davies, L. Smith:** Structurally Controlled Hydrothermal Dolomite Reservoirs: Characteristics and Rock Fabrics
- 08:25 **K. Al-Ramadan, S. Morad, A. K. Norton, M. L. Hulver:** Linking Diagenesis and Porosity Preservation to Sequence Stratigraphy of Reservoir Sandstones in the Jauf Formation (Lower Devonian), Eastern Saudi Arabia
- 08:50 **M. R. Naaeeji:** Diagenetic Studies of Devonian Sediments in the Zagros Basin, Southern Iran
- 09:15 **R. Labourdette, E. Insalaco, A. Meyer, M. Sudrie, C. Javaux, F. Walgenwitz, J. Camy-Peyret, O. P. Hansen, C. Fraise:** Constraining 3-D Geological Models by Their Diagenetic Overprint: An Example from the Khuff Formation

Outcrop Analogs for Reservoir Modeling

Room 5

Co-Chairs: T. Aigner, and C.J. Heine

- 10:25 **Introductory Remarks**
- 10:30 **O. Weidlich:** Potential and Pitfalls of Outcrop Analogue Studies: A Comparative Analysis of Permian Carbonates from the Arabian Peninsula
- 10:55 **C. J. Heine, J. Melvin:** Modern and Ancient Analogs Provide Geological Control and Scale for Reservoir Layering and Property Distribution in a 'Wet' Eolian Depositional System, Saudi Arabia
- 11:20 **O. M. Abdullatif, M. H. Makkawi, F. Al-Khalifah:** Outcrop Analogue for a Paleozoic Shallow Marine Sandstone Reservoir: Geological and Geostatistical Models of Quwarah Member, Saudi Arabia

Reservoir Modeling and Case History Studies

Room 6

Co-Chairs: A. M. Apanel, and J. H. Anderson

- 07:55 **Introductory Remarks**
- 08:00 **I. Billat, O. P. Hansen, E. Cassou, E. Insalaco, M. C. Devilliers, C. Fraisse, C. Legorjus:**
A Full-Field Model of the Khuff Reservoir Over the North Dome Field
- 08:25 **O. Al Ameri, S. Haidar, S. Bellah, M. S. AbouSayed:** Static and Dynamic Modeling of an
Offshore Field, United Arab Emirates
- 08:50 **L. Ramos, S. Al-Maskary, G. Bloch, A. Kaya:** Constraining 3-D Modeling of Structure, Porosity
and Permeability Using a Combination of Geology-Controlled Deterministic and Stochastic
Techniques to Minimize Uncertainty: Example from a Giant Carbonate Reservoir, Onshore Abu
Dhabi, United Arab Emirates
- 09:15 **W. S. Meddaugh, S. Griest, O. Al-Shaarawy, K. Sukhdarshan, J. Garrity, G. Pages,
T. Lein-Mathisen:** Humma Marrat Reservoir, Partitioned Neutral Zone (PNZ) Case Study –
Part 1: Reservoir Geology and Stratigraphy
- 09:40 **Break**
- 10:30 **W. S. Meddaugh, W. W. Todd, S. Griest, C. Bobien, D. Barge:** Humma Marrat Reservoir,
Partitioned Neutral Zone (PNZ) Case Study – Part 2: Reservoir Evaluation and Optimization
- 10:55 **W. S. Meddaugh, S. Griest:** Humma Marrat Reservoir, Partitioned Neutral Zone (PNZ) Case
Study – Part 3: Historical Look-Back at Volumetric Uncertainty During Delineation and
Development
- 11:20 **A. I. Alkalali:** Hydrodynamic Petroleum Entrapment Potential in the Arabian Platform
- 11:45 **G. G. Shanor:** High Resolution Stochastic Modeling Conditioned to Seismic Rock Property
Inversions: Practical Workflows for Middle East Reservoirs

Wednesday 29 March Afternoon Oral

Plenary Session – Technology Advances

Rooms 1 and 2 – 14:00-18:00 hrs

Co-Chairs: S. Al-Hajri, Ibrahim A. Al-Ghamdi, and P.O. Yilmaz

This special event is a high-level general session designed to review current and future trends in the development of new technologies to meet increasing global oil and gas demand. Speakers will address technology development and applications that can lead to new discoveries, reduce costs in existing fields or recover unconventional resources. The invitees include the following: Saudi Aramco, KOC (Khalid Al-Sumaiti, Executive Assistant Managing Director, Kuwait Oil Company), ExxonMobil (Kurt Rudolph, Chief Geoscientist), Chevron, Total, Shell, BP, Computer Company, Service Company (TBA) and Academia.

Geophysical Techniques on Land II

Room 3

Co-Chairs: C. Liner, B. Biondi, and S. A. Al-Maghlouth

- 13:55 **Introductory Remarks**
- 14:00 **P. Van Baaren, A. Smart, J. Garrity:** The “Hands-Off” Approach to Seismic for the 21st Century: A Case Study in the Use of Very High Channel Recording Systems
- 14:25 **H. Granser, O. Refik:** Reflection Tomography for Validation of Subtle Structures: A Case History from Southern Tunisia
- 14:50 **P. I. Pecholcs:** Uncorrelated Data-Driven Vibroseis Deconvolution
- 15:15 **A. Al Dulaijan, P. Van Mastrigt, F. Al-Somali, K. Saadaoui, I. Morris:** New Technology Applications in the Rub Al-Khali Desert
- 15:40 **Break**
- 16:30 **R. M. Lansley:** Quality Control in Today’s Recording Systems
- 16:55 **P. Matheny, S. Mahrooqi:** Good ‘Seismic’ Vibrations in Fahud
- 17:20 **A. A. Al-Mubarak, R. E. Ley, II, R. Bridle, H. Hussein, W. L. Weibel:** Qatif 3-D Survey: A Case History of a Large Transition Zone Survey
- 17:45 **Y. Luo, Q. Liu, Y. Wang, M. N. Alfaraj:** Expanding Imaging Areas Using Transmitted Waves and Multiples in VSP Data

Reservoir Monitoring and Management

Room 4

Co-Chairs: M. A. Emadi, and K. Al-Anzi

- 13:55 **Introductory Remarks**
- 14:00 **D. O. A. Al-Shaarawy, Sr, M. Rajab, J. Garrity, D. Barge, I. Al-Hakam, M. Shahid, Sr.:** Integrated Approach of a Successful Geosteering Project Targeting a Low Permeability Reservoir in the Partitioned Neutral Zone between Kuwait and Saudi Arabia
- 14:25 **F. M. Al-Thawad, R. H. Al-Obaid, H. Gill, F. A. Al-Ajmi, S. Lyngra, N. Al-Dawood:** Characterizing and Locating Conductive Faults/Fractures Via Pressure Data
- 14:50 **S. Strebelle, R. Preece:** Integrating Information from Multiple Sources to Generate Geologically Realistic Models: The Multiple-Point Statistics/Facies Distribution Modeling Workflow
- 15:15 **B. Al-Busafi, Q. Fisher, S. Harris:** Faults Representation Impact on Multiphase Fluid Flow in Production Simulation Models
- 15:40 **Break**
- 16:30 **M. Zeidouni, S. A. Alavian:** Miscibility Investigation of Bangestan Gas in Asmari Reservoir Oil of a South Western Iranian Field
- 16:55 **D. L. Petrat, D. A. Al-Enezi:** Monitoring Oil Field-Induced Subsidence Using Satellite-Based Radarinterferometry
- 17:20 **A. Ferretti, S. Cespa, F. Novali, F. Rocca, C. Prati:** PSInSAR: Using Satellite Radar Data to Measure Surface Deformation Remotely
- 17:45 **S. Dasgupta:** Monitoring Reservoir Fluids Using Microearthquake Technology in a Middle East Carbonate Oil Field

Siliciclastic Settings and Depositional Environments

Room 5

Co-Chairs: G. Al-Sahlan, and R. C. Buckley

- 13:55 **Introductory Remarks**
- 14:00 **M. R. Naaeeji:** Depositional Environment of Devonian Sediments in the Zagros Basin, Southern Iran, and Comparison to the Devonian Sediment of Arabian Plate
- 14:25 **S. K. Tanoli, R. Husain, A. A. Sajer, K. H. Lau, N. Al-Zabout, M. Al-Mukhaizeem:** Unayzah Formation in Subsurface Kuwait: Implications for Deep Play Exploration
- 14:50 **I. T. Abdulkadir, O. M. Abdullatif, A. Sahin:** Depositional Environment and Reservoir Characteristics of Lower and Upper Dibsiyah Member (Wajid Sandstone), Southwest Saudi Arabia
- 15:15 **J. L. Rubino, C. J. Blanpied:** Precambrian Succession of South Oman: New Insights
- 15:40 **Break**
- 16:30 **S. D. Harker:** Sharyoof's Shifting Shorelines

- 16:55 **A. A. Badi, O. M. Abdullatif, O. B. Ali, A. G. Farwa:** Sedimentology and Reservoir Characteristics of Yabus and Samaa Formations (Tertiary), Agordeed Belt, Adar Yale Field, Melut Rift Basin, Sudan
- 17:20 **G. A. Forbes, N. McNaughton:** A Method for Determining the Age of Deposition of Sediments Using SHRIMP: A Technology Trial on the Clastic Sequences from the Haima and Huqf Supergroups of Oman
- 17:45 **V. Vedrenne, D. Baghbani, F. Gaumet*, D. Granjeon, F. Keyvani, S. Lopez, D. Morsalnejad, F. Van Buchem, B. Vincent, M. Yavari:** Evolution of the Cretaceous Sedimentation Patterns in the Zagros, Southwest Iran

Regional Geology of the Middle East

Room 6

Co-Chairs: J. M. Scheurs, and J. C. Sempere

- 13:55 **Introductory Remarks**
- 14:00 **E. Barrier, B. Vrielynck, M. F. Brunet, J. F. Brouillet, M. Gaetani:** The MEBE Tectonic Maps: Evolution of the Middle East Since Mesozoic
- 14:25 **R. T. Gregory, D. R. Gray:** Geodynamics of the Northeast Arabian Plate Revisited
- 14:50 **A. Corley, M. Kumpas, N. S. Rao, S. K. Singh, N. H. Al-Ajmi:** Episodic Growth History of On-shore Kuwait
- 15:15 **J. Amthor, A. Cozzi:** From Ice to Salt: Stratigraphic Synopsis of the Huqf Supergroup of Oman
- 15:40 **Break**
- 16:30 **C. Beeman, G. J. Grabowski, C. Liu, N. Muratov, W. Maze, V. Abreu:** Carbonate Margin Progradation and Clastic Basin Filling Sequences, Mesopotamian Basin
- 16:55 **D. A. Rodgers, T. C. Connally:** A Tale of Two Basins: Hercynian Structural Evolution of the Permian and Arabian Basins
- 17:20 **M. Bernecker:** Isolated Platform and Reef Growth in the Hawasina Ocean: The Late Triassic Jabal Kawr of Oman
- 17:45 **M. As-Saruri, A. Abdillah, R. Sorkhabi:** Mesozoic and Neogene Sedimentary Rift Basins of Yemen: Lithostratigraphic Correlation and Hydrocarbon Potential

Short Courses

'Applied NMR Petrophysics' (DGS and Saudi Aramco)

One-day course

Saturday 25 March

08.00 – 17.00 hrs

Instructor: Ridvan Akkurt, *Saudi Aramco*

Fee: US\$ 100

Who Should Attend?

Petrophysicist, log analysts, geologists, reservoir engineers, geoscientists and management who have used or plan to use NMR logs to solve their problems. The course is designed to serve the less experienced professionals

Overview

This course is designed to introduce basic NMR interpretation to those professionals who are less experienced and interested in applications rather than the theory

Summary

Basic NMR physics and petrophysics, wireline and LWD logging tools, and applications including shaly sand, carbonates, gas detection, viscosity, tar detection, flushed zone saturation.

After the seminar, you should:

- Be able to relate to basic NMR parameters such as T_1 and T_2 .
- Have a general understanding of fluid NMR properties
- Understand how bound water and permeability are estimated using NMR
- Be familiar with the strengths and weaknesses of different logging tools
- Be able to screen potential NMR applications
- Know enough to ask the right questions

'Modern Seismic Imaging Technology' (Saudi Aramco and EAGE)

One-day course

Saturday 25 March

08.00 – 17.00 hrs

Instructor: Dr. Etienne Robein, *Total*

Fee: US\$ 120 (€ 100)

Registration for EAGE's Short Courses only via EAGE website (www.eage.org).

Who Should Attend this Workshop?

Geoscientists who want to be aware of recent seismic imaging improvements and their related issues, and who need to know how they can impact both Exploration or Reservoir management projects.

Prerequisites

Basic understanding of seismic principles and applications in E&P.

Overview

Seismic imaging techniques evolved regularly over the years since their first usage in E&P business in the early 50's, in conjunction with improvements in seismic acquisition methods. However, a definite improvement in quality, accuracy and reliability of the seismic image was achieved recently with the generalization of "Pre-Stack Migrations" of compression and converted waves, in parallel with the acquisition in the field of denser, higher resolution, longer offsets, wider or multiple azimuth, ocean bottom cables or nodes data sets.

The course will review the main imaging methods currently available, with a simple exposition of their basic principles that will lead us to the expected

benefits, but also the intrinsic limitations and possible pitfalls of each technique. Relationship with data acquisition will be noted when relevant. Imaging-related issues that will be discussed from the interpreter's or processing supervisor's standpoint include: data conditioning (multiples; regularization); acquisition related artifacts or benefits (multiple azimuths; OBC; long offsets); velocity analysis and move-out information content (anisotropy; HDHR picking); resolution; amplitude reliability; turnaround time of projects; etc. Numerous real data examples will support our statements and recommendations.

We will conclude with some consideration on what further improvements are to be expected in the coming years.

Course objectives

- To inform geoscientists on what benefit in their Exploration and Field Development and Production daily work they can expect from recent developments in seismic imaging methods.
- To understand the basic principles of each method and their underlying assumptions.
- Consequently, to be able to select the best imaging method to address a specific problem, while being aware of possible method-related issues.
- To understand why imaging cannot anymore be decoupled from survey design on the one hand and interpretation on the other hand.

Summary

Course outline:

- Introduction – a short history of imaging technology
- Principles and respective benefits of Kirchhoff PreStack Time and PreStack Depth Migrations and of Wave-Equation PreStack Depth Migration
- Alternative methods: CRS stack; T-migration
- Issues in modern imaging: regularization; velocity analysis; anisotropy; amplitude preservation;

resolution; OBC; long offsets; converted waves; projects turnaround time; etc.

- Conclusions and recommendations; what is coming next

'Interpretation of Three-Dimensional Seismic Data' (DGS and Saudi Aramco)

Two-day course

Saturday 25 March – Sunday 26 March

08.00 – 17.00 hrs

Instructor: Alistair R. Brown, *Consulting Reservoir Geophysicist*

Fee: US\$ 100

Who Should Attend?

This course is for the geologist, geophysicists, engineers and management who want to have a proper understanding of seismic data, the thoughtful utilization of interpretation workstations, and the special interpretation techniques applicable to 3-D seismic data today.

Overview

This course emphasizes the proper understanding of seismic data, the thoughtful utilization of interpretation workstations, and the special interpretation techniques applicable to 3-D seismic data today. The balance between geophysics, geology and computer science is a prevailing theme. The course starts with a discussion of essential geophysical principles, and then continues through the major topics of structure, stratigraphy, and reservoir analysis. More geologic information is hidden in modern seismic data than many people realize. Resolution, color display, data phase and polarity, time slices, horizon slices, auto tracking, horizon attributes, natural pairing, tuning, horizon identification, and the meaning of seismic amplitude are all covered. Interpretation pitfalls are discussed at every stage of the course. Many case history examples will be shown.

Summary

The course will address these issues:

- Essential geophysical principles
- Major topics of structure, stratigraphy, and reservoir analysis
- Interpretation pitfalls
- Case history

'Climate Stratigraphic Analysis and Interpretation of Wireline Logs for Applications in Reservoir Characterization' (EAGE)

One-day course

Sunday 26 March

08.00 – 17.00 hrs

Instructor: Dr. Djin Nio, *ENRES International, and author of CycloLog*

Fee: EAGE Members US\$ 185 (€ 150)
Non EAGE Members US\$ 275 (€ 220)
This fee includes the official course book

Registration for EAGE's Short Courses only via EAGE website (www.eage.org).

Who Should Attend?

Geologists, geophysicists, reservoir and production engineers, and all team members involved in exploration of mature hydrocarbon areas and reservoir characterisation.

Prerequisites

Participants should be familiar with general geological principles and with some basic knowledge of wireline logs.

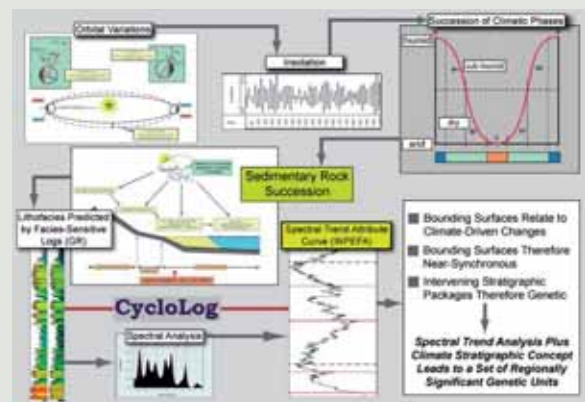
Course description

Reservoir models are critically dependent on a high-resolution stratigraphic framework. An alternative to conventional correlation techniques is to use the climate record stored in the sedimentary rock suc-

cession, which is routinely available through facies-sensitive wireline logs.

The science behind this approach is climate stratigraphy, which is a relatively new discipline combining advanced numerical processing of conventional log data with the theory of climate-driven patterns or cyclicity in sedimentary depositional systems.

Extraction of the climatic signal from facies-sensitive wireline logs allows the construction of a high-resolution near-synchronous stratigraphic framework for both reservoir and regional scale correlation. It is a highly cost-effective and universally applicable method deserving of wider appreciation and use.



Course Objective

- Understand climate stratigraphy concepts
- Understand the mathematical techniques used to extract the climate record from log data in a geologically meaningful form (the Spectral Trend Attribute curve)
- Learn how to interpret the Spectral Trend Attribute (INPEFA) curve and build a near-synchronous stratigraphic framework and recognize truncations, onlap and missing sections

- Understand climate-related (litho)-facies variability and its relation to reservoir quality

Course Topics

- Historical framework and the development of climate stratigraphy concepts
- The technique of transforming facies-sensitive log data into Spectral Trend Attribute (INPEFA) curves and interpretation of the log transforms
- Climate-controlled sedimentary facies development
- Building a stratigraphic framework of fluvial, transitional and deep-marine clastic reservoirs
- Building a stratigraphic framework of carbonate reservoirs

'Introduction to Near-Surface Static Corrections for Reflection Seismic' (DGS and Saudi Aramco)

Half-day course

Sunday 26 March

08.00 – 12.00 hrs

Instructors: Ralph Bridle, Mohammad Al-Homaili and, Robert Ley, *Saudi Aramco*

Fee: US\$ 100

Who Should Attend?

Designed for interested geoscience professionals and students, this course introduces an understanding of near surface anomalies in terms of time static corrections. The session will cover basic concepts of near-surface modeling, with

some exercises. Further presentations of real application of modeling as applied to 2D and 3D seismic data.

Overview

Static corrections are very important in focusing and positioning time structures. Participants in this half day course will receive basic understanding of methods to determine near-surface static corrections. In addition the knowledge that a single method to generate statics doesn't apply to all ground conditions. The recognition of near-surface anomalies and their solution leads to a well focused time structure

Summary

The course will address these issues:

2D

- Elevation corrections
- Simple time shift corrections
- Multiple layer modeling
- Refraction statics, (plus/minus)
- Transition zone

3D

- Development of integrated model
- Two layer model and merging of models.
- Case Histories:
 - Near-surface model for regional 2D lines
 - Evolution of a 3D near-surface model in an area of complex topography

Participants will be able to take home course notes and exercises.

Workshops



'The Permo-Carboniferous reservoirs of the Arabian Peninsula, from glaciers to dune sands' (DGS, Saudi Aramco and PDO)

One-day workshop

Sunday 26 March

08.00 – 17.00 hrs

Instructors: John Melvin, Christian J. Heine and Ronald A. Sprague, *Saudi Aramco*
Alan Heward, John Aitken, Dawood Al Qassabi, and Yacoub Al Hosni, *PDO*

Fee: US\$ 100

Who Should Attend?

This course is for the geologist, geophysicists, engineers and management who want to have a proper understanding of prolific Permo-Carboniferous reservoirs of the Arabian Plate.

Overview

The workshop is designed to introduce and promote discussion (compare and contrast) the Permo-Carboniferous deposits of Oman and Saudi Arabia. The workshop participants will be divided into four work-groups. The work-groups will rotate through each work-station containing core and a discussion leader. Each station will have 1-1/2 hours to present and discuss the core.

Station – 1 Unayzah 'B & C'

Station – 2 Unayzah 'A' and basal Khuff Clastics

Station – 3 Rahab and Al-Khlata

Station – 4 Gharif

07.00 – 08.00	Registration
08.00 – 08.30	Introduction
08.30 – 10.00	round-1
10.30 – 12.00	round-2
13:00 – 14.30	round-3
14.30 – 16.00	round-4
16.00 – 17.00	round-table discussion with discussion leaders

Coffee will be available during the work sessions

'Land Multiples: Suppression Techniques' (DGS and Saudi Aramco)

Half-day workshop

Sunday 26 March

08.00 – 15.00 hrs

Instructors: Gordon Lynch, Hashim Hussein, Robert Ley, Panos Kelamis, and Shelton Hubbell, *Saudi Aramco*

Fee: US\$ 100

Who Should Attend?

This forum is intended to bring together anyone with an active interest in sharing ideas in the area of Land Multiple Suppression.

Overview

There has been a plethora of outstanding work done in the area of Multiple Suppression over the years. The majority of this work has been focused in the marine environment where the bulk of the reserves are located. What about Land environments such as North Africa, the Middle East, and the Arabian Peninsula in particular? Multiple suppression in these areas present an even bigger challenge in light of the nature of their inherent near-surface variability. These situations routinely necessitate creative

and inventive solutions in the effort to prevail. These ideas need to be shared. It is hoped that seminars such as the Land Multiple Forum will help accomplish this exchange of information.

Session Summary

Half-Day Session

- Introduction
- Case studies and general discussion

Post Session

- Distribution of Data example

Keynote speaker

Panos Kelamis

SEG 75th Anniversary, Distinguished Lecturer

Field Trip

'Main Features Of The Geology Of Central and Western Syria'

Stratigraphic and Tectonic Characteristics of the Palmyrides, the Coastal Range and the Anti Lebanon "Unique Structures in Northern Arabian Plate"
Wednesday 22 to Sunday 26 March

Thursday 30 March to Monday 3 April

Organizer: Prof. A. Kh. Al Maleh, *Ex-Chairman of the General Establishment of Geology and Mineral Resources Prof. Of Sedimentary Petrology & Sedimentary Basin Analysis Geology Department, Damascus University*

Fee: US\$ 2300

Day 1

From Damascus to Palmyra

Main geologic sections of Southern Palmyrides anticlines: Rmah, Bsiri, Al Bardeh (2-millennia old Roman Dam), Hayyan. Through which the main

Upper Triassic to Lower Miocene lithostratigraphic units and their formations will be viewed. Acquaintance with surface exposures of important formations encountered in oil & gas wells in Syria and neighboring countries (mother, host and seal rocks), and correlating their regional changes and their surface and subsurface characteristics will be done.

Overnight in Palmyra.

Day 2

Sailing from the Arabian to the African Plate

Crossing the Ad Daww intermountain basin hence heading to Missyaf Segment of the Dead Sea Fault System, where a 2- millennia roman aqueduct is 13.6 m offset through three seismic events. Geology of the Upper Triassic to Lower Jurassic formations through geologic sections at the southern parts of the Coastal Range will be presented.

Overnight in Machta Helou Resort.

Day 3

Geology of the southern parts of the Coastal Range through selected geologic sections.

Tracing seismic and active tectonic scars in the 1-millennium old Krak de Chevalier which lies at the Dead Sea fault system. Main sedimentary formations and volcanics along the Syrian Mediterranean coast from Tartous till Lattakia will be viewed. Overnight in Lattakia.

Day 4

Lattakia, Baer-Bassit Ophiolit, Ghab Pull apart.

Main features of Baer-Bassit ophiolite in Syria (an important segment of the ophiolite arc which extends from Cyprus to Oman) will be visted. Leaving the African Plate to cross Ghab Pull apart which developed along the Dead Sea fault System hence ascending to the Arabian plate. Overnight in Hama.

Day 5

Hama, Homs, Qalamoon, Maalula, Zabadani Plain, Bloudan, Damascus.

Leaving Hama, the famous Norias' city on Orontes toward Homs depression to enjoy a panoramic view of Qalamoon Mountain Chain. Passing the road from Damascus to Bloudan through Barada River Valley, the main geologic and tectonic characteristics of the southern Palmyrides southernmost anticline (Qassyoun Mountain which overwhelms Damascus), and those of the Anti Lebanon will be viewed and contrasted. Serghaya Bloudan Fault paleoseismicity and current activity were evinced by new scientific researches conducted through international cooperation will be demonstrated. Overnight in Damascus

- Trip leaders are a professional scientific team of diversified specializations closely related to the trip visited structures and topics.

- Visa and international flight fares to/from Syria are to be arranged and shouldered by the participants.
- Maximum number of participants is: 20.
- Participation fees per person from/to Damascus airport: 2300 US\$.
- The way of payment will be decided, once trip participants confirm decisively their participation in the trip.
- Interested colleagues are kindly requested to confirm their registration for participation by email.
- Registration deadline: 10 February 2006.
- Correspondence emails: khmaleh@scs-net.org; ymradwan@scs-net.org; sypu@scs-net.org.

'The Spectacular Archaeology of Bahrain'

Sunday 26 March

Mid-morning to late afternoon

(exact times to be set)

Fee: US\$ 40

Bahrain enjoys an archaeological heritage that is part and parcel of the most ancient known civilizations of Mesopotamia. There is strong evidence to suggest that to ancient Sumerians (almost 5,000 years ago), the islands of Bahrain, lush green and bathed in flowing artesian fresh water springs in an otherwise arid region, were their equivalent of the "Garden of Eden". The northern part of the main island was apparently well populated since antiquity and the participants on this trip will be awe-struck at the ruins that can be seen. These ruins include layers of ancient cities and temples going back to 2,800 BC. Perhaps most astonishing of all will be the hundreds of square kilometers of ancient burial mounds that have sparked endless debate on whether the island in antiquity was holy enough to become the favored burial ground for those who could afford to have their bodies carried there for burial from hundreds of miles around. Beyond the

ancient, participants will be able to visit Hellenistic era remains, Islamic remains and a clear imprint from the brief occupation of the islands by the Portuguese in the early part of the 16th century.

The tour buses will pick up participants from their hotels in the morning at times yet to be set. A lunch box will be provided. Stops on the trip will include: Arad Fort (Portuguese/Omani), Shaikh Isa House (early 19th century palace), The National Museum of Bahrain, Bahrain Fort (Mesopotamian-era, late Islamic, Portuguese), Babar Temple (ancient Mesopotamian-era), Saar (an impressive exhumed Mesopotamian-era town complete with streets, homes, temple and graveyard), the Al Ali burial mound fields, and Rifa' Fort (Islamic). Other stops may be slipped in if time allows. Accompanying the tour will be qualified local area archaeologists.

Conference Guest Trip 'Enchanting Bahrain'

Tuesday 28 March

Late-morning to sunset (*exact times to be set*)

Fee: US\$ 40

Bahrain is a very enchanting island nation. It enjoys an archaeological heritage that is part and parcel of the most ancient known civilizations of Mesopotamia. Bahrain is at the crossroads of trade from Mesopotamia to India, East Africa, Oman and beyond. There is a very strong Persian influence and Arabian influence from the mainland only 26 kilometers away.

This trip is designed to show spouses and other accompanying family members a cross-section of the rich and spectacular fabric of what is now the Kingdom of Bahrain.

The tour buses will pick up participants from their hotels at mid-morning at an exact time yet to be set.

A lunch box will be provided. Stops on the trip will include: Arad Fort (Portuguese/Omani), Shaikh Isa House (early 19th century palace), old market of Muharraq, The spectacular Al Fateh mosque (modern), Bait Al Quran (a unique outstanding Islamic museum), Bahrain Fort (Mesopotamian-era, late Islamic, Portuguese), Babar Temple (ancient Mesopotamian-era), Saar (an impressive exhumed Mesopotamian-era town complete with streets, homes, temple and graveyard), the Al Ali pottery makers and giant burial mound, and Rifa' Fort (Islamic). The tour will end with sunset at the "Tree of Life" at the center of the main island. Accompanying the tour will be qualified local area archaeologists and guides.



Exhibition

List of exhibitors (as of 28 January 2006)

Abu Dhabi National Oil Company (ADNOC)
American Association of Petroleum Geologists (AAPG)
Arab Oil and Gas
Archimedes Consulting
Bahrain Geoscience Society (BGS)
Bahrain Petroleum Company (BAPCO)
Baker Hughes Inc.
BGP International
Chemostrat Ltd.
Chevron
Compagnie Générale De Géophysique (CGG)
ConocoPhillips
Core Laboratories International B.V.
Corpro Systems
Deloitte
Deutsche Montan Technologie GmbH
Dhahran Geoscience Society (DGS)
Earth Decision Sciences
Emirates Link Reslab
Emirates Society Of Geoscience (ESG)
Earth Resources Exploration (EREX)
European Association of Geoscientists & Engineers (EAGE)
ExxonMobil Corporation
Fugro - Geoteam AS
Geological Society Of Oman (GSO)
Geomechanics International
Geotrace Technologies, Inc.
Grant Geophysical
Gulf PetroLink
Gulf Reservoir Modeling Technology (ResModTec)
Gulf Wells Corporation
Halliburton (Sperry-Sun Drilling Services)
Humble Instruments & Services
IES GmbH
IFP Group
IHS Energy Group
Ikon Science Ltd.
Input/Output
Inseis AS
IOEC
Isys - The Imaging Systems Group Inc.
Japan Oil, Gas & Metals National Corporation
Justcroft International Ltd.
Kanoo Travel
King Abdul Aziz City for Science And Technology
King Fahad University of Petroleum & Minerals
Knowledge Reservoir, LP
Knowledge Systems, Inc.
Kuwait Petroleum Corporation (KPC)
Landmark
Lynx Information Systems Ltd.
Magnitude
Mala Geoscience AB
Mercury Computer Systems
Midland Valley Exploration
National Petroleum Services
National Photo Services
Odegaard A/S
Paradigm Geophysical
Petroleum Development Oman (PDO)
Petronas
PGS
Pipeline Magazine
Qatar Petroleum (QP)
Riffa Golf Club
Roxar Software Solutions
Saudi Arabian Oil Company (Saudi Aramco)
Saudi Chemical Company
Saudi Geophysical Consulting Office
Schlumberger

Sercel
Shell International
Society of Exploration Geophysicists (SEG)
Society of Petroleum Engineers (SPE)
Space Imaging Middle East
Spectraseis Technologie AG
Spectrum Energy & Information Technology Ltd.
Statoil ASA
TEEC (Trappe Erdoel Erdgas Consultant)
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Sponsorship (as of 2 February 2006)

Principal Sponsor

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Wednesday Luncheon

ExxonMobil

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