ASNUL BAHAR
Principal Consultant on Integrated Reservoir Modeling / Flow Simulation
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EDUCATION

B.S., Mechanical Engineering, 1988, Institut Teknologi Bandung, Indonesia
M.S., Petroleum Engineering, 1994, University of Tulsa, OK, USA
Ph.D., Petroleum Engineering, 1997, University of Tulsa, OK, USA

RELEVANT EXPERIENCE

Principal Consultant, Kelkar and Associates, 1998 – Present

Developed and implemented new techniques for integrating geological, geophysical and engineering data and flow simulation for various reservoir field studiesProficient in using commercial software (e.g., PETREL, ECLIPSE) and/or customizing reservoir modeling software using C++, C# language. Developed PETREL Plug-ins using OCEAN platform. Received appreciation from one of the biggest oil operator in the Middle East after achieving the best history matched model commended by their international shareholders. Coordinating the operation of various on-going and prospectus consulting studies. Projects conducted include :

- Reservoir Modeling, History Matching and Prediction with Huff and Puff Gas Injection for Tight Oil Reservoir with Multistage Fractured Horizontal Wells, Unit Petroleum, Tulsa, OK.
- Optimization of Well Placement for Naturally Fractured Gas Sand reservoirs, China National Petroleum Corp.,
- Field Development Plan, that includes history match and prediction (primary depletion, water flooding, WAG, and artificial lift, for Highly Faulted Clastic Reservoir of Cheleken Blocks in Turkmenistan for Dragon Oil, Dubai, UAE
- Static and Dynamic Modeling with Uncertainty Analysis of Clastic Oil Rim Reservoir of Erb West Field, Petronas, Malaysia
- Infill Drilling Evaluation for Tight Gas Field (Pinedale – Formation) using production data, Ultra Petroleum, Colorado – USA
- Reserve Estimation and Flow Potential Evaluation from exploration field in Gulf of Mexico, USA.
- Reservoir Rock Type Modeling, Stochastic Property Modeling, Fracture Integration and History Matching, Shah - Simsima Formation, ADCO – Abu Dhabi, UAE
- Integrated Reservoir Study for Reserve Evaluation of Gas Field, Repsol YPF – Argentina
- Static Reservoir Modeling for water flood field and, Rosneft, Russia.
- Static Reservoir Modeling of fractured carbonate reservoir, Pioneer Natural Resources, Dallas, USA.
- Flow Simulation and Field Development Plan for candidate of CO_2 injection field, Chapparel, Oklahoma, USA
- Static Reservoir Modeling for Geothermal Field of Wayang Windu Field, Star Energy, Indonesia.
- Reservoir Rock Type Scheme Development, Upper Thamama Formation – ZADCO, Abu Dhabi, UAE
- Fracture Modeling and Integration into Reservoir Model, Arab-D Formation– Bunduq, Abu Dhabi, UAE
- Stochastic Reservoir Modeling, Sahil Field, ADCO, Abu Dhabi, UAE
- Reservoir Modeling and Fault Communication Study, NEB-Upper Thamama, ADCO – Abu Dhabi, UAE
- Integrated Reservoir Characterization and Flow Simulation, San Francisco Formation, HOCOL, Colombia
- Integrated Reservoir Characterization, Arab-C Formation, QGPC – Qatar

Instructor for Short Industrial Courses, 2002 - Present

Courses Taught for Worldwide Participants: Integrated Reservoir Modeling, Applied Geostatistics, Uncertainty Analysis, Conducting Integrated Reservoir Studies, Flow Simulation for Reservoir Modeler, Basic Reservoir Engineering, Gas Production Engineering

Reservoir Simulation Engineer (1997 – 1998), Schlumberger - GeoQuest Reservoir Technology.
Research Assistant, The University of Tulsa, 1993 - 1997
Wireline Logging Field Engineer (1988 – 1992) , Schlumberger - Wireline & Logging

Worked as Wireline Logging Engineer with assignment in Mexico, Argentina, Brazil, and Indonesia.

PATENT

Mohan Kelkar, **Asnul Bahar** and Harun Ates, "Dynamic Updating of Simulation Model". US 8,095,349 B2, Jan. 2012

KEY PUBLICATIONS

Kelkar, M. G., Pochampally, S., **Bahar, A**., and Sharifi, M.., "Dynamic vs. Static Ranking: Comparison and Contrast in Application to Geo-cellular Models", *SPE 170682, to be presented on SPE ATCE held in Amsterdam, The Netherlands, 27-29 Oct 2014*

Bahar, A., et. al., "An Innovative Approach to Integrate Fracture, Well Test and Production Data into Reservoir Models", *SPE Reservoir Evaluation and Engineering, Volume 8, Number 4, August 2005, pp. 325-336*

Bahar, A. and Kelkar, M.: "Journey from Well Logs/Cores to Integrated Geological and Petrophysical Properties Simulation: A Methodology and Application " *SPE Reservoir Evaluation and Engineering (October 2000) pp 444.*

Salem, S.E, Al-Deeb, M., Abdou M., Linthorst S., **Bahar A.**, and M. Kelkar, , "*Practical Flow-Simulation Method for a Naturally Fractured Reservoir : A Field Study*", *SPE Reservoir Evaluation and Engineering, Volume 9, Number 2, April 2006, pp. 173-185*