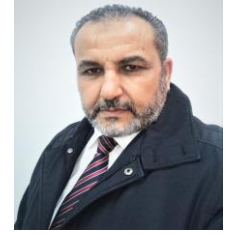


SALEM MOHAMED ALAKHDAR



PhD, Petroleum Engineering

Work Address

Libyan Petroleum Institute, LPI
Madina Syaheya, km 7, Gargarsh Road
P.O.Box : 6431
Tripoli-Libya
Tel. : (+218) 21 483 0028
Tel. : (+218) 91 325 2739
Email : s.alakhdar@lpilibya.com

Permanent Address

2 km, Airport Road
Tripoli, Libya
Tel. : (+218) 21 720 6017
Tel. : (+218) 91 325 2739
Email : salem.alakhdar@gmail.com

EDUCATION

- | | |
|---|---------------------------------|
| PhD, Petroleum Engineering
IFP-School / Université de Pau et des Pays de l'Adour
Thesis: Analysis of Model Parameterization and Optimization Strategies
in Assisted History Matching: Application to Libyan Field Case | December 2011
Paris, France |
| M.Sc., Petroleum Engineering
Tripoli University
Thesis: Validation of Theoretical Coning Models Using Numerical Single-Well
Simulation Model | July 2002
Tripoli, Libya |
| B.S., Petroleum Engineering
Tripoli University
Thesis: Development Plan of Faragh Field, Libya: Technical and Economical
Considerations | February 1990
Tripoli, Libya |

PROFESSIONAL EXPERIENCE

- | | |
|--|---|
| Research Engineer (Ph.D candidate)
IFP (Institut Français du Pétrole), Reservoir Engineering Department <ul style="list-style-type: none">• Reservoir parameters optimisation (history matching)• Main contributions (until Mar. 2011):<ul style="list-style-type: none">- Designed a parameterisation and optimisation methodology- Coupled the methodology to the reservoir simulator: PumaFlow (IFP)- Application the methodology to field case, onshore Libya | Jan. 2009 – Dec. 2011
Paris, France |
| Research Engineer (M.Sc. candidate)
Tripoli University, Petroleum Engineering Department <ul style="list-style-type: none">• Water Coning Problems (Theoretical Aspects)• Main contributions (until Mar. 2002):<ul style="list-style-type: none">- Designed a single-well numerical simulation model- Coupled to the reservoir simulator: ECLIPSE (Schlumberger)- Compared numerical with theoretical model (model validation)- Application to field case, onshore Libya | Sep. 1999 – July 2002
Tripoli, Libya |

WORK EXPERIERNCE

Management/Research

1998-2013

Full-Time

Libyan Petroleum Institute (LPI), Tripoli, Libya

- Researcher, Petroleum Engineering
 - Permeability Modelling of Amal Oil Field, Veba Oil Operations, Libya
 - Geological Modelling (RML, BeicipFranlab/IFP)
 - Reservoir Modelling (Athos, BeicipFranlab/IFP)
 - Development Group, Compartmental Reservoir Simulator (Mesbar-Oil)
 - Oil Initially In Place (OIIP) Determination
 - Pressure history matching
 - Efflux and influx between compartments
 - Drive indices determination
 - Development Group, Compartmental Reservoir Simulator (Mesbar-Gas)
 - Gas Initially In Place (GIIP) Determination
 - Pressure history matching
 - Gas migration between compartments
 - Drive indices determination
 - Conducted reservoir study on determining oil in place of Zaggut, Khalifa, Gialo 4U/4V and Ellateef oil fields, Waha Oil Company, Libya
 - Conducted reservoir study on determining gas in place of Al-Sahl Field, Sirte Oil Company, Libya
 - Head of IOR Research team for evaluating the Feasibility of Improved Oil Recovery for Libyan Oil Fields-committee formed by the National Oil Corporation (NOC)
 - Head, Rock Mechanics Group, Drilling and Reservoir Department
 - Head, Reservoir Simulation Group, Drilling and Reservoir Department
 - Member of the Technical Advisory Committee (TAC) on Petroleum Engineering
 - Committee member of the Petroleum Research Center Master Plan
 - Member of the Technical Committee on Technology of Oil and Gas Conference (TOG), organized by NOC/LPI, Libya
 - Head, Reservoir Studies Division
 - Acting Manager / Petroleum Engineering Department
 - Member of Management Committee for Technical Affairs
 - Member of Oil & gas reserves definitions Committee, NOC
 - Senior Technical Advisor, National Oil Corporation (NOC)

Oil Industry

1994-1998

Full-Time

Libyan Petroleum Institute (LPI), Tripoli, Libya

- Associate Researcher, Petroleum Engineering
 - Production and Reservoir Studies (Libyan Oil Fields)
 - Decline Curve Analysis (DCA)
 - Material Balance Equation (MBE) Applications

- Participated in a Comprehensive Evaluation Study for Ghani Field, Miscible Gas Displacement Using Farrud Gas to Increase Oil Recovery, Harrtuge Oil Operations, Libya
 - Formation Evaluation Full Field Study, Belhedan Oil Field, Waha Oil Company, Libya
 - Well test analysis
 - Reserve estimation
 - Oil initially in place (OIIP) determination
- Participated in a Full Simulation Study for Ghani/Zenad Field, Harruge Oil Operations, Libya
- Participated in a Full Simulation Study for Gialo/Augila S.S. Reservoir, Waha Oil Company, Libya

Oil Industry

1990-1994

Full-Time

Libyan Petroleum Institute (LPI), Tripoli, Libya

- Assistant Researcher, Petroleum Engineering
 - Participated in a study for Determining Factors Affecting Decline Curve Analysis in Libyan Reservoirs
 - PVT and EOR Research Group
 - Reservoir Fluid Properties (PVT Analysis)
 - Minimum Miscibility Pressure and Composition (MMP, MMC) Determination
 - Phase Behaviour of Reservoir Fluids

Teaching

2016-now

Part-Time

Libyan Academy, Chemical & Petroleum Eng. Department, Tripoli, Libya

- Supervising M.Sc. Projects
 - Productivity index and Pressure Behaviour for Oil Wells (Vertical & Horizontal)
 - Study of Water Coning Phenomena in Oil Wells, Libyan Case
 - Integrated EOR Study for Zenad Field, F Reservoir
 - A Model of Parameterization and Strategy of Optimization in Assisted History Matching Using Two Different Simulators

2006-2008/2016-now

Part-Time

Tripoli University, Petroleum Eng. Department, Tripoli, Libya

- Taught Production Design I, Reservoir Engineering, and Petroleum Engineering Introduction courses
- Supervising B.Sc. Projects

2014- now

Part-Time

Tripoli University, Petroleum Eng. Department, Tripoli, Libya

- Taught Reservoir Simulation course
- Supervising B.Sc. Projects

Teaching

2002-2006

Part-Time

Polytechnic Institute, Tripoli, Libya

- Teaching Petroleum Eng. courses
- Supervising Some Technical Projects

SEMINARS AND WORKSHOPS

- Presented more than 50 seminars, workshops and guest speaker lectures ranging from three-days to two-weeks in duration for both industry and academia covered different theoretical and practical aspects of drilling and well completions, reservoir engineering, reservoir management, petroleum economics and well testing.
- Some of the seminars covered the practical aspects and field case studies are implemented.

SKILLS

Language	: Arabic: mother language, English: Fluent, French: basic knowledge
Reservoir Simulators	: PumaFlow, Petrel, Eclipse
Software	: CondorFlow (Assisted History Matching), Cougar TM (Sensitivity & Risk Analysis)
Operating Systems	: Linux, Windows
Optimization	: Stochastic/Deterministic, with/without constraints
Communication	: Strong written and oral communication skills in Arabic and English

AWARDS AND SCHOLARSHIPS

- Recipient of the Libyan Petroleum Institute of Libya Scholarship for Ph.D. program, 2009-2011
- Recipient of the Libyan Petroleum Institute of Libya Scholarship for Master's program, 1999-2002
- Tripoli University Award for first highest GPA (Dean's List), M.Sc. Degree

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

- Member of the American Society of Petroleum Engineers (SPE)
- Member of the Libyan Society of Earth Science
- Chairman, Reservoir Characterization Session, TOG'04; Technology of Oil and Gas Forum & Exhibition, Tripoli, Libya, October, 2008
- Technical Committee Member of the Technology of Oil and Gas Forum & Exhibition (TOG04), Tripoli, Libya, October, 2008
- Steering Committee Member, North Africa Technical Conference and Exhibition (NATC2013) & (NATC2014), SPE Conference, Egypt
- Vice-president, Technology of Oil and Gas and Exhibition (TOG2014)

RESEARCH INTRESTS

- Application of Decline Curve Analysis Technology
- Evaluation of Oil Initially In Place (OIIP) by Different Techniques
- Characterization and Modelling of Oil Reservoirs
- Reservoir Management, Sensitivity and Risk Analysis

PUBLISHED JOURNAL PAPERS

1. Alakhdar S., Urayet A.; 1992: "Factors Affecting Decline Curve Analysis", PRC Journal, Volume 4
2. Alakhdar S., Urayet A. and Benrwine M.; 2004: "Validation of Theoretical Coning Models Using Numerical Single-Well Simulation", PRC Journal, Volume 16
3. Alakhdar S., Ding D. Yu., Dambrine M. and Jourdan A.; 2012 (SPE150716): "An Integrated Parameterization and Optimization Methodology for Assisted History Matching: Application to Libyan Field Case", Selected Papers, North Africa Technical Conference and Exhibition Proceeding, February 20-22, Cairo, Egypt

PUBLISHED CONFERENCE AND PRESENTATION PAPERS

1. Alakhdar S., Urayet A. and Benrwine M.; 2003: "Validation of Theoretical Coning Models Using Numerical Single-Well Simulation", 1st North Africa Mediterranean Petroleum & Geosciences Conference and Exhibition, EAGE, , October 6-9, Tunis
2. Alakhdar S., Tagas A. and Taeab N.; 2008: "Comparison Study of Published PVT Correlations and its Applications to Estimate reservoir Fluid Properties for Libyan Oil reservoirs", 10th Mediterranean Petroleum Conference and Exhibition (MPC), February 26-28, Tripoli, Libya
3. Alakhdar S., Ding D. Yu., Dambrine M. and Jourdan A.; 2011: "The Application of an Integrated Parameterization and Optimization Methodology to History Matching of Libyan Oil Field", International Conference on Flows and Mechanics in Natural Porous Media, from Pore to Field Scale, Pore2Field, IFP Energies Nouvelles, November 16-18, France
4. Alakhdar S., Ding D. Yu., Dambrine M. and Jourdan A.; 2012 (SPE150716): "An Integrated Parameterization and Optimization Methodology for Assisted History Matching: Application to

Libyan Field Case", North Africa Technical Conference and Exhibition, February 20-22, Cairo, Egypt

5. Alakhdar S., A. Asbiai; "Comparative Performance In Assisted History Matching Strategies (Parameterization and Optimization), Application to Field Case", 1st International Conference on Chemical, Petroleum, and Gas Engineering (CCPGE2016), 22-23 December, 2016.