

Basic Information :

Name : Omar Mahmoud
Title : Faculty Member at the Department of Petroleum Engineering



Omar Saad Ahmed Mahmoud: is currently working as faculty member at the Department of Petroleum Engineering, Faculty of Engineering and Technology, Future University in Egypt (FUE). Previously, he was working as petroleum reservoir engineer with the North American Unconventional Resources (NAUR) Team at Apache Corporation's San Antonio Region, USA. Before joining Apache Corporation, he worked as graduate research assistant/PhD Candidate for 4 years at the Harold Vance Department of Petroleum Engineering, Texas A&M University, USA. Previously, he worked for 8 years as assistant lecturer and teaching/research assistant at the Faculty of Petroleum and Mining Engineering, Suez University, Egypt. He also served as petroleum engineering intern at Apache Corporation (USA) during the summer of 2017. Mahmoud has a demonstrated history of working in the higher education and research industry in addition to a good industrial experience. His research interests include drilling fluids, rheology, filter cake characterization, nanoparticle applications, oilfield chemistry, formation damage and well stimulation, unconventional resources, reservoir simulation, and pressure transient/production data analysis. Mahmoud has authored/coauthored 21 technical articles and conference proceedings and serves as technical reviewer/editor for the SPE Drilling & Completion, SPE Production & Operations, and ASME Journal of Energy Resources Technology. He received PhD-degree from Texas A&M University, BSc and MSc degrees from Suez University, Egypt, all in petroleum engineering.

Education :

Certificate	Major	University	Year
PhD	Petroleum Engineering	Texas A&M University - U.S.A	2017
Masters	Petroleum Engineering	Suez University - Faculty of Petroleum and Mining Engineering	2009
Bachelor	.	Suez University - Faculty of Petroleum and Mining Engineering	2004

Teaching Experience :

Name Of Organization	Position	From Date	To Date
Apache Corporation, USA	Petroleum Engineer	01/01/2018	01/01/2018
Apache Corporation, USA	Engineering Intern	01/01/2017	01/01/2017
Texas A&M University, USA	Graduate Research Assistant (PhD Candidate)	01/01/2013	01/01/2017
Faculty of Petroleum and Mining Engineering, Suez, Egypt	Assistant Lecturer	01/01/2009	01/01/2013
Faculty of Petroleum and Mining Engineering, Suez, Egypt	Demonstrator (Teaching/Research Assistant)	01/01/2005	01/01/2009

Research :

Nanoparticles as Promising Additives to Improve the Drilling of Egyptian Oil and Gas Fields
Formation-Damage Assessment and Filter-Cake Characterization of Ca-Bentonite Fluids Enhanced with Nanoparticles
Nanoparticle-Based Drilling Fluids as Promising Solutions to Enhance Drilling Performance in Egyptian Oil and Gas Fields
Estimating Ultimate Recoveries of Unconventional Reservoirs: Knowledge Gained from the Developments Worldwide and Egyptian Challenges
Can Nanoparticles Improve the Characteristics of Drilling Fluids?
Effect of Ferric Oxide Nanoparticles on the Properties of Filter Cake Formed by Calcium Bentonite-Based Drilling Muds

Study of Cluster Efficiency in Unconventional Reservoirs by Analytical Simulators

Formation Damage Assessment and Filter Cake Characterization of NPs/Ca-Bentonite Fluids for Drilling Harsh Environments Using Computed-Tomography Scan

Using Ferric Oxide and Silica Nanoparticles To Develop Modified Calcium Bentonite Drilling Fluids

New Magnetite Nanoparticles Allow Smart Drilling Fluids with Superior Properties

Development of Novel Drilling-Fluids Nanoparticles for Enhanced Drilling Operations

Studying the Combined Effect of Wellbore Storage and Skin on Well Testing Using Simulation and Analytical Solutions

Conference :

Nanoparticles as Promising Additives to Improve the Drilling of Egyptian Oil and Gas Fields

Nanoparticle-Based Drilling Fluids as Promising Solutions to Enhance Drilling Performance in Egyptian Oil and Gas Fields

Estimating Ultimate Recoveries of Unconventional Reservoirs: Knowledge Gained from the Developments Worldwide and Egyptian Challenges

Can Nanoparticles Improve the Characteristics of Drilling Fluids?

Study of Cluster Efficiency in Unconventional Reservoirs by Analytical Simulators

A New Look at Reserves Estimation of Unconventional Gas Reservoirs

EUR Prediction for Unconventional Reservoirs: State of the Art and Field Case

Formation Damage Assessment and Filter Cake Characterization of NPs/Ca-Bentonite Fluids for Drilling Harsh Environments Using Computed-Tomography Scan

Characterization of filter cake generated by nanoparticle-based drilling fluid for HP/HT applications

Smart Magnetic Drilling Fluid With In-Situ Rheological Controllability Using Fe₃O₄ Nanoparticles

Use of Fe₃O₄ and SiO₂ Nanoparticles to Develop Smart Drilling Fluids: A Comparative Study

A comprehensive approach for the development of new magnetite nanoparticles giving smart drilling fluids with superior properties for HP/HT applications

Incorporation of Fe₃O₄ nanoparticles as drilling fluid additives for improved drilling operations

Nanoparticle-based drilling fluids for minimizing formation damage in HP/HT applications

Development and Testing of Novel Drilling Fluids Using Fe₂O₃ and SiO₂ Nanoparticles for Enhanced Drilling Operations

Development and Testing of Novel Drilling Fluids Utilizing Nanoparticles for Enhanced Drilling Operations

Development of Nano-based Drilling Fluids for Improved Oil & Gas Applications

Dynamic and Static Fluid Loss Characteristics and Rheological Properties of Nano-Based Drilling Fluids

Utilization of iron oxide nanoparticles in drilling fluids improves fluid loss and formation damage characteristics

Chapter :

Influence of Tailor-Made TiO₂/API Bentonite Nanocomposite on Drilling Mud Performance: Towards Enhanced Drilling Operations

Formation Damage Assessment and Filter Cake Characterization of Ca-Bentonite Fluids Enhanced With Nanoparticles

Nanoparticle-Based Drilling Fluids as Promising Solutions to Enhance Drilling Performance in Egyptian Oil and Gas Fields

Estimating Ultimate Recoveries of Unconventional Reservoirs: Knowledge Gained from the Developments Worldwide and Egyptian Challenges

Effect of Ferric Oxide Nanoparticles on the Properties of Filter Cake Formed by Calcium Bentonite-Based Drilling Muds

Using Ferric Oxide and Silica Nanoparticles To Develop Modified Calcium Bentonite Drilling Fluids

Thesis :

Improving the Characteristics of Water-Based Drilling Fluids Using Nanoparticles

Design of Well Testing Programs for Oil and Gas Wells using Simulation and Analytical Solutions

Other :

Studying the Combined Effect of Wellbore Storage and Skin on Well Testing Using Simulation and Analytical Solutions