

VINOD KKAVLE

Senior Reservoir Engineer

Industry Experience: - 15+ years

Nationality: - British

Family status: Married

SUMMARY

An experienced Reservoir Engineer with varied knowledge from Reservoir engineering-studies, Reservoir management and operations.

Managed projects in clastic and carbonate reservoirs in the UK and Middle East. Projects worked on comprise marginal gas reservoirs to huge oil reservoirs with huge gas-caps.

Key personnel in reservoir studies team, works closely with multidisciplinary team. Hands-on with dynamic modelling using conventional and numerical tools. Specialist expertise with dynamic modelling, PVT characterization, SCAL analysis, reserves calculation and full field development-green and brown fields.

Key Skills:

- Good working knowledge of various Reservoirs engineering discipline including: Reservoir simulation, Uncertainty analysis, reserves evaluations, material balance calculation, decline curve analysis and well test analysis,
- Good working knowledge of static and dynamic reservoir characterization methods
- Working knowledge of other disciplines (geology, geophysics, petrophysicst, drilling, production operations and economics)
- Good exposure to Field Development Planning and Reservoir Management.
- Practice in well testing design, field supervision, interpretation and integration of results in dynamic models.
- Functional understanding of production operations and drilling. Extensive work in Uncertainty analysis.
- Ability to work in fully-integrated teams.
- Actively support company's commitment to occupational health & safety and the environment, including: Adopting standard safe work practices and procedures in accordance with the Company's safety policies.

Education and Professional Qualifications

- MSc Petroleum Engineering, Heriot--Watt University, Edinburgh, 2004
- Bachelor of Engineering (B.E)--Petroleum Engineering, Maharashtra Institute of Technology (MIT), Pune (India), 2001

Senior Reservoir engineer**(July 2014-DATE)****Bul Hanine Arab-C&D; Mid-Jurassic Redevelopment, QATAR PETROLEUM, Doha, Qatar (Carbonate Reservoirs)**

Arab D and Arab C with more than 40 years' history and more than 120 wells is a key redevelopment project in QP. Arab reservoirs are stacked reservoirs separated from each other by anhydrite intervals.

- Build and maintain a reservoir simulation model using ECLIPSE Compositional and other tools such as Petrel RE in supporting the existing history matching and redevelopment plan. Key challenge-water cut match. Uncertainty on saturation model, fault network and communication, oil relative permeability. Other details such as Cement bond log, Production logging and completion data and not to mention the SCAL data have been looked at to improve the history match.
- Extensive use of RST logs to make sure the model is capturing the changes in field water saturation.
- Recommend appraisal and delineation (wells and data acquisition) opportunities in BH.
- Evaluate benefits of offshore gas recycling project with high sour gas. Study the benefits of injecting lean gas/rich gas.
- Pursue higher management to acquire pressure data, fluid data, and long term test at higher choke size to see the behaviour of GOR, as well productivity can undermine the field development.
- Successfully defended annual reserves for Bul Hanine field. Lead RE to evaluate and report BH reserves in 2014/2015. Responsible for setting-up and maintenance of the reserves database. Manage, update and QC data for quarterly and year end reserves.
- Participate in peer assists and peer reviews and seek input from others to ensure technical high quality is achieved in evaluations
- Mentor and assist Qatari graduates.

Senior Reservoir engineer**(Dec 2011-Jul 2014)****BAB Development, ADCO, Abu Dhabi, UAE (Carbonate Reservoirs)**

Bab development is one of significant redevelopment project in UAE and is the backbone of ADCO's success. Bab reservoir has several stacked reservoirs separated by stylolite intervals.

- Reservoir modelling and simulation (Compositional) using VIP and other tools in supporting the development plan and existing history matching work.
- Ensure proper maintenance of reservoir engineering data including timely receipt, QCing, and updating of production data in associated files or databases. This includes routine and special core analysis data, PVT data, pressure tests, and production capacity test results used in reservoir engineering studies.
- Analysis of surveillance data; incorporate it in the development plan; support optimisation of infill well locations as part of development well strategy.
- Key contribution in making sure no condensate migration happens during oil rim development
- Validation of laboratory analysis for routine and advance studies, incorporation of valid fluid samples data into existing EOS model and update the EOS model for EOR studies using PVTsim. Key contribution in standardizing PVT reports prepared by third party service providers.
- Establish and follow up reservoir study work program (PVT EOR study and SCAL study) to optimize the hydrocarbon recovery in the assigned reservoir. Includes reviewing/analysing findings and implementing study recommendations.
- Recommend reservoir programs for pilot studies of secondary oil recovery schemes. Present fully justified proposals for field trials for water injection and water alternating gas (WAG) methods. Monitor the performance of oil/gas and injection wells and report findings to cross discipline teams outlining estimated impact on the field.
- Lead member of Thamama-H field in the Bab oil reservoir and leading a team of reservoir engineers, geologist and petrophysicist and geophysicist to assure the development of the field and implementation of the approved development plan. Create and follow-up the team plan activities, provide technical support and mentor less experienced team members.
- Provide technical quality report (bi-annually) to the management and also share it with the partners.

Reservoir engineer**(Oct 2010-Sep 2011)**

Blueback Reservoir Ltd, Chessington, UK (Consultancy)

- Provide Reservoir engineering support on an exploration and development project to investigate the feasibility of deploying gas-lift and water injection for maintaining the oil production above plateau. Duties and responsibilities include constructing the simulation model to understand reservoir drive mechanism; vertical connectivity and also running multiple scenarios to find out structural uncertainty.
- Participate in data rooms to ensure operator compliance. Analyse and Interpret data from international prospect-Norwegian asset (HPHT) for Centrica Energi, Norway. Verify and compare reservoir parameters, material balance calculation, decline curve analysis (DCA) for reserves calculation.
- Update simulation model, model validation and prediction modelling for Mulle field for DNO.

Reservoir engineer

(Feb 2007-Sep 2010)

Centrica Energy, Windsor, UK (North Sea)

Lead Reservoir engineer working on an operated asset

(Jan 2010-Sep 2010)

- In charge of development projects for a gas assets in East Irish Sea (EIS). Duties and responsibilities were general reservoir engineering tasks, which include constructing the simulation model, preparing a business case for booking resources during year 2010-2011.
- Conduct reservoir engineering analysis, studies and performance evaluations mainly focusing on efforts to optimize operations and recovery from existing reservoirs
- Work closely with operational staff, and with other professionals, such as geologists, geophysicists and petrophysicists, Joint Venture partners, Government bodies.
- Development and monitoring Reservoir Management plan & Reservoir Depletion strategy for North Morecambe field (EIS). Constructed an integrated field model using IPM tools (Prosper-MBAL-GAP), run them for various operating conditions.

Reservoir engineer as a Reserves co-ordinator

(Mar 2008-Dec 2009)

- Responsible and accountable for reserves reporting for CE operated and non-operated assets. Reserves estimation for Year-end reserves reporting. Participated in the reserve booking process including gathering, compiling, analysis and consolidation of technical and financial data into reserve reports following SPE-PRMS guidelines.
- Responsible for setting-up and maintenance of the reserves database. Manage update and QC data for quarterly and year end reserves.
- Communicate proactively with numerous parties to gather data and inputs necessary for forecasts, reserves and opportunity queue as well as report out to stakeholders on issues, findings and recommendations.

Reservoir Engineer as an Asset Engineer

(Feb 2007-Sep 2010)

- Focus on construction, history matching, and general maintenance of the simulation models.
- Modelling Vertical lift and inflow performance (VLP/IPR – Prosper) for development wells; PVT modelling (PVTp) for reservoir characterization and providing inputs to simulation model.
- Review well completion, testing and reservoir surveillance programs and ensure execution accordingly.
- Contribute to various field development plans and identify field upside potentials
- Technical input/support to appraisal and new field development planning and execution of technical programmes in conjunction with drilling/well operations

Reservoir Engineer

(Sep 2005-Jan 2007)

Schlumberger Information Solutions (SIS), Gatwick, UK

- Project with Qatar Petroleum (QP), Qatar for conversion of offshore carbonate ECLIPSE Model to Petrel RE model and update with well logs, RFT/MDT data, PLT and history data.
- On site client support on dynamic reservoir modelling workflows using Petrel RE.
- Provide reservoir engineering support to support ECLIPSE and Petrel RE softwares (Schlumberger propriety)
- Conduct workshops on recurrent Reservoir Engineering issues and challenges faced by Reservoir Engineers at various client sites.

- Deliver Petrel RE and ECLIPSE Back-Oil public courses to clients

Geolog engineer

(Dec 2001-Jun 2003)

Oilfield Instrumentation (OFI) India, Mumbai, India

- Real-time monitoring of drilling and mud parameters.
- Operating and maintaining real-time computer based data acquisition system that records all aspects of rig activity.
- Basic geology by identifying and describing samples, analysis including check of fluorescence and cut, shale factor, shale density and calcimetry.

Technical papers authored

- “Impact of Intelligent wells on Oilfield Scale Management” (**SPE 100112**)
- “Impact of In Situ Sulphate Stripping on scale Management in the Gyda field” (**SPE 100516**)

Conference (Technical) Presentations

- SPE Europe/EAGE Annual Conference and Exhibition held in Vienna, Austria, 12-15 June 2006-- “Impact of Intelligent wells on Oilfield Scale Management”.

Professional Trainings

- Black Oil (ECLIPSE) and Advanced Reservoir Simulation by Schlumberger
- Petrel G&G and Petrel RE by Schlumberger
- PVTsim by Calsep
- Pressure Transient Analysis (Saphir) and Production Analysis by Kappa
- Prosper, MBal, GAP (IPM) by PETEX
- Integrated Reservoir Analysis-Rock Types, flow units and applied case studies by Gary W. Gunter and John B. Thomas, NeXT
- Natural Gas Engineering by Mark Miller, HOT Engineering.

Software Skills

- Eclipse (ECLIPSE 100, ECLIPSE 300, FloGrid, FrontSim);
- Petrel RE & GG
- VIP/Nexus-Landmark simulators
- Fluid Modelling-PVTsim (Calsep)
- Uncertainty Analysis-MEPO, EnABLE
- Decline Curve Analysis- OFM
- Saphir, Topaz, Emeraude (Kappa)
- MBAL, PROSPER, GAP (IPM)
- Economics and Reserves tool-PEEP, MERAK, VOLTS (Schlumberger)

References Available on request