PRATEEK R. CHOUDHARY

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PETROLEUM ENGINEER

Innovative Petroleum Engineer with Masters of Science in Petroleum Engineering from University of Southern California (USC), with skills in Reservoir Engineering and Simulation, Enhanced Oil Recovery, Economic Analysis, Hydraulic Fracturing and Production Forecasting. Worked with Halliburton, India as a Cementing Engineer and developed skills in designing and modeling tailored solutions, project management, team leadership, problem-solving, and client relations. Ability to interpret and integrate data to perform high-level analysis and modeling. Experience in preparing presentations and reporting to senior management.

COMPUTER SKILLS

• MATLAB • FracPro • GOHFER • MS Excel • MS PowerPoint • IHS Fekete • iCem

COMPUTER MODELING GROUP (CMG) CERTIFICATE

- Reservoir Simulation Model Creation & Analysis using BUILDER and RESULTS
- Assisted History-Matching, Optimization, Sensitivity Analysis & Uncertainty using CMOST
- Creating PVT Models for IMEX, GEM & STARS using WINPROP
- Reservoir Simulation of Thermal EOR Process using STARS and CMOST
- Reservoir Simulation of Chemical EOR Process using STARS & CMOST
- Reservoir Simulation of Shale Gas & Tight Oil using IMEX, GEM & CMOST
- Reservoir Simulation of Miscible Gas Injection EOR Process using GEM & CMOST
- Geomechanics in GEM and STARS

CAREER NARRATIVE

HALLIBURTON OFFSHORE SERVICES, INC. *July 2013 - June 2015*

***Cementing Department, Associate Technical Professional (ATP)**, Mumbai, India*

Delivered services to CAIRN India, Reliance Industries Ltd. Engaged in designing cementing solutions and engineering cement job modeling and simulation while performing multiple primary/remedial cementing jobs contributing to 15% of the total department revenue in the country.

- Completed five critical profile jobs of 4.5" linear cementing in horizontal to high-deviation wells at CAIRN in collaboration with a team comprised of a service supervisor and operator assistants.
- Actively supervised job scope/execution, real-time data acquisition/monitoring, and EDC monitoring/control.
- Managed well issues such as lost circulation, stuck pipe and well control issues.
- Communicated with the client representative and addressed project concerns.
- Successfully organized, prepared and reported pre-job reports and post-job analysis to senior country management.

OIL AND NATURAL GAS CORPORATION LIMITED (ONGC) *May-June 2012*

***Workover/Well Services Department Intern**, Ahmedabad Asset, India*

Played a key role in the "Real-Time Micro Seismic Monitoring of Hydraulic Fracturing" project, analyzing fracture propagation and fracture effectiveness using Seismic Moment Tensor Inversion (SMTI) analysis, and adjusting the pump rate and stimulation parameter to optimize hydraulic fracture propagation and placement.

EDUCATION AND PROFESSIONAL DEVELOPMENT

University of Southern California (USC), *Los Angeles, CA* *December 2016*

Master of Science – Petroleum Engineering

Key Projects:

- ***Development of Multi-Phase Numerical Simulator to Study Recovery from the Reservoir**: Calculated reservoir pressure distribution with different scenarios of producer and injector wells utilizing MATLAB to code analyzed primary recovery, secondary recovery and infill drilling and estimated reservoir pressure, well-flowing pressure, average pressure, saturation profile, oil production, and oil recovery.*
- ***Hydraulic Fracturing Job Design and Sensitivity Study Using Software FracPro and GOHFER**: Designed a hydraulic fracturing job for a vertically anisotropic formation with various geomechanical properties, engaging in sensitivity analysis of fracture parameters such as fracture half-length, height, width, efficiency and net pressure by varying the parameter of leak-off coefficient using the two software packages.*

- ***The Rate of Reservoir Cooling in a Steam Flood Reservoir After Cessation of Steam Flood****: Successfully calculated the rate of reservoir cooling (heat loss rate), cumulative heat loss and average reservoir temperature in addition to performing sensitivity analysis with Downhole Steam Quality with temperature profile governed by Fourier's law.*
- ***Probabilistic Estimation of Underground Reserve and Economic Output****: Performed probabilistic estimates and economic evaluations of the reserve using Monte-Carlo simulation, and charted Cumulative Distribution Function (CDF) and Probability Density Function (PDF) for various input parameters such as reserve, cost, oil price and recovery factors while interpreting NPV in different risk scenarios depending on the probability of risk.*
- ***Natural Gas Engineering: Field Development Project****: Developed a strategy for a gas field development with Isochronal test data, reservoir parameters, contract and regulatory constraints. Devised deliverability equation and reservoir performance to maintain contract condition while estimating the effect of well stimulation and spacing in development strategy.*
- **CO_2 *Flooding in Horizontal Wells****: Elaborated on the concept of Stimulated Reservoir Volume (SRV) in horizontal wells in a low permeability tight oil reservoir. Reviewed a case study on CO_2 flooding in a tight oil reservoir, studied CO_2 flooding with different well completion configurations while optimizing parameters such as production rate, shut-in GOR, and total gas injection volume.*

PANDIT DEENDAYAL PETROLEUM UNIVERSITY (PDPU), *Gandhinagar, Gujrat, India* *May 2013*
Bachelor of Technology – Petroleum Engineering

- *Recipient of Merit Scholarship for Academics.*
- ***Evaluation of Cambay Shale, Cambay Basin, Gujrat, India, for Exploration of Shale Gas: Challenges and Opportunities****: Evaluated the prospect of Cambay shale for shale gas exploration in regard to geochemical and geomechanical properties, and designed a hydro-fracturing model for the exploration of shale gas.*