

# PRERNA SINGH

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## EDUCATION

- 2008 Ph.D. | University of Oklahoma | ConocoPhillips School of Geology & Geophysics  
Thesis Title: *Lithofacies and Sequence Stratigraphic framework of the Barnett Shale, Fort Worth basin, NE Texas.* | Advisor: Roger M. Slatt
- 2004 M.Sc. | University of Delhi | Department of Geology  
Thesis Title: *Petrography of Ganmachidam Fm., Spiti, Tethys Himalaya, Himachal Pradesh, India.* | Advisor: Dhiraj Banerjee
- 2002 B.Sc. | University of Delhi | Department of Geology

## PROFESSIONAL EXPERIENCE

- 2019 - Present *Research Scientist*, University of Houston, Houston, TX
- 2018 - Present *Online and In-Classroom Course Instructor*, Applied Stratigraphix, Westminster, CO and Petrolessons, Houston, TX | Selected Short Course Titles: *Sequence Stratigraphy, Geomechanics of Unconventional Plays and Applications in Optimized Exploitation; Shale Oil Characterization*
- 2017 *Workshop Instructor*, Petroleum ETC, Houston, TX | Selected Workshop Titles: *Geology and Geomechanics of Unconventional Plays and Applications in Hydraulic Fracturing; Stress & its Implications on Completion Stages, Frac Hits and Refracs*
- 2016--2014 *Interpretation Geophysicist*, Chevron, Houston, TX | Responsibilities & Deliverables: To characterize Bone Spring, Granite Wash, Cotton Valley and Wolfcamp seismic data  
-Developed integrated workflow using inversion, wireline logs and production data for potential use in resource booking.  
-Built attribute analysis and inversion products for real time well drilling assistance.  
-Facilitated Uncertainty Management Plan for Mid-Con Business Unit for over three years.  
-Received business unit recognition for expedited delivery of velocity modeling product.
- 2014--2011 *Development Geologist*, Chevron, Houston, TX | Responsibilities & Deliverables: Drilled, logged & cored pilot and horizontal appraisal wells in Haynesville and Bossier shale  
-Estimated resource volumetrics & assessed several business development plans.  
-Prepared well recommendations based on reservoir characterization – regional correlations, log and core (Routine, selected SCAL) and net pay calculations.  
-Developed sequence stratigraphic framework for landing/target zone selection.  
-Monitored competitors activity through state, scout, company reports.  
-Collaborated with engineers to map production data to tackle manual interference with flowing pressure/ choke sizes.

- 2011--2008 *Exploration Geologist*, Chevron, Houston, TX | Responsibilities & Deliverables: Regional Assessment of Marcellus Shale
- Completed regional scale analysis by integrating geologic, petrographic, geochemical, and rock mechanical data to capture better reservoir potential.
  - Completed similar regional assessment, play tiering/high-grading and volumetric estimations for Barnett, Woodford, and Cisco/Canyon and booked resource volumes in Opportunity Catalog database.
  - Assessment led to two multi-billion dollar acquisitions.
  - Awarded for establishing petrophysical workflow in unconventional shale plays.
  - Generated seismic interpretation, Offshore Congo 3D data to define reservoir, flow barriers by mapping key horizons, channel-complexes and fluid leakage features.

## PUBLICATIONS

Slatt, R.M., P.R. Philp, N. O'Brien, Y. Abousleiman, **Singh, P.**, E.V. Eslinger, R. Perez, R. Portas, E. T. Baruch, K. J. Marfurt, and S. Madrid-Arroyo, 2012, Pore-to regional-scale, integrated characterization workflow for unconventional gas shales, , in Breyer, J. (ed) Shale Reservoirs—Giant Resources for the 21<sup>st</sup> Century, AAPG Memoir 97, p. 127-150,

**Singh, P.**, R. Slatt, and W. Coffey, 2008, Barnett Shale—Unfolded: Sedimentology, sequence stratigraphy, and regional mapping: Gulf Coast Association of Geological Societies Transactions, v. 58, p. 777-795.

**Singh, P.**, Slatt, R. M., Borges, G., Perez, R., Portas, R., Marfurt, K., Ammerman, M. and Coffey, B., 2008: Reservoir Characterization of Unconventional Gas Shale Reservoirs: Example from the Barnett Shale, NE Texas, U.S.A. VI Ingepet, Peru EXPL-1-RS-124, p.1-18.

Slatt, R. M., **Singh, P.**, Philp, R. P., Marfurt, K. J., Abousleiman, Y. N., & O' Brien, N. R. 2008, Workflow for Stratigraphic Characterization of Unconventional Gas Shales. SPE 119891-MS

## Presentation Abstracts

**Singh, P.**, Slatt, R. & Coffey, W. 2008. Sequence stratigraphy of mudrocks: example of the Barnett Shale, North Texas, USA (abs.): 33<sup>rd</sup> International Geological Congress

**Singh, P.**, Slatt, R.M., Chandra, R., Chris, S., 2008. How is the Barnett Shale stratified? Extracting the answer from cores and logs. (abs.): AAPG Annual Convention

**Singh P.**, R. Slatt, C. Rai, C. Sondergeld and C. Stamm, 2007. Stratigraphy and Petrophysics of the Barnett Shale, Newark East Field, Texas (abs.): AAPG Midcontinent Annual Section Meeting.

**Singh P.**, J. Perez, R. Slatt and C. Stamm, 2007. Lithofacies and their Wireline Log signature: Barnett Shale, North Texas (abs.): SPWLA Oklahoma City Chapter Meeting

**Singh, P.**, Slatt, R.M., Chandra, R., Sondergeld, C., Chris, S. 2007. Stratigraphy of the Barnett Shale, Newark East Field, Texas (abs.): GSA South-Central/ North-Central Joint section Meeting

**Singh, P.**, Slatt, R.M., Chandra, R., Sondergeld, C., Chris, S., 2007 Stratigraphy and Petrophysics of the Barnett Shale, Newark East Field, Texas (abs.): AAPG/SEG Spring Student Expo

**GRANTS**

2008	AAPG Grant in Aid - Thomas A. Hendricks Memorial Grant	\$2000
2007	AAPG SW Section Scholarships and Grants	\$500
	ConocoPhillips SPIRIT Scholarship	\$5000
	GSA NC/SC Section Meeting 11-13 April'07 Travel Grant	\$200
	Oklahoma City Geological Foundation Scholarship Taken-Kate Award	\$5000
	Grant for ConocoPhillips Ancient Carbonate Field Trip, May 21-25 <sup>th</sup>	
	Grant for RMS-AAPG field school to the Lewis Shale	

**AWARDS & HONORS**

2015	Certificate of Recognition for Midland Basin Depth Conversion Project, Chevron R&A for Successful completion of Delaware Basin Salt Water Disposal Deep Well Project UMP, Chevron
2012	RM Award for Petrophysical workflows in Unconventional Plays, Chevron
2011	Ovation Award, Chevron Winning Together Award, Chevron Recognition for Marcellus Asset acquisitions, Chevron
2008	Student of the Year Award, Tulsa Geological Society
2007	2nd Annual SEG Challenge Bowl Second Place winner Best Poster Prize at AAPG/SEG Spring Student Expo SEG Regional Challenge Bowl First Place winner SPWLA OKC Speaker Recognition, April 10 <sup>th</sup>
2004	M.Sc. University Topper Gold Medal Hans Raj College Gold Medal Certificate of Merit
2003	Science Meritorious Award
2002	B.Sc. University Topper Gold Medal Hans Raj College Gold Medal Science Meritorious Award Certificate of Merit
2001	Science Meritorious Award

**PROFESSIONAL MEMBERSHIPS**

American Association of Petroleum Geologist (AAPG)  
Geological Society of America (GSA)  
Society of Exploration Geophysicists (SEG)  
Society of Petroleum Engineers (SPE)