

Padmaker Deo

Senior Geophysicist / Geoscientist

paddydeo@tdi-bi.com, (979) 693-3446



TDI-Brooks International, Inc.

14391 S. Dowling Rd, College Station, TX 77845

Ph: (979) 693-3446 Fax: (979) 693-6389

www.tdi-bi.com

PROFESSIONAL EXPERIENCE

- Geophysicist, Project Manager, TDI-Brooks International, Inc., March 2023 – Present
- Pore-Pressure Specialist, SLB, September 2022 – February 2023
- Lead Exploration Geophysicist, ExxonMobil, 2009 -2021
- Petrophysicist / Technology Development, Baker Hughes, 1999 - 2009

PROFESSIONAL HIGHLIGHTS

- Senior Geophysicist with expertise covering reservoir characterization, advanced geophysical analysis, marine & land geophysical data acquisition and drill-well operations. Broad upstream subsurface experience including key contributions in the Gulf of Mexico and worldwide geophysical data acquisition projects.
- Supervised Antrim prospect - sub-salt DHI driven hydrocarbon discovery in Green Canyon block of GOM. Antrim prospect resource was successfully validated by drilling. Led subsurface characterization of nearby Hershey prospects to test additional nearby potential. Led Geophysical data analysis in the Green Canyon blocks and the subsequent farmout by establishing technical measures that enabled business decisions.
- Analyzed and led Thunderhorse East prospect evaluation in Mississippi Canyon block to enable fast tracked development and tie back to existing facility. Key well success was validating presence of additional reservoir potential. Coordinated with operations geologists, Petrophysicist, reservoir engineers, drilling engineers, commercial, and regulatory to plan, permit, and safely drill well to objective reservoir.
- Executed multiple projects for prospect generation in the GOM with hands on expertise covering interpretation, velocity model building, working with low signal in a complex geologic environment resulting in structurally correct earth images used for operational decisions and workshop presentations with coventurers.
- Designed and executed multiple seismic surveys in Guyana, East Canada, Angola, and Sakhalin. Key technical design experience includes 4D acquisition for Monitor survey in Angola in view of the infrastructure and technical constraints. Expertise includes shallow water Seismic and Bathymetry/Geotechnical survey designs in Argentina and East Canada.

KEY ACHIEVEMENTS - TDI BROOKS INTERNATIONAL, INC.

- Geophysicist, Project Management Support for High-Resolution Seismic Surveys- acquisition design and processing
- Project Management for High Resolution Seismic and Hydrographic Survey data acquisition, review data processing, shallow hazard interpretation, regulatory submission, and data management for Wind / Oil& Gas Marine Site Investigation Surveys.

KEY ACHIEVEMENTS - SLB

- Pore-Pressure Specialist for Realtime Operations. Integrate pore pressure management recommendations into drill plan with active Operations support.
- Lead support role for SLB's operations and ensure compliance with pore and fracture pressure forecasts and pressure detection strategies. Including evaluation of zonal isolation requirements for well construction.
- Support formation pressure sampling strategies to refine real-time pressure-prediction scenarios and recommend contingencies based on potential impact.

KEY ACHIEVEMENTS - EXXONMOBIL EXPLORATION COMPANY

- Lead Exploration Geophysicist – Gulf of Mexico Business Team & Technical Advisor – Geophysical Acquisition,
- Key exploration team member for well placement, drilling, and evaluation of deep-water prospects in the Gulf of Mexico. Advised planning, technical designs, and execution of multimillion-dollar 3D seismic acquisitions, with an emphasis on time and budget deliveries. *Key role in evaluation of multi-component technology application decision based on business and imaging needs.*

Padmaker Deo

Senior Geophysicist / Geoscientist

paddydeo@tdi-bi.com, (979) 693-3446



TDI-Brooks International, Inc.

14391 S. Dowling Rd, College Station, TX 77845

Ph: (979) 693-3446 Fax: (979) 693-6389

www.tdi-bi.com

- Technical lead for joint OBN and Streamer acquisition for sub-salt imaging in Gulf of Mexico and Brazil offshore. Key technical driver was to optimize acquisition for Full Wavefield Inversion application. Evaluated optimized acquisition azimuth to maximize illumination of sub-salt targets through advanced ray tracing models.
- Led feasibility study to assess expected 4D difference and make a business case for acquisition of a 4D seismic acquisition in Angola amidst offshore infrastructure constraints, ensuring fit-for-purpose acquisition within budgeted costs. Key technical challenge was repeatability on Ocean Bottom Cable base acquisition and optimization of survey design utilizing new technology by understand its potential risks and benefits.
- Evaluate and advise on borehole seismic applications for velocity anisotropy detection specific to Unconventional reservoirs to help improve geo-mechanical property prediction. Provided oversight and quality control of Sonic & VSP data sets to help improve seismic inversion quality for unconventional reservoir property prediction.
- Analyzed and optimized land seismic survey designs for a challenging 3D VSP acquisition project in Iraq utilizing existing equipment availability to study water flooding for a potential 4D application.
- Led technical design analysis for ultra-shallow water seismic acquisition projects in Guyana, Sakhalin, Offshore Canada, and Argentina Optimized survey design, enabling imaging key targets in a shallow water acquisition scenario.
- Managed seismic data acquisition operations in various geographical locations (Mediterranean, West Africa, North America), evaluated survey performance and provided recommendations on seismic survey design scenarios considering project specific technical drivers, feasibility, and cost, enabling for fit-for-purpose acquisition.
- Supervised shallow hazard and bathymetry survey acquisition in East Canada, ensuring project met or exceeded technical, regulatory and safety standards. *Key project experience included the first acquisition of Near-Surface Leak-off Test in collaboration with multiple stakeholders.*
- Constructed and evaluated velocity models for a large regional seismic reprocessing effort; evaluated impact of depth uncertainty on structure and drill-ready prospects, quantifying impact on volumetrics and well placement.

KEY ACHIEVEMENTS – BAKER RHUGHES

- Petrophysicist / Technology Development
- Managed and supported Petrophysical evaluation and real-time data acquisition and evaluation projects for several exploration prospects in the Gulf of Mexico. In house advisor for petrophysical and logging data support for Anadarko Corporation
- Managed LWD and wireline data acquisition for multiple wells in the GOM; interface for suggesting appropriate technology application for petrophysical evaluation.
- Technical contact for Mad Dog / Atlantis drilling campaign for BP in the GOM. Advised on tool/petrophysical applications to mitigate specific well problems and help achieve well evaluation objectives. Key application involved use of LWD Sonic tool to aid cementing quality assessment. This resulted in direct cost savings to drilling campaign
- Technical Advisor for reservoir navigation / geo-steering projects which enabled well placement in poorly imaged sub-salt wells in the Gulf of Mexico; applied resistivity modelling and LWD image data sets to help steer directional wells through reservoir sections in a difficult imaging environment.

FORMAL EDUCATION

- University of Houston, Master of Science (MS), Applied Geophysics, Houston, TX

PROFESSIONAL TRAINING AND CERTIFICATIONS

- Applications of Borehole Seismic for Anisotropy & Attenuation measurements to improve seismic imaging
- Drilling and Evaluation program development, execution, and contingency planning
- Proficient in Petrel, Hampson-Russell, RockDoc, Reveal, Norsar and MATLAB- small application development.

Padmaker Deo

Senior Geophysicist / Geoscientist

paddydeo@tdi-bi.com, (979) 693-3446



TDI-Brooks International, Inc.

14391 S. Dowling Rd, College Station, TX 77845

Ph: (979) 693-3446 Fax: (979) 693-6389

www.tdi-bi.com

Technical Expertise includes:

- Forward Seismic Modeling & Seismic Attribute Analysis
- Well Operations, Pore-Pressure evaluation support and mitigation.
- Borehole Seismic Technology & Applications
- Sub-Salt illumination studies & integration for volumetric assessment

PUBLICATIONS AND PATENTS

- Uncertainty Analysis of Well Logging Data in Reservoir Characterization, SEG, 2008 Drilling and Production Forum
- Enhanced Hydrocarbon Production in the presence of Eccentricity based on Multi-Component Induction Data The 14th Formation Evaluation Symposium of Japan, September 2008
- Co-inventor for Intellectual Property filings related to application of rock property measurements to aid drilling and evaluation of complex wells.
 - *Apparatus and Method for Generating Formation Textural Feature Images*, Feb 2010, US 2010/0025109 A1
 - *Method and apparatus for fluid influx detection while drilling*, Sept 2010, US 7804060 B2

VOLUNTEER, MENTORING AND LEADERSHIP ACTIVITIES

- ExxonMobil Upstream Team Safety Lead, 2012-2021; Member of Inclusion and Diversity Council, 2018-2019
- Project Lead for multiple ExxonMobil led United Way Houston - Day of Caring Projects, 2010- 2019
- Mentored multiple early career geoscientists on several technical topics. Conducted inhouse workshops on borehole seismic technology applications especially in infrastructure related challenging regions.