

MICHAEL SULLIVAN

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SENIOR GEOLOGIST

Highly innovative geoscientist with 12 years of experience in deepwater exploration (~350M Opex) and onshore unconventional development (~750M Opex). Expert in 3D seismic interpretation and integrated geological modeling supporting robust prospect and reservoir characterization. Efficient and effective multi-disciplinary communicator able to drive project vision and generate value-focused business decisions.

KEY AREAS OF EXPERTISE

- Exploration/Appraisal/Development
- 3D Seismic Interpretation
- Volumetrics, Risk and Value
- Integrated Geocellular Modeling
- Petrel, DSG, Paleoscan, Kingdom
- Well Planning/FE Programs

PROFESSIONAL EXPERIENCE

ID Reservoir LLC, Houston, TX

November 2021 – Present

Principal Geologist - GOM • Permian • Illinois • Hanna (WY)

Providing asset reviews, work-over strategies, advanced 3D seismic interpretation and full prospect maturation to mid capital energy clients

- Provided subsurface exploration and development modeling, risk mitigation, and production forecasting of conventional and unconventional reservoirs
- Performed 3D seismic interpretation, volumetrics, and risking of salt diapir involved gulf coast prospects
- Prospect maturation of 16,000 acre 3D seismic creating 30+ prospect inventory and development program in Roosevelt Co, NM (Northwest Shelf, Permian)
- Led well planning, operational oversight, and post-production review of appraisal and re-entry projects (~2.5M Opex)
- Providing regular technical meetings and material for JV partners, regulatory entities, and financial groups

BHP Billiton Petroleum, Houston, TX

January 2018 – July 2021

Exploration Geologist– Trinidad and Tobago/Caribbean

Performed 3D seismic interpretations, subsurface mapping, attribute and spectral analysis for the evaluation of Plio-Pleistocene biogenic gas and Miocene thermogenic oil prospects. Served as technical lead of prospect maturations and inventory management

- Lead Geologist for the Broadside-1 Deepwater well (2020; ~120M Opex; Technical Success; Reservoir Proved)
- 3D seismic interpretation, attribute analysis, fault characterization and spectral workflows for GDE maps
- Applied structural QC methods testing validity of models to provide confidence in seismically challenged data
- Conducted prospect geometry analysis, risking and volumetrics for project economic reviews and decision making
- Experienced in integrated geocellular reservoir modelling (static), validation and testing of modeling software capabilities

BHP Billiton Petroleum, Houston, TX

March 2015 – January 2018

Development Geologist - Permian

Lead Geoscientist overseeing full-phase lateral drilling and production processes for over 25 wells, in addition to acting technical mentor to junior level geoscientist and engineering staff. Maintained geocellular models (Petrel) for detailed well planning, execution and data integration of completed lateral wells

- Constructed basin and local structural/stratigraphic maps (Petrel) for well planning and execution of 20+ lateral wells
- Planned >20,000 acres of Delaware Basin lease options for future development growth and sustainability
- Computed spectrally enhanced 3D geocellular models, frequency decompositions and voxel driven facies frameworks (GeoTeric) for depositional analyses of Guadalupian age turbidites and Permian age reservoirs
- Constructed amplitude based forward synthetic seismograms and inversion models for volumetric assessments to predict injection well performance

BHP Billiton Petroleum, Houston, TX
Production Geologist - Eagle Ford**January 2013 – March 2015**

Lead Geoscientist for multi-rig operations of ~80+ wells drilled for the development of Karnes and Dewitt County lease acreage

- Lead Geologist and planning liaison for the execution of FE data acquisition and in-depth fracture imaging programs
- Utilized formation tops and correlation ties to create local structural modeling and seismic stratigraphy model
- Facilitated core analysis for fracture efficiency in reservoir engineering and production strategy refinement
- Maintained cross-functional communication and collaboration across teams for high-quality problem solving

Baker Hughes Incorporated, Houston, TX
Geologist - Global Geoscience**January 2011 – January 2013**

Performed petrophysical processing and analysis of LWD and wireline datasets for FE programs

- Provided advanced imaging interpretations for structural, depositional and stratigraphic trends
- Experienced in Wireline/LWD tool physics, engineering technology and data quality control

ADDITIONAL RELEVANT EXPERIENCE**Geologist at Groundwater Services International, Harrisburg, PA****EDUCATION**

Master of Science, Geology, Ohio University, Athens, OH
Bachelor of Science, Geology, Bloomsburg University of Pennsylvania, Bloomsburg, PA

LICENSES

Federal Aviation Administration - 14 CFR Part 61, Private Pilot, Instrument Rated, SEL - Cert No. 3819113

PROFESSIONAL TRAINING

In-House Courses – Applied Subsurface Geological Mapping; Applied Structural Analyses; Seismic Interpretation in Exploration Domain; Play-Based Exploration; Gross Depositional Mapping; Source Rock Organofacies; Volume, Risk and Value (VRV); GOM Mock Lease Sale; Carbonate Depositional Systems

RPS Courses– Structural Geology for Petroleum Exploration (Nevada); Gulf of Mexico Petroleum Systems; Seismic Interpretation Workshop in Salt Tectonics; Clastic Diagenesis and Reservoir Quality Modeling; Unconventional Resource Evaluations; Geological Interpretation of Well Logs; Advanced Pore Pressure Prediction; Petroleum Economics and Risk Analysis; Extensional Fault Systems (Paradox Basin)

Operational Safety- Basic Offshore Safety Induction and Emergency Training (Offshore Helicopter Egress)

COMPETENCIES**Core**

Development • International Operations • Exploration • Appraisal • Project Management • Geocellular Modeling • Production Strategies • 3D Seismic Interpretation • QI Geophysical Methods • Unconventionals • Deepwater • Oil and Gas • Risk and Volumetrics • Risk Management • Data Analysis

Software and Instrumentation

Interpretation/Modeling – GeoTeric, DecisionSpace (DSG), Petrel, Paleoscan, SMT

Structural Analysis - MOVE (Midland Valley)

Petrophysics - Techlog, Recall

Geospatial – Arc GIS, ESRI Tools, QGIS

Volumetrics/Risk/Data Science/Analytics – GeoX, Enverus, Spotfire

Laboratory– Q-Mass Spectrometry, SEM, XRD