

SIJUADE SAMUEL ONABAO

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CAREER SUMMARY

Experienced Petroleum Geoscientist with a good blend of risk analysis skill who specializes in unconventional basin projects and other challenging resource extraction environments. I possess excellent analytical and communication skills demonstrated by 6-plus years of energy industry experience. I also leverage technical knowledge and teamwork skills to proffer solutions to complex problems.

EDUCATION

Glasgow Caledonian University, London, UK

August 2021

Master of Science in Risk Management

Course Modules: *Risk Analysis and Modeling, Ethics, Governance and Responsible Leadership, Risk and Organizational Resilience*

Obafemi Awolowo University, Ile-Ife, Nigeria

September 2015

Master of Science in Petroleum Geoscience. CGPA: Merit Pass (63B)

Course Modules: *Structure and Stratigraphy of Sedimentary basins, Reservoir Characterization and Basin Analysis, Sedimentology of Petroleum Systems & Reservoir Modeling, Geostatistics, Formation Evaluation and Petrophysics,*

Olabisi Onabanjo University, Ago Iwoye, Nigeria

August 2010

Bachelor of Science in Geology. CGPA: 3.13/5.0

Course Modules: *Map Interpretation, Crystallography and Mineralogy, Structural Geology, Petrology.*

RESEARCH

- Ethical debate in petroleum industry: its impacts on employee performance (2021) (Msc Thesis)
- Hydrocarbon Resource Evaluation of Field “Z”, Offshore Niger Delta (2015) (Msc Thesis)
- Influence of Sub-grade soils on Road Pavement Performance (2010) (BSc Thesis)

PROFESSIONAL EXPERIENCE

Glasgow Caledonian University, UK

Jan. 2020- Aug. 2021

Risk Analyst

Project Involvement: GCU Rail Scheme Project

Key Responsibilities:

- Extracted precise data from database to research projects.
- Used tornado diagram to reveal massive uncertainty due to a poorly understood input.
- Analysed the potential impact of risk events on the project using sensitivity analysis and determined which risk event had the greatest potential for impact.
- Reviewed the risk exposure using Quantitative Cost Risk Analysis (QCRA) and estimated a contingency figure for the project.
- Predicted an acceptable degree of expense contingency and estimate the remainder of the project to affirm that the budgetary allocation will not be exceeded
- Monitoring financial trends and applying those trends to risk management.

Lead Petrophysicist

Project Involvement: Integrated Reservoir Studies of Krakama and Orubiri Fields, OML 18, Niger Delta Basin Surface water identification and forecasting tool for stakeholders to monitor stock ponds.

Key Responsibilities:

- Reviewed the existing FDP and performed QC of available data sets.
- Attempted detailed multi-well logs-based structural and stratigraphic correlation and Interpretation on 27 wells.
- Conducted all tasks related to petrophysical characterization using a combination of data sources including well logs, cores, pressure data and geologic analogues.
- Conducted regional petrophysical studies and made recommendations to the reservoir engineers.
- Responsible for cased-hole logs integration for well integrity management and provided informed advice to clients on best decisions
- Performed uncertainty analysis of porosity, water saturation and net/gross.
- Integrated all data sets into consistent, verifiable petrophysical models for incorporation into static and dynamic reservoir models.
- Evaluated fluid types and fluid contacts
- Generated sensitivity plots to determine low, base, and high case cut-offs for reservoir averages.
- Created petrophysical reservoir summaries sorted by zones.
- Built Saturation Height Models and derived best-fitting functions that closely simulated log-derived water saturation for individual reservoirs.
- Built a sequence stratigraphic framework for the Field using regional data from which well correlation was performed.
- Defined key reservoir boundaries and flow units, correlated them, and populated them with reservoir properties in a manner that is consistent with the depositional environment.
- Built 3D geological models for selected key reservoirs incorporating reservoir rock typing, structural, seismic, and performances uncertainty analyses.
- Generated 3D Facies and Petrophysical models for the key reservoirs.
- Determined the hydrocarbon volumes in place for all reservoirs with associated uncertainty range.
- Liaised closely with other development disciplines to ensure that their required inputs are of good quality.
- Provided support to reservoir engineers in guiding them through their simulation studies.
- Communicated petrophysical results to teams via presentations and reports.

Lead Petrophysicist

Project Involvement: Adanga South OML 123 Development Studies

Key Responsibilities:

- Reviewed the existing FDP and QC'ed the available data sets.
- Attempted a detailed multi-well logs-based structural and stratigraphic correlation and Interpretation on 57 wells.
- Defined facies using logs and geological descriptions
- Computed petrophysical parameters such as shale volume, total and effective porosity, water saturation, net pay, and net to gross as input for static reservoir modelling.
- QC'ed pressure data and derived fluid contacts using RFT and logs.
- Developed verifiable petrophysical models for incorporation into static and dynamic reservoir models for volumetric prediction and development planning.

- Led and participated in multidisciplinary team.
- Created petrophysical reservoir summaries sorted by zones.
- Communicated petrophysical results to teams via presentations and reports.
- Presented a comprehensive report of the analysis.

Dharmattan Nigeria Limited, Lagos State, Nigeria
Geoscientist

July 2016 – February 2019

Project Involvement:

- 1) Seismic-Based Sub-Regional Seismic Transect & Sequence Stratigraphic Framework Development of OML 49, 90 and 95 (October 2017- February 2019)

Key Responsibilities:

- Interpreted and analysed sub-regional seismic data.
- Mapped key stratigraphically significant surfaces and features.
- Performed seismic attributes generation and extraction to understand the depositional history.
- Defined opportunity (prospective) areas for further evaluations.
- Quantified the risks and uncertainties associated with each opportunity (leads and prospects) identified.
- Well logs-based correlation and interpretation.
- Provided and developed chronostratigraphic charts and facies models of the correlated well sections.
- Carried out detailed sequence stratigraphic analysis on the wells.
- Carried out a detailed chronostratigraphic correlation of the sequences across the wells, fields and major fault blocks.

Project Involvement:

- 2) Integrated Reservoir Studies and FDP of OML 55 Robertkiri & Idama Fields, Niger Delta Basin

September 2017- February 2019

Key Responsibilities:

- Provided quality assurance and formation analysis support for district operations at well site and in office
- Performed curve editing and generated pseudo curves to fill in missing data.
- Performed detailed multi-well structural and stratigraphic correlation and Interpretation.
- Performed lithology classification and Inferred Environment of Deposition (EOD).
- Identified zones and defined petrophysical cut-offs.
- Quantitative porosity, permeability and saturation evaluation, and determination of associated uncertainty which were used as input for resource evaluation and Static reservoir modelling.
- Integrated core and log-derived permeabilities.
- Built sensitivity plots to determine Low, Base and High case cut-offs for reservoir averages
- Performed capillary pressure modelling and build saturation height models to extract functions into static models.
- QC'ed pressure data and derived fluid contacts using RFT and logs
- Provided petrophysical input and support to multi-disciplinary teams
- Provided mentoring to entry-level geoscientists on log analysis techniques and in the use of computer log analysis software.
- Reviewed and interpreted seismic data, including horizon correlation, and constructed time and depth surfaces.
- Carried out modelling studies for key reservoirs (including 3-D geocellular and reservoir property modelling) to produce a representative and reliable static reservoir model.
- Generated 3D Facies and Petrophysical models for the two key reservoirs.
- Identified all possible opportunities for all fields.
- Performed prospect maturation and generated property maps.

- Developed, directed, and participated in geological reservoir studies aimed at constructing and improving geological models for the selected key reservoirs.
- Generated 3D Facies and Petrophysical models for the two key reservoirs.
- Quantified the resource potential, set strategic direction, and delivered business objectives.
- Assisted the geological operations team in well planning; evaluate well results and compare them with the existing reservoir models.
- Presented a comprehensive report of the analysis.

Project Involvement:

3) Integrated Reservoir Studies of Azuzuma field, OML 63, Niger Delta Basin.

December 2016 – April 2017

Key Responsibilities

- Validated all representative data for the model.
- Utilized interdisciplinary data to build 3D geological models for key reservoirs incorporating reservoir rock typing, structural, seismic, and performances uncertainty analyses.
- Built 3D facies and petrophysical models for key reservoirs.
- Estimated the deterministic and probabilistic STOIP and Reserves.
- Evaluated geological uncertainties in the subsurface by defining and ranking geological scenarios.
- Proposed a development well location for optimal drainage.
- Provided final static models to the reservoir engineering team and worked with them to ensure simulation is achieved.

Project Involvement:

4) Tebidaba field OML 63 Field Evaluation

July 2016 – February 2017

Key Responsibilities

- Data Management (capture, mining, and storage)/ Data Quality Control -Compilation and review, log digitization, loading and inventory, log editing –despiking, splicing, depth matching and log normalization)
- Reviewed and quality checked the previous G&G reports.
- Carried out facies definition (electro-facies) using logs and geological facies description.
- Performed detailed stratigraphic well correlation.
- Established the fluid contacts using the formation pressure data and log data.
- Identified zones of interest and defined petrophysical cutoffs.
- Generated synthetic logs using neural network technique
- Computed Petrophysical parameters such as shale volume, total and effective porosity, water saturation, net pay and net to gross as input for static reservoir Modelling.
- Developed poro-perm transforms to predict permeability
- Defined post-Production fluid contact movements/sweep pattern using RST/PLT data to delineate potential bypassed zones.
- Performed Saturation Height Modeling by incorporating capillary pressure data using different methods including the Lambda, Brooks-Corey equations
- Reviewed and quality checked the previous G&G reports.
- Reviewed subsurface data quality for input into the static reservoir model and indicated where data need to be revisited or reinterpreted.
- Performed detailed stratigraphic well correlation.
- Built 3D structural models and 3D grid for the selected reservoirs.
- Built 3D Facies and Petrophysical models for the selected key reservoirs.
- Estimated the deterministic and probabilistic STOIP and Reserves.
- Updated the reservoir model based on new geological information to optimize well locations to combine maximum ultimate hydrocarbon recovery and accelerated production.

- Provided uncertainty analysis through model scenarios for development and volumetric purposes.
- Supported the reservoir engineering team by providing the grids needed for integration into the Eclipse simulation models.
- Proposed a development well location for optimal drainage.
- Supported the project team with the delivery of the project.
- Coordinated the project delivery on a weekly basis.

Training Support

Key Responsibilities

- Assisted in the training of postgraduate and undergraduate trainees/interns, and proficiencies in the use of G&G software for research and knowledge purposes.
- Assisted in supervising and monitoring the progress in individual projects.

Halliburton Energy Services, Lagos State, Nigeria

October 2015 – February 2016

Trainee Geoscientist

Project Involvement: 3D Seismic Interpretation Chad Basin

Key Responsibilities

- Generated top structure maps for the key hydrocarbon bearing reservoirs.
- Correlated and displayed the wells in structural and stratigraphic sections.
- Carried out prospect identification and evaluation for a prospect.
- Extracted seismic attributes for reservoir properties distribution.
- Time-depth conversion.
- Computed STOIIP and reserves estimates for the hydrocarbon bearing reservoirs.

Dharmattan Nigeria Limited, Lagos State, Nigeria

December 2013- June 2014

Trainee Geologist

Project Involvement: Resource evaluation of Western Niger Delta field, Niger Delta

Key Responsibilities

- Mapped key horizons, generated synthetic seismograms, and performed seismic-to-well ties.
- Performed detailed structural and stratigraphic well correlation.
- Identified Direct Hydrocarbon Indicators (DHIs).
- Inferred the environment of deposition.
- Carried out prospect identification and evaluation.
- Generated top structure maps for the key hydrocarbon-bearing reservoirs.
- Carried out petrophysical evaluation of wells of interest.
- Estimated probabilistic volumetrics for the prospects.

SKILLS & AREAS OF TECHNICAL EXPERTISE

- Advanced understanding and fair use of SLB Petrel®, SLB Techlog®, Landmark DecisionSpace®, Geographix®, DGB OpendTect®, Trap Tester T7, Didger tool, and Neural Suites.
- Proficient in the use of MS Office applications.

PERSONAL SKILLS

- Strong analytical problem-solving ability
- Excellent interpersonal communication and organizational skills
- Strong leadership and team-playing capability
- Self-motivation and resilience

TRAINING, CONTINUING PROFESSIONAL DEVELOPMENT & CERTIFICATION

• Badleys Geoscience Ltd. (UK) - Fault Seal Analysis using Trap Tester	October 2018
• Dharmattan Nigeria Limited - Static Reservoir Modeling	March 2016 – July 2016
• Danvic Petroleum- Advanced Seismic Interpretation using OpendTect	July 2015
• Danvic Petroleum- Basic Petrophysics (Openhole) using Geolog Suite	July 2015
• Dharmattan Nigeria Ltd.- Earth science Training for Oil and Gas Professionals	Sept 2013 – May 2014
• Safeguard Resources & Tech Ltd- General HSE Certification	July 2012
• Project People Ltd- Prince 2 Certification	August 2009

PROFESSIONAL AFFILIATIONS

- Nigerian Association of Petroleum Explorationists (NAPE)
- American Association of Petroleum Geologists (AAPG)
- Society of Exploration Geophysics (SEG)
- Airmic