

Consulting for the Energy Industry
Field Development Project Experience

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Syntillica Experience Executive Summary

Syntillica is an Energy consultancy that serves the needs of our clients globally. Syntillica was designed to provide the key value proposition of experienced consulting support across a range of technical disciplines. Having access to a world-wide network of expertise allows Syntillica to efficiently and effectively provide the right skills at the right time.

Syntillica has accrued an enviable Group of consultants with average experience of approximately 25 years each which translates to 3500+ years of experience. Naturally the experience records of the consultants is far longer than Syntillica has been operating so Upstream project examples have been provided from both. While there are thousands of previous Upstream projects to choose from for examples some from the Syntillica Group have been chosen from Field development from around the world.

Finally, some overview graphical breakdowns of the Syntillica Group are provided to show expertise by technical discipline, by years of experience within discipline, by qualification, by upstream service type and by geographical experience. We hope you find this beneficial.



Subsurface Manager

ERP0002

- * Genel Kurdistan. Field development work on Miran and Taq Taq fields. Building of models for natural fracture systems and drilling plans.
- * LGO Energy (Goudron field). 1 year field development work for onshore Trinidad.
- * Serept (Ashtart field, Algeria). Field development work to build Static model.
- * Cepsa (Block development in UAE). Design FDP for three blocks in UAE.

Technical Project Manager

ERP0005

- * Primarily focused on the delivery of multidisciplinary projects to the regional market through active project management. Developing efficient workflows to assist in asset evaluation and optimization with special focus on marginal field developments
- * Full FDP for significant heavy oil field (Middle East)

Commercial Consultant

ERP0006

* Delivered the interdisciplinary risk evaluation and mitigation programme for a consortium application for an Algerian 27 oil and gas field development and gas-to-liquids project.

Pipeline Consultant

ERP0009

- * Projects have been on oil and gas field developments, oil and gas trunk lines, onshore sections of offshore pipelines, landfalls and interfaces and pipeline facility design including pump and compressor stations and GOSPs
- * Allseas / Shell Ireland (SEPIL): Project Engineer responsible for detail design of landfall and onshore pipeline (20? diam, 9 km long) for the Corrib Field development. Work included process studies, detail routing and alignment sheet production, crossing details, QRA, mechanical design, stress analysis, CP and site investigations.
- * BHP Petroleum: Lead Engineer for Offsite facilities on the ROD field development, Algeria within a large multi-disciplinary FEED team for the entire development including the main processing plant.

Petroleum Engineering Consultant

ERP0010

- * Project management and supervision of field studies and field development planning activities.
- * Lecturing in reservoir and petroleum engineering methodologies, oil, gas and condensate gas reservoir appraisal and development methods, integrated gas field development planning and modeling, PVT analysis methods.
- * Appraisal and development planning of many international oil, gas and condensate gas fields, incorporating techniques from simple analytic techniques, including well-test analysis through to

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sophisticated simulation models and risk/economic analysis. Working either as 'one-man engineering team' or as a member of major integrated development studies teams. Expertise covers onshore and offshore fields, green field FDPs, brown field rehabilitation, IOR, EOR, horizontal wells/multi-lateral wells, conventional and unconventional oil and gas.

- * Working internationally on a range of short- and long-term technical and commercial projects in Qatar, Australia, New Zealand, Mauritania, Equatorial Guinea, Mozambique, China, Denmark, Indonesia, Singapore, Malaysia, Kazakhstan, Egypt, Cameroon, Argentina, Morocco, UK, Thailand, Vietnam, Germany, Algeria, etc. Performing: studies, FDP/FFR/IOR/EOR, rehabilitation, reserves, auditing, reviewing, exploration screening, M&A/NV/NBD, scouting, operations, reservoir management, lab studies, business operations.
- * Acquisitions, data-rooms, FDP, conceptual commercialisation for many types and sizes of oil and gas assets in various stages of maturity worldwide.
- * FDPs/ADPs: All field types, oil/gas/heavy oil/condensate, all depositional environments, onshore/offshore.
- * All types of developments: depletion, waterflood, gas injection, gas recycling, EOR (miscible, immiscible, polymer/ASP,thermal, lo-sal), oil-rims, tight gas, multi-field gas/oil gathering, infill/workover rehabilitation, horizontals/multi-laterals, fraced wells, conceptual FDP.
- * Peer reviewing; mentoring; lecturing (FDP, simulation, ResEng, EOR, PVT, SCAL, PTA, DCA).

Petroleum Engineering Consultant

ERP0011

- * Petroleum Engineer with 15 years work experience with operators and service companies in Middle East, Venezuela, and Norwegian Continental Shelf (NCS), including field development planning (onshore, offshore), green field quantification study, mature fields optimization, reservoir simulation, reserve evaluation (PRMS, CPR), surveillance data analysis, managing multi discipline team, APA and Farming, DG, planning data acquisition and Peer review.
- * Robust dynamic modeling (coupled with Geo-mechanics model) for Valhall chalk field achieving improvements to current workflows address reservoir complexity, optimizing field development activities (water injection, gas lift, well intervention), Network and process modeling to improve reservoir management and budgeting
- * Quantification study and Reservoir simulations to evaluate cold and thermal production efficiency and preparing field development plan for Ayacucho heavy oil blocks (Venezuela)

Reservoir Engineering Consultant

ERP0013

* Engaged part-time by CSL, operator of the Rough gas field, which is in blowdown mode to assist in technical assurance of several subsurface project scopes provided by different consultancies. This encompassed a formal reserves and resources audit, an evaluation of incremental reserves opportunities to ensure MER from Rough, also a detailed review of a new integrated production model to allow detailed forecasting under different compression scenarios. The different

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elements underpin an FDP Addendum where I collated and described them in the subsurface section, later presenting the work to the OGA.

* Member of team aimed at accelerating FDP approval for two offshore gas fields acquired in 2014; regular liaison with consultancies, management; peer reviews; sign-off of model/ profiles.

Geology Consultant

ERP0016

- * Field development Plan: 3D static reservoir model including seismic reservoir characterisation.
- * Field development Plan: preliminary 3D static reservoir modelling and participated in a well planning group responsible for preparing a geological well prognosis report and trajectory forecast
- * Field development Plan: preliminary 3D static reservoir modelling and reserve estimation
- * Field development Plan Phases II and III: 3D static reservoir modelling and uncertainty analysis
- * Field development Plan: 3D static reservoir modelling using seismic inverted data, quantification of reservoir risk and uncertainty analysis, well planning, reservoir zonation and well log correlation, update of static model with new received data, and well control using LWD logs
- * Full Field Study and FDP Preparation: 3D static reservoir modelling and 3D discrete fracture modelling.
- * Full Field Study and FDP Preparation: 3D static reservoir modelling using seismic inversion data, fracture study and uncertainty analysis
- * North Dome Phase 15-16. FDP preparation, well control and model update: responsible for updating the geological model using seismic inversion data, well planning of Phases 15 & 16 (2 appraisal wells and 20 deviated wells), well control using LWD logs, and uncertainty analysis of the geological model
- * Full Field Study and FDP Preparation: 3D static reservoir modelling using seismic inverted data, 3D fracture characterisation and modelling, permeability prediction, well planning, quantification of reservoir risk and uncertainty analysis, reservoir zonation and well log correlation.
- * Field Study and FDP Preparation: 3D static reservoir modelling using seismic inverted data.
- * Full Field Study and FDP Preparation: data management & 3D static reservoir modelling, quantification of reservoir risk and uncertainty analysis and contributed to rock typing using MRGC method

Commercial Consultant

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ERP0017

* Studies: Specialist and integrated field development and reservoir modelling studies, simulations and reviews both exploration and production based where employed broad experience allied to a precise scientific approach as team member, leader and project manager.

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* Terrigenous clastic reservoir simulation modelling (Eclipse), Southern England; Triassic reservoir geology, reservoir description, model construction for simulation studies (Eclipse), Irish Sea; geological modelling for reservoir simulation studies (WorkBench) and reserves estimates in the Celtic Sea basin; Carboniferous gas field development reservoir simulation studies (Eclipse), southern North Sea

Geology Consultant

ERP0018

- * Field development Plan for Ratawi in Iraq: 3D full Static model carried out in RMS (Yamama, Mishrif, Nahr Umr and Mauddud formations)
- * Field development Plan for Ruby in the northeast of the Cuu Long basin, Vietnam: 3D static model of MI10 interval performed in Petrel.

Geology Consultant

ERR0019

- * Oil & Gas Development and Exploration. Full delivery of hydrocarbon field development plan including appraisal and development well targets. Participation to petroleum system evaluation, ranking of plays, prospects generation and new exploration well targets.
- * Reservoir Engineering. RCAL and SCAL. Decline curves analysis, well flow performance, pressures build-up and rft interpretation. History matching, forecast and field development plan. Streamline flow simulation using multi-realisations tool to calculate flow-based reserves ranking and related risks.
- * Performed history matching, sensitivity studies and production forecasts to advise on new well recommendations and field development plans for small producing assets including depleted reservoirs needing enhanced oil recovery.
- * Cameroon Performed history matching and production forecast on Kribi, a sandstone onshore oil field of the Douala basin. Proposed a field development plan including a water injector to maintain the pressure support in a high depletion context.
- * Gabon. Performed history matching and production forecast on Turnix, a salt piercement steeply dipping flanks offshore sandstone field. A major optimisation of the hydrocarbon initially in place evaluation was obtained to accurately match the depletion and secondary gas cap production thanks to an initial quick-look flow simulation. The full dynamic study allowed to provide a field development plan including new appraisal production wells.
- * Colombia. Performed history matching and production forecast on Trinidad, a clastic onshore oil field in the Llanos basin. Hydrodynamic context showing an infinite aquifer was providing high pressure support with high water cut. Proposed a field development plan including new infill producing and water disposal wells.

Borehole Consultant

ERP0020

* Lead Geologist on FDP for Petronas and built a geological model to reassess an aging field.

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Geology Consultant

ERP0021

- * I work with subsurface teams adding value to projects by integrating static and dynamic information into fit-for-purpose geological and simulation models, enabling managers to make informed practicable field development decisions. I work across clastic, carbonate and fractured reservoirs.
- * Presented subsurface analyses to senior management and defended interpretations during governmental and JV partner meetings. By recommending technical objectives and workplans on behalf of all stakeholders, the parties aligned to a unified field development strategy.
- * Influenced senior management to adapt an existing field development strategy to encompass reservoir monitoring. By analysing reservoir pressure, we were able to increase production from existing wells and define the target location of new wells. Monthly production targets were successfully achieved year on year.

Maximising value of subsurface data by building fit-for-purpose reservoir models to enable screening of field development scenarios and providing clear guidance to senior management to enable decision making

Generated staged field development plan detailing aggressive production ramp up from 15k to 100k bopd for one of the largest super giant oilfields discovered in the last 50 years

Geology Management Consultant

ERP0024

- * Highly experienced in Exploration and Operations Management, Field development, Petroleum Engineering, Drilling, and Production with extensive expertise gained over 30 years in various organisations across the world. Acts as the interface for clients, locals, stakeholders, NGOs, and regulatory bodies by applying an in-depth knowledge and experience in local and regional standards, requirements and cultural sensitivities. Devises strategic development plans, provides technical and commercial support, and manages operations from exploration to completion. Prioritises HSE and QA requirements during all program stages. Seeking a rewarding role in a complementary E&P-related organization.
- * Manages the full project life cycle starting from initial exploration to field development and exploitation
- * Project lead for 4 Oil field developments in Nigeria and Oman, and a contributor to many others

Geology Consultant

ERP0025

- * Project manager. Stratigraphic analysis and depositional modelling of Nahr Umr reservoir; well planning and FDP.
- * Assisted in the preparation of FDP documents for assets in Egypt and Russia

Geology Consultant ERP0028

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* Trinity Exploration & Production Ltd: Trintes field development, including preparation for future drilling. Operational support of ongoing drilling program (drilled 4 sidetrack development wells and 1 exploration well within a year). Further supported the Galeota Block appraisal by reviewing undeveloped discoveries and near field exploration opportunities including prospect generation and maturation with geophysicists, carried out volume estimates and risk analysis. The project was based in house at the client office for a period of 6 months.

Geology Consultant

ERP0029

- * 40+ years of international oil industry experience with oil companies and service providers as a geoscientist, project manager, advisor and teacher with extensive experience in Asia, the Middle East, Continental Europe and the North Sea. Expert industry advisor and proven technical project manager with detailed, hands-on experience across the value chain in exploration uncertainty, risk reduction and field development streamlining.
- * Successful prospect generator, asset team manager, advisor on data & project QC, interpretation and modeling, including borehole and 3D modeling techniques. Proven oil finder, mentor, communicator, teacher, reservoir modeler and reservoir characterization technical business developer.
- * Apache Forties Field FDP: 18-month program working together with the Apache Forties subsurface and engineering team. Project Management and subsurface lead of 60 SLB experts. Full field review, re- evaluation & model rebuild significantly increased reserves, with FDP justification for an additional platform and continued development of the field.

Geophysics Consultant

ERP0030

* Senior Geophysicist involved in oil and gas field development surveys specialised in drill rig, platform, pipeline and communications/power cable installation and monitoring.

Geological Consultant

ERP0031

- * An Exploration/Development Geologist and Team Leader with Project Manager experience and a career in several mid-sized, independent, oil & gas operating companies before joining Lloyd's Register (LR), (Phillips Petroleum, Nimir Petroleum, Kerr McGee Oil and Gas, Maersk Oil and Premier Oil). Focused on exploration and development projects worldwide with direct experience in several world class geological provinces. Experience includes projects in the UK, Ireland, Norway, West, Central and North Africa, W. Kazakhstan, Siberia, Mexico, Brazil and the UAE, ranging from play analysis to exploration, appraisal, field developments and redevelopments.
- * Risk and resource assessments, core logging, static modelling (PETREL), well and field development plans for a multi-stacked, carbonate field in Abu Dhabi

Geophysical Consultant

ERP0032

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- * Seismic interpreter: field development to regional exploration and prospect specific, implementing geological models and concepts and geophysical techniques, data, and discipline integrator.
- * Geological modeller: field development planning and infill well drilling campaigns.
- * Canada, Zama basin field development geophysics; regional andpool? specific interpretations, infill development drilling & well planning 6 well drilling campaign, with successful execution
- * Tayyani East and Omar North- East fields: Team Leader and seismic interpreter for field development planning
- * Vankor field: Initial field development plan, geophysical mapping and geological property modelling in Petrel, support and mentoring of JV Russian staff.
- * North Sea (UK): North-West Hutton field development plan (with Amoco)
- * 2014-2016: Canada Zama basin field development study 6 development wells drilled (3D seismic)
- * 2006-2007: Syria Omar North East field development plan technical studies
- * 2006: Syria Ash Shola field development plan
- * 2005-2006: Syria Tayyani East field development plan; two successful development wells drilled post study
- * 2005: Russia Vankor field development plan
- * 2003-2004: Russia Numerous field development plans, geological modelling and well proposals and geological support to over 30 development wells on various fields including, Aganskoye, Vatinskoye, Megionskoye, Mykhpaiskoye, Severo-Pokurskoye, Yuzhno-Aganskoye, Severo-Ostrovnoye, Novo-Pokurskoye, Lokosovskoye, Tailakovskoye, Achimovskoye, Severo-Orekhovskoye, Arigolskoye, Zapadno-Asomkinskoye
- * 2002: Gabon field development / optimization for M?Boumba, N?Tchengue, and Port Gentil Sud Marin fields successful horizontal development well drilled on M?Boumba post study
- * 2001: Austria Gaiselberg field development 3D seismic interpretation & geological modelling
- * 2001: Romania Laslau Mare field development 3D seismic interpretation & 3D geological modelling
- * 1998: UK North Sea North West Hutton field development plan (Amoco-SLB Alliance)
- * Shell: Achieved two successful development wells drilled post FDP on Tayyani East field, Syria.
- * FDP of Gaiselberg field for RAG (Austria): 3D seismic interpretations and geological modelling

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* FDPs of Pangenni & Laslua Mare field (Romania): 3D seismic interpretations and geological modelling

Geomechanics Consultant

ERP0035

* Review and analysis of relative permeability data in support of several integrated field development projects

Geomechanics Consultant

ERP0040

- * Contributed to the success of numerous field developments, notably: Sakhalin Energy Investment Company on the Sakhalin Phase II development and member of an integrated subsurface design team for the Lunskoye Field development, addressing the design of the big bore gas wells.
- * Secondment to BP America to provide technical support to BP Colombia's Cusiana Field development, assess wellbore stability issues in GoM (including drilling through salts), and Prudhoe Bay.

Reservoir Engineering Consultant

ERP0041

- * Field development strategy, optimization of field development solutions, preparation of presentations and project documents.
- * Analysis and systematization of initial field data, creation of a multivariate reservoir model. Integrated reservoir-surfacenetwork modeling (calculation of various scenarios for the preparation and transportation of oil, gas and condensate using both existing infrastructure, considering production profiles of neighboring fields, and creating a new one). PVT-modeling (the project is characterized by a significant, more than 1 km, height of the hydrocarbon column with variation of gas content, condensate content and other properties of oil and gas with depth SPE-187861-RU, SPE Conference Paper 2017). Estimated hydrocarbon production profiles based on the material balance method (calculation of various options and development strategies based on the reserves obtained in previous works). Development of a field development strategy (determination of the optimal number of platforms, wells and their design, production technology, comparison of gas cap development strategies, oil rim only and joint development under uncertainty conditions). Well construction and completion design, preventing condensate build-up in the well bore. Modeling of paraffin formation in wells and pipelines. Fluid flow modeling training courses based on the completed project. Reporting in two languages.
- * Field development analysis, creation and monitoring of the sector models of BV19-22, YuV1 formations, Vatinskoe field (> 200 wells).
- * Consulting services for field development monitoring "LUKOIL Western Siberia" "Tevlinsko-Russkinskoye field

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- * Field development analysis, creation of sector models, recommendations for drilling and sidetrack drilling targets, training of customer representatives for hydrodynamic modeling in the Tempest MORE software.
- * Calculation of field development indicators of the Emelyanovskoye oil field

Geophysics Consultant

ERP0047

- * Kuwait Energy Corp Field development Planning (FDP) for Area-A Exploration, Onshore Gulf of Suez Basin, Egypt. Provide East Yusr Field 3D seismic interpretation at Top Rudeis Fm for reserves estimate. Provide oversight and support to 2/3D seismic mapping for the Chikshina Field, Central Timan-Pechora Basin, within Northern Russia.
- * Conduct specialist structural evaluation studies including palinspastic restoration and fracture characterisation. Developed geophysical workflows to provide new insights into understanding geological risk and uncertainty, e.g., fault seal analysis in field development studies. Long term secondment w/Maersk Oil & Gas in Copenhagen within license round group emphasizing hydrocarbon migration and trapping mechanisms within Chalk reservoirs.
- * 2D seismic field development and reserves review for NW Java Sea / B & E Fields. Map and assess Baturaja and Parigi Fm reefal carbonategas? plays. Mentor and assist junior staff in utilizing exploration technology and techniques of prospect generation.
- * Seismic interpretation and reserves audit for various marine area exploration projects. Karan Field development review & reserves assessment.
- * Kuwait Energy Corp Field development Planning (FDP) for Area-A Exploration, Onshore Gulf of Suez Basin, Egypt. Provide East Yusr Field 3D seismic interpretation at Top Rudeis Fm for reserves estimate. Provide oversight and support to 2/3D seismic mapping for the Chikshina Field, Central Timan-Pechora Basin, within Northern Russia.

Geohazard Consultant

ERP0051

* Field development

* Geohazard analysis using SMT Kingdom software and in-house high resolution seismic data and client supplied integrated 2D, 3D and OBC data. 2001-2004 worked exclusively on Ranger Oil/CNR Baobab Development project, offshore Ivory Coast. This included a regional study on slope stability and interlinked infield developments with considerable integration of geophysics, geotechnical, geochemical and biostratigraphical data. During 2005 (and later in 2008), I was heavily involved in the offshore and subsequent onshore interpretation of the Block 18 WAD and Block 31NE offshore Angola surveys (BP). Contracted to RPS/BP Angola in 2004 for geohazard work.

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Geophysics Consultant

ERP0052

- * Quad 22 & 23 (CNS): Merganser / Scoter Field/Regional interpretation with seismic attributes analysis of the Forties reservoir to delineate channels and basin floor fans leading to the building of a regional geological model for Field development.
- * Assisted PETROM Romania with regional interpretation of Romania onshore Block XII Pitesti and offshore Sinoe field development study.

Geohazard Consultant

ERP0054

* BP, UKCS Site and route surveys, MV Ocean Seeker, senior geophysicist responsible for quality control and reporting for field development.

Geophysics Consultant

ERP0055

* Working on Cendor (PM304) Field development and Near Field Appraisal. My main objective was to generate prospects in the untested Late Oligocene/Early Miocene (L-I series). The study involved a detailed analysis of the tectonic evolution of the Cendor Anticline, Palaeo-geographic reconstruction, Sedimentary Deposition Fairway analysis, HC Migration scenarios and Reservoir Characterisation. 14 structural and 9 stratigraphic multi-target plays were identified using conventional 3-d seismic and 5 of these were up graded to prospect status using Attribute analyses, AVO, Inversion and Spectral Decomposition to reduce the risk associated with reservoir presence and quality. Petronas and partners drilled (2008) three deep exploration wells based on this work and discovered economic accumulations in two locations. Target was not reached in third well, due to drilling problems.

Geophysics Consultant

ERP0058

- * Specialized in Seismic Reservoir Characterization (AVO, attributes generation and analysis, forward modelling, Seismic Inversion, 4D analysis), seismic interpretation, well to seismic tie, depth conversion and velocity model building, well planning, field development plan (FDP)
- * 2012-2014: Field development on Cladhan field (turbidities sand-Taqa operator 70%) 4 wells were drilled 3D seismic interpretation input for static model and well planning, performing inhouse rock physics analysis and seismic inversion(qualitative interpretation) input static model and well planning; Following the contractors for shallow hazard Fugro&Gardline with a closer interaction with drilling department. Involved into well planning, target identification and drilling wells. Active participant in TCM?s presenting the operator work to the partners.
- * Co-author "Targeting Tern Late Life Opportunities, Devex, Aberdeen, UK, May 6, 2014, Co-author "Cladhan Field development, based on seismic identification of turbidite sands in the Kimmeridge Clay Devex, Aberdeen, UK, May 2013; ETLP- 4D Time lapse Herriot? Watt University Edinburgh.

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Petrophysics Consultant

ERP0059

* Responsible for all petrophysical matters within the North Sea business unit. Worked closely with managers, geophysicists, geologists and reservoir engineers in exploration and field development teams. Closely liaised with commercial and economic personnel when required. Represented LASMO on all Annex B submissions and was the lead negotiator on petrophysical redetermination committees. Developed novel acquisition programmes and interpretation models for problematic reservoirs and highly deviated and horizontal wellbores.

Petrophysics Consultant

ERP0060

* Petrophysical input for Field development Plans (FDP)

Petrophysics Consultant

ERP0061

- * 150+ well clastic and carbonate field development study with operations support onshore Ukraine
- * Offshore operations support for the Volund Field development, Norwegian North Sea

Geology Consultant

ERP0063

- * North Malay Basin (NMB) Field development: Review and perform model update for the Bergading gas field?s static model and planning of near field appraisal/ infill wells using seismic inversion data to target wells. Other responsibilities include identifying infill and behind casing opportunities and lead the Phase 1 team through Petronas?s milestone reviews and coordinating FDP effort. Also the field geologist in the planning and execution of an infill horizontal well in the Bergading field and geosteering of a horizontal well in the B.Kesumba field
- * Responsibilities include block MPN Congo Exploration, Azurite Field development planning in block MPS and West Africa New Ventures initiative.
- * Provided geomodelling support to the Azurite field development team during the construction of it?s Azurite Petrel static model
- * Performed development well planning for Seligi-E platform wells. Prepared pre-drill well prognosis information for field development program and post-drill Well Completion Reports/Logs.
- * FFR, FDP, FRDP studies and processes. Strong hands-on experience in 3D static modelling, 2D mapping, sequence stratigraphic correlation, prospect maturation, seismic voxel interpretation, wellsite and operation geology and well planning, exploration block assessment, deterministic and probabilistic volumetric assessment and risks and uncertainty analysis. Computer literate and confident using several industry-standard geoscience packages such as Petrel, REP and RMS. Adaptable and able to work individually or as part of a team.

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- * FDP Revision: Performed genetic facies and diagenetic facies mapping of the Thamama reservoir sequence in Al Dhafra?s Haliba field where the results were used for Reservoir Rock Type (RRT) study and RRT prediction in undrilled field areas
- * FDP Update: Performed static model building applying petrophysical group (PG) facies modelling technique for the Thamama-H reservoir, Bab field, UAE for ADCO
- * FDP: Static model update and volumetrics assessment of Kuwait Energy Iraq?s (KEC) Block 9 field in Iraq
- * FDP Update: Geological modelling of the Arab carbonate reservoirs in the Bahrain field for Mubadala/ Tatweer, Bahrain
- * FDP Update: Assigned as Kuwait Energy?s (KEC)?s project manager during the FDP update of it?s Area-A, Egypt assets
- * Assigned to the geomodelling group in ExxonMobil. Tasked with constructing geomodels for ExxonMobil?s development assets during the FDP execution phase. Worked very closely with asset geologists, geophysicists, petrophysicists and reservoir engineers during the modelling of ExxonMobil?s development fields Seligi, Tiong, Kepong, West Larut and Angsi.

Drilling Consultant ERP0067

* Contractor representative in various client strategic and well planning tasks with the emphasis on more difficult non-routine operations, high-risk wells and field development options.

Drilling Consultant

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* Ultra Short Radius Drilling Regional Manager for USRD - Asia June 2009 to Aug 2010 Staff Regional Manager SE Asia running the drilling engineering, drilling supervision, management and business development for improved and enhanced oil recovery projects and field development projects via re-entry / ultra-short radius (USR) horizontal well technology (build rates of 100-200?/100 feet).

ERP0068

Drilling Consultant ERP0069

- * Drilling Superintendent responsible for Falkland Islands exploration campaign. 5th generation harsh environment DP3 rig semi sub. Duties include tendering for all third party services including MODU and local based supply chain. Responsible for rig upgrades and commissioning,
- * Rig and equipment mobilisation/de-mobilisation. Leading a team of 9 to deliver deepwater, remote location exploration wells. Falkland Islands oil and gas activity follows UK legislation. Generated field wide BOD for subsea and TLP field development concepts with a focus on full field life cycle.

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* Heavily involved in contracting strategies for MODU for long term development drilling, well services and TLP design/build, emphasis on safety case and design criteria to work under UK legislation

Economics Consultant

ERP0074

* Accomplished Economist and Analyst with extensive expertise in evaluating energy assets for organisations worldwide, delivering accurate economic rationales for planning (debt sizing), budgeting and reserves bookings, and providing expert assistance with commercial negotiations, deals, acquisitions, carbon footprint accounting and field developments.

Economics Consultant

ERP0075

* Responsible for the generation and development of economic models for oil and gas fields for establishment of economically recoverable reserves and optimisation of field development plans.

Reservoir Engineering Consultant

ERP0076

* Strategic Management: Formulated and delivered a comprehensive engineering study probing the outlook for a mature field re-development, using IOR principles. Applied fundamentals of reservoir management to outline, materialise, and incorporate a state-of-the-art programme to advance field development.

Environmental Engineering Consultant

ERP0078

* Lead environmental engineer on Gulf keystone petroleum sour gas field development in Shaikan block / Northern Iraq / Kurdistan. These include feasibility study, Pre FEED and FEED.

Geology Management Consultant

ERP0080

* Petroleum Engineering, Aberdeen Operations: Operation and management of 22 professional staff responsible for geoscience on the Magnus, Thistle, Deveron, Don, Beatrice, Buchan and Clyde fields. This required effective integration of geoscience and reservoir engineering to enhance understanding of field behaviour and optimise field developments.

Production Technology Consultant

ERP0086

* Optimisation consultant providing technical expertise, advice and support for asset-wide production optimisation and field development planning studies throughout the whole of EPS? operation

Petroleum Engineering Consultant

ERP0087

* Multi-skilled petroleum reservoir engineer with experience of working with operators, consultancy and service companies, worked within multi-disciplinary teams of production engineers, petrophysicists and geologists. Experienced in all stages of field development from well location optimization to brown field management and well abandonment.

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Reservoir Engineering Consultant

ERP0088

- * Shaikan, Gulf Keystone Petroleum, Iraq; Numerical simulation of a naturally fractured reservoir, defining and simulating several field development scenarios.
- * Carried out a reservoir simulation and field development plan evaluation as part of a CPR (El Safwa Group)
- * Reservoir simulation and assessment of several field development schemes to improve the recovery (Petrobaltic B8 Field)

Reservoir Engineering Consultant

ERP0089

- * Over 35 years in the E&P industry; broad technical and commercial experience worldwide in reservoir/petroleum engineering and open/cased hole petrophysics. Specialise in asset evaluation, due diligence (DD), audits of in-place volumes/reserves, ensure compliance with stock exchange reporting standards, analytical well deliverability, field performance modelling, production profile generation, scoping economics, field development planning. MSc in Petroleum Engineering from Imperial College London; MBA from Cranfield School of Management. Provide training via own company and for industry providers, NExT and HOT, on data room management, rapid asset evaluation, uncertainty in resource estimates and energy project management. Perform skills competency assessments of E&P asset teams. Professional roles include having served on SPE Oil & Gas Reserves Committee, maintaining the PRMS; past Chairman of SPEE European Chapter, responsible for reserves auditor training; Fellow of Energy Institute.
- * Supervised PP study of the Amstel oil field development, Holland, helping geo-mechanics modelling of the reservoir.
- * Petrophysics & RE advisor on TagTag field development, Kurdistan.
- * Reservoir studies include IOR projects in Kazakhstan, Turkmenistan & Brazil, marginal field development in the UKCS & Libya, & exploration acreage evaluation in Brazil, Syria & Congo, plus brown field development in Latin America.
- * FDP of Bobocu gas field, Romania; too optimistic reserves due to a poorly constrained geological model.
- * Subsurface Technical Authority (Apr?15 to Jun?16) ensured quality and consistency of integrated project delivery via management and mentoring of team. Provided hands on RE/PP services and project review: red flag review of Amni?s Tubu discovery, OML52 Nigeria; update CPR of Mitra Vietnam; CPR Bongkot field, Thailand; statistical well modelling for East Java reactivation project; screening of W. Desert and Gulf of Suez assets, Egypt; FDP Goudron field, Trinidad.

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* Technical Head, Reservoir Engineering team leader for CCS commercialisation bid review for DECC. Peer reviews/studies included: red flag review of Hess Thailand?s assets; evaluated chemical EOR services in the North Sea; assessed UK shale gas acreage potential, formulated strategy for building EOR capability within company; CPRs for high CO2 gas fields in Asia-Pacific; fractured reservoir simulation of the Shaikan field, Kurdistan; EUR estimate for Bowland Shale gas play, UK; EOR screening of UKCS mature fields; waterflood optimisation of Clyde field, UKCS; reserves audit & FDP for IOR in Burgh El Arab field, Egypt; uncertainty modelling of fluvial channel sand reservoirs, offshore Malaysia; screening EOR options for Burgan B reservoir, Iran; scoping production profiles for West African deepwater prospects; assessed impact of natural fractures on Thamama A reservoir performance, Abu Dhabi; determined source of water impairing performance of hydraulically fractured wells in Siekierki field, Poland.

Reservoir Engineering Consultant

ERP0090

* PanAfrican Energy Tanzania: Songo Songo Gas Asset Reservoir management

Identified anomalies in the wells? performance, proposed alternate operating philosophy, recommended effective surveillance plan. Run material balance, improved the Simulation model history match. Constructed an IAM to allow quick sensitivities for field optimization concepts

- * OMV: Offshore Abu Dhabi Field development Concept
- * Worked with limited data to formulate a high level appraisal/development concept for various discoveries offshore Abu Dhabi
- * Independent reserves review of DEA?s Germany and Egypt assets. Review of field performance, generate a range of reserves and resources, underscore the opportunities and threats to help the buyer in decision-making and win them loan from financial institutions

Simulation, MBAL, PROSPER, GAP, Flowing Mat. Bal., DCA

* DANA: North Sea Assets reserves review: Year-end Reserves evaluation of Dana?s North sea mature assets - QC technical work, ensure reserves and resources are estimated using accepted industry standards and classified by PRMS guidelines

Decline Curve Analysis

- * Ranked the placement options and proposed the optimum well locations.
- * Serica Energy: Columbus Field development Concept: Worked with limited data, constructed dynamic simulation model, determined the optimum well positioning, well length, well geometry, well-count, and tubing size
- * BP: Sean Reserves &, Deliverability: Conducted Material Balance study to determine In-place volumes, Aquifer size and strength. Constructed IAM to analyze life of field deliverability
- * Built a full field IAM for a multi-TCF newly-developed gas field. Identified numerous system bottlenecks and recommended practical solutions, generated various re-completion workover

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opportunities. This established the basis for future field development strategy to optimize ultimate recovery - Expedited the infill drilling campaign and compression planning

Reservoir Engineering Consultant

ERP0091

- * Lead Reservoir Engineer of the Reservoir Engineering and Modeling group being responsible for all the conducted field development plans and simulation studies
- * Supervising and mentoring the field development plans and numerical simulation studies of the domestic and international assets of the company working in tight co-operation with different departments
- * Field development plan for Kurdistan field which was in appraisal phase basic reservoir engineering concept; participation in the asset team, extended well test planning, PVT data review, analysis and modeling
- * Supervising and mentoring the field development plan of the Hungarian-Croatian Zalata-Dravica field, representing the company on the technical meetings
- * Provided RE support for the Pakistani gas field development; history matching by material balance calculation and data preparation for numerical simulation

Petroleum Engineering Consultant

ERP0092

- * Eclipse simulation of large dual porosity carbonate Tunisian field, history-match 38 years of production, (2) CMG simulation of sour gascap/oilrim field (Ionian Basin, Greece), field development plan for extended well test, (3) Competent Persons Reports for North Sea assets, (4) asset valuation of Albanian opportunity, (5) due diligence report with Eclipse simulation of Vietnamese stacked sands reservoirs.
- *Sasol London: RE support for Field development Plan, onshore Mozambique underpressured gas-cap / oil-leg reservoirs, PVT analysis of different fluids, CMG simulator package.
- * BG Group Reading: reservoir engineering support for sour gas prospect in AbuDhabi, E300 support for Kazakhstan sour gas-condensate field, detailed data analysis, field development planning. Development planning for HPHT North Sea reservoirs, E300 simulation, MEPO. Simulation of coal-bed methane reservoirs.

Reservoir Engineering Consultant

ERP0093

* Appraisal study of an injectite field, of the Greater Catcher Area Field development, using complex simulation modelling and economical evaluation of the development plan (Premier Oil)

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Reservoir Engineering Consultant

ERP0094

- * Primary coordinator of the Field development Plan for Ophir?s Fortuna gas project which was submitted in March 2016 and subsequently approved by the government.
- * Providing reservoir engineering/subsurface management consulting services to the oil industry applying my significant experience in field development planning, reservoir management, reserves and A&D work.
- * Provided guidance and led the technical assurance of field development and reservoir management work completed on Ophir?s existing portfolio including the Bualuang, Kerendan and Sinphuhorm fields.
- * Responsible for reservoir management including waterflood optimisation, field development planning, budget and reserves submission. This included high grading of drilling targets through volumetric assessment, uncertainty analysis and economic review; supporting drilling during operations and post drill analysis. Responsible for ensuring effective communication with JV Partners Tullow and the EG Government.
- * Managed a newly formed team of 10 Geoscientists and Reservoir Engineers responsible for Hess?s non-operated interests in the Clair and Schiehallion fields. Seismic interpretation (incl. 4D), log/SCAL/PVT/PTA analysis and building low/mid/high static and dynamic models for development option analysis and forecasting. Field development plans were written and Hess submitted fully independent reserves for both fields for the first time. This led to better collaboration with JV partners, leading to both projects being sanctioned in 2011.
- * Reservoir Engineer responsible for Hess?s interest in the Beryl area fields. Work included representing Hess at Joint Venture Partner meetings and challenging the operator as appropriate to maximise the value of the asset. Work in support of this included reviewing new well proposals, DCA for reserves and updating the wider Beryl opportunity set for Hess?s internal Field development Plan.
- * Subsurface Manager of Ophir's operated Fortuna FLNG gas development, ensuring quality subsurface input for FEED, submission of FDP, detailed well design and economic and resource assessment. This included the development of static, dynamic and integrated production models for optimising the development plan, production forecasting and regular interaction with JV partner GEPetrol and the EG government.

Petroleum Engineering Consultant

ERP0096

- * Provided reservoir engineering input to multi-disciplinary projects, including field development planning, reservoir performance analysis and reserves estimation & auditing.
- * Test and inflow performance analysis, logging program, production forecasting, reserve reporting, infill development, hydraulic fracturing well selection, TDT,PLT,RFT&MDT analysis.

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* Evaluated the field development potential and prepared cost estimate for well servicing and operational costs.

Petroleum Engineering Consultant

ERP0097

* AZADEGAN Field development (Detail Design) - Project Specialist leader (PSL) the AZADEGAN fields is located in Southwest IRAN and comprises a number of reservoirs from which the KAZHDUMI, GADVAN, SARVAK, FAHLLIYAN.

Petroleum Engineering Consultant

ERP0098

- * Phase 12, South Pars Gas Field development,
- * Azadegan Oil Field development, I was involved in this project as process engineer, the scope of this project was related to detail design engineering of utility units.

Reservoir Engineering Consultant

ERP0099

* Classical reservoir engineering analysis: highly skilled in reservoir characterisation, fluid properties, relative permeabilities, flow in porous media, oil and gas well performance, water influx, hydrocarbon recovery mechanisms, reservoir simulation, recovery factor estimation, field appraisal, field development planning, secondary and enhanced oil recovery, reserve and resources classification and estimation, material balance, pressure transient analysis (well testing)

Reservoir Engineering Consultant

ERP0100

- * Strong technical skills in reservoir engineering with more than twenties two years of experience in the Oil and Gas E&P industry, specifically in (exploration, exploitation of mature fields, field development planning, forecast production, fluid property analysis, material balance and inflow/outflow analysis.
- * Development of reservoir dynamic simulation models (Eclipse, Black Oil) as input of the Conceptual Field development Plan (CFDP) presented to the Israel Government
- * Evaluation of exploitation opportunities, estimating reserves potential and planning field development strategies and implementing secondary recovery processes. Perform DCA and other types of analyses

Well Engineering Consultant

ERP0107

* Production technology, subsea technology, facilities and pipeline design issues and their relationship to the integrated piece which is field development.

Petroleum Geochemistry Consultant

ERP0114

* Production geologist for Hawkins field development program (field development, operations, and reservoir maintenance).

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Geophysics Consultant

ERP0117

- * Quantitative geophysicist with strong technical background in velocity modeling, seismic rock properties, pore pressure and geomechanical analysis obtained through +30 years of energy industry experience. A proven track record in applying geophysical technology to create value in exploration and field development, both onshore and in deep water.
- * Geomechanics for well bore stability and field development optimization
- * Made extensive contributions to velocity modeling, geomechanics and geohazards analysis in support of optimized field development in the Permian Delaware Basin and Eagle ford of southwest Texas
- * Provided velocity modeling for time-depth conversion/depth uncertainty analysis in support of deep water exploration and field development
- * Geographic focus in Lower Tertiary Trend of US Gulf of Mexico and Campos Basin, Brazil. Wells supported in US GOM included: Chuck (WR278-1), Jack3 (WR758-2), Cascade3 (WR249-1), Bass (KC596-1) and Kaskida West (KC291-1). In Brazil: Polvo field development wells (BMC-8), Itaipu-1A (BMC-32)

Reservoir Engineering Consultant

ERP0118

- * Lead Reservoir Engineer for a large 3 field, far offshore, gas development with onshore LNG plant Greenfield development. Involves dealing with joint venture partners, leading the RE team to deliver.multi-billion dollar grade? risked reservoir forecasts (experimental design) in the lead up to FID. Lead team of 7 experienced engineers responsible for preparing Contingent Resource statements for the three fields; preparing field development plan, reservoir management plan & appraisal strategy as well as liaising with other disciplines and senior management. My team leadership style ensures that I conduct some of the technical work myself, thus ensuring I stay current with tool skill sets such as Petrel-RE as well as the Eclipse Suite in general, and tools such as @Risk.
- * Technical Advisor for projects in India (green field regional development plans as well as brown field rejuvenation), China (high uncertainty green field development), Saudi (Heavy oil steam flood potential), Malaysia (offshore redevelopment planning), as well as several other smaller production optimization and smaller development plans. Heavily involved in EOR screening for many fields.
- * Bokor Field Redevelopment. Subsurface Manager for a joint SLB-Petronas project rejuvenating the Bokor field, offshore Borneo. Responsible for all subsurface technical work, including field development plans, well proposals, appraisal, together with partner & management liaison. Significant interaction with facility and drilling engineers both during the planning and execution phases.

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* Lecturer on Field development Planning, in particular risk assessment and uncertainty to Universiti Teknologi Petronas (sat on BSc PE curriculum board), and to Universiti Teknologi Malaysia.

Drilling Consultant

ERP0120

- * Part of a multi-discipline team bringing the Norwegian multi-national their first UK development from concept identification through to field development and abandonment. This involved Drilling and Well strategy/planning for the Mariner and Bressay heavy oil field developments in the UK sector. Responsibilities were wide ranging from field development strategy, well economics, technical design, platform location, rig selection/design to vendor management, regulatory and partner discussions/communications.
- * Leading multi-disciplined teams to design solutions for technically challenging Norwegian based subsea development projects. Plans for six field development projects were delivered over the 4 year contract totaling an estimated Drilling and Well only CAPEX budget in the region of \$1.7Bn. Projects included Oseberg D, Tune S, Njord NWF, Grane C, Astero and Peon. Also worked with several HPHT field development projects including Hejre (partner) and Victoria (potential purchase).

Reservoir Management Consultant

ERP0121

- * Previously, held roles as Vice President Engineering, Senior Reservoir Engineer,?Technical Advisor, and Group?Manager at numerous organizations including?RPS Knowledge Reservoir, Halliburton, and?CSV Holdings. Across his career, Iain has gained deep experience in oil field operations, field development, asset evaluation, economic analysis, project finance, reserves estimation and audits, well and reservoir modelling, field development planning, and the management of multi-disciplinary subsurface teams and studies.
- * Field development planning for a N Sea project for a start up company.
- * Contributed to the company?s growth through the acquisition of i3 Energy?s first asset, field development planning, the certification of reserves, fund raising and the company?s flotation on the London Stock Exchange (AIM).
- * Field development planning and exploration prospect support in Poland and Turkey. Carried out reservoir evaluation for exploration, appraisal and development phases of prospects and leads.
- * Technical advisor and mentor to a subsurface team in Suriname engaged in field redevelopment. Guided and coordinated reservoir evaluation and engineering studies, integrating study results. Provided reservoir model and volumetric assessments, including work in support of field development, well planning and reservoir management. Close liaison with geologists, geophysicists and reservoir engineers. Mentoring of client staff.

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- * Well test analysis, reservoir engineering studies, reservoir simulation, integrated sub-surface studies, field development planning.
- * Prepared and taught field development and petroleum engineering courses.
- * Advised clients on the selection of assets for acquisition. Managed the exploration geoscience, field development planning and project economic analysis.
- * Manager, EPS Aberdeen. Projects managed or participated in, include well performance modelling, gas lift evaluation, well optimization, field optimization, field evaluation, reservoir simulation, well test analysis, production log interpretation, reserves estimations field development planning and petroleum economics.

Geological Consultant

ERP0125

- * Technical author for Field development Plans and Reservoir Evaluation Reports
- * Lead technical author for key project documents: Field development Plan, Early Oil Pilot Scheme and Reservoir Evaluation Reports for Government of Kenya

Reservoir Engineering Consultant

ERP00126

- * Global experience working on FDPs/ Reservoir management plan (Oil& Gas, Non- operated & operated, Offshore& Onshore, Sandstone& Carbonate) in North-Sea, Middle East/Caspian and South-East Asia
- * Managing a team of over 30 engineers and geoscientists to assess the FDP of two non-operated offshore HPHT carbonate gas fields and two giant onshore operated carbonate oil fields in the Middle East.

Petroleum Engineering Consultant

ERP0127

- * Petroleum engineering professional with 24 years of experience across the oil and gas industry. Experienced in WRFM as well as in modelling, field development planning, well delivery, and technical assurance. Keen on developing people, introducing new technologies and continuous improvement.
- * Production Technologist in PDO Study Center responsible for PT input to Gharif North Rim Waterflood Study. I have prepared a Feasibility Report and FDP chapter with completions, SC and AL selections. Acted as liaison between PDO and TRACS' study team in Aberdeen.

Reservoir Engineering Consultant

ERP0128

24

- * Field development, export re-route projects, fields abandonments
- * Commercial & Legal: Compliance with all Clipper South agreements in place (Gas Sale Agreement, Gas Lifting Agreement, Transportation and Processing agreement, Joint Operating

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Agreement etc). Compliance and interaction with the Oil and Gas Authority on all matters including HSE permitting and consents, production consent, licensing extension and relinquishment, field development plan approval.

- * Management of projects and field development, infill drilling
- * Oil production increased in UK from 13,000 BOPD to 20,000 BOPD in 2 years through infill drilling of producers and injectors, near field developments.stimulation, wells recompletion, waterflooding implementation, & innovative solutions: LoSal, chemical water shut off, polymer and surfactant injection
- * Gas production increased by 100 MMscf/d in 5 years through infill drilling, near field development, deliquification, facilities & production facilities modification/rationalisation.
- * Reservoir engineering: Built the ECLIPSE model to support the Tao field development with wells and sensitivities on uncertainty analysis to justify field development (5 wells successfully drilled) plan viability
- * Preparation of field development plan.
- * Managing a diverse portfolio of 13 mature gas fields in the UKCS and NL, at diverse stage of field life: mid- life, end of life, decommissioning, drafting of COP documents, drafting of FDPA. The role of the asset manager for the non-operated fields is to represent and protect Field owners interest, influence and ensure asset best strategies to maximise EBITDA through Joint Venture.
- * Responsible for all OGA (UK government Oil and Gas authority) related matters: (Stewardship, TEF, Reserves, Production consents, COP, FDP write up and submissions for all UK fields)
- * Coordinate, Monitor and review all geoscience technical projects initiated in subsidiaries or in HQ for the subsidiaries. Technical approvals & recommendations (well proposals, work-overs, simulation -ECLISPE, MBAL/PROSPER/GAP). Co-ordination/generation of AFE, wells proposals, FDP.
- * Perenco JV Geoscience representative: Present Tao G&G and RE work to partner and to EGAS (Egyptian government) for approval of FDP

Geology Consultant	ERP0136	
1996 AAPG Caracas - Invited Session Chairman - Optimising Field development		
Geology Consultant	ERP0137	
* Extensive experience in comprehensive field development study/planning (both for FDP and CFDP cases) and detailed petroleum system and prospectivity analysis		

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- * Worked, as a principal field development geologist, technical team leader and peer assist and peer reviewer on construction of several large volumes of Master Development Plan (MDP) including full-field fracture models for the development of four giant highly faulted and fractured complex carbonate Gas Fields in the Persian Gulf in a major JV cooperation with Gazprom, Geogrid and PPZ companies on time and within budget.
- * As project manager and principal development geologist worked on a major reservoir study on the Mishrif reservoir in super giant West Qurna2 field in Iraq. We carried out a comprehensive study on detailed sequence stratigraphy, depositional and diagenesis evaluation using around 70 wells log data, 10 cored wells and 10 BHI log data for field development for Lukoil company
- * As project manager and principal development/exploration geologist, led the exploration potential analysis of Galeota Block and on the Trinity Field development Planning (FDP) in Trinidad
- * Extensive experience in comprehensive field development study/planning (both for FDP and CFDP cases) and detailed petroleum system and prospectivity analysis
- * Produced an exploration potential evaluation report of the area as well as three detailed CFDP reports for three stacked reservoirs discoveries in the West Rub-al-Khali basin in the western part of UAE.
- * As project manager and principal development/exploration geologist, led the exploration potential analysis of Galeota Block and on the Trinity Field development Planning (FDP) in Trinidad

Petroleum Fluids Consultant

ERP0139

- * Petroleum Fluids expert with diverse experience in the oil industry. Worked in upstream R&D and progressed to provide technical support across a wide range of exploration and production activities. He has worked as Petroleum Engineer and specialised in Reservoir Fluid behaviour and calibration of reservoir simulation models. Specialisations include reservoir contaminants, phase behaviour, petroleum migration and linking geochemical clues with PVT modelling. Projects range from miscible hydrocarbon flooding, modelling lateral H2S variation across reservoirs and quantifying the effects of petroleum migration. He has experience in simulation and PVT studies and the capture and QC of welltest data for field development.
- * Developed Integrated Asset Management projects for clients for oil and gas field developments using GAP & Mbal.
- * Value of PVT and sample QC for Field development? EAGE/SPE Europec 2013

Reservoir Engineering Consultant

ERP0140

* IPM modeling & completion design for a nearby tight carbonate field development with potential smart completion and multistage fracturing

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Reservoir Engineering Consultant

ERP0142

- * 30+ years of reservoir and production engineering experience. Acknowledged expert in PVT analysis, Carbon Capture & Storage and Primary, Secondary and Enhanced Oil Recovery (Solvent, Chemical & Thermal) using black oil, compositional and thermal simulation in numerous studies for Reservoir Development & Management. He has excellent appreciation of geological modelling issues via work with Petrel-RE, RMS & GoCad and extensive experience in well, pipe and surface network modelling.
- * Worked in many multi-disciplinary teams to developed Field development Plans (FDP) and reserves estimations for clients worldwide. He has developed and taught numerous training courses and acted as a mentor and coach to many junior engineers.
- * Todd Energy New Zealand Updated simulation model to investigate late life opportunities in reservoir with gas cap and oil rim. Worked in Todd?s office (New Plymouth, NZ) Jan-May 2017 on tight gas field (average perm ~ 1 mD) update to FDP.

Reservoir Engineer Consultant

ERP0143

- * Field development Plan conventional and unconventional
- * Immiscible / Miscible Gas Injection modelling Reservoir Engineering support for Field development Plan for IOOC (Burgan Field, offshore development). SCAL, PVT analysis and interpretation. Material balance modeling
- * Asset evaluation and Field development Planning support for KEC. Luszkoye and Chikshyna fields.
- * Field development Plan for Green Fields: MBAL to GAP
- * Field development Planning: generate forecast scenarios on Eclipse model for Egret oil green field and build IPM to link Eclipse to GAP.
- * Field development Plan: Mabrouk Field
- * Focal point for integrated subsurface studies to deliver Field development Plans on reservoirs with Waterflooding and feasibility studies on application of EOR polymer, CO2, alkaline on two major oilfields in Western Romania in low permeability basins, naturally fractured
- * FDP for Khufai Block 4; Pre-Cambrian naturally fractured tight carbonate reservoirs with variable oil quality.
- * FDP history matching and development scenarios for Messa field (AGOCO Libya)
- * FDP history matching for Sahmah field (HCF Oman)
- * Created FDP roadmaps and reviewed existing static and dynamic models as basis for company FDP?s updating

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- * FDP support for Dhiab field: from opportunity framing to DG3 with focus on uncertainty management and moddeling
- * Reservoir Engineering Advisor for Suwaihat FDP (Oman, Target/PDO).
- * FDP RE support Mabrouk field

Reservoir Engineering Consultant

ERP0144

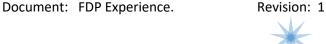
- * Conducted a lecture view to the graduate students in Sultan Qaboos University about how to develop Shrooq field from Reservoir engineering point of view and supported them in their Final-Year-Projects (Field development Plan), SQU/Muscat for 2015/2016 & 2016/2017 two academic years.
- * Provided Reservoir Engineer support to the Yibal Khuff Sudair Field development Plan study.
- * Reconstructed Saphire simulation model based on 8 Saphire wells (Model initialized, History matching updated and the model was integrated into the WDDM coupled model for full field development plan)
- * Participated in Mabrouk-South and South-West Full Field simulation model construction, initialization, history matching, prediction and FDP updating and constructed a sector model to simulate the productivity of the horizontal well completed with multi-stage hydraulic fracc versus the vertical through use simulation tools - tNavigator & e300 compositional model.
- * Barik 2014 dynamic model was fine tuned. The model was re-initialized and history matched. As results, an excellent match was achieved in GIIP between static and dynamic model and the CGR history matching was improved. The model then was utilized to re-generate the associated production profile for FDP projects and thereby the reserves updated.
- * Also the model was utilized to define Barik FDP new project of drilling 12 development infill wells
- * The integrated model for Kuather area has been utilized to optimize FDP considering the following
- * Constructed/Updated dynamic models and consequently optimized Umm Dalkh FDP to predict production rates and ultimate recoveries.

Reservoir Engineer Consultant

ERP0146

- * Full field development:
- * Build and update full field simulation models with field development planning. Coordinate with geoscientists on reservoir characterization to identify productive flow units and upscaling to optimize run time.

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- * Provide advice on field development strategies to students and young engineers.
- * Reservoir studies for field development, production optimization and boost production rate by 10 fold: Evaluate feasibility of technical propositions for field development by joint venture partners. Liason with asset team members on field development strategies and production optimization plans.

Fluid Contact Determination Tools for Carbonate Reservoir & its Impact on Field development

Asset Management Consultant

ERP0147

- * Integrated Asset Modeling (IAM) and detailed reservoir engineering modeling (CMG?s IMEX) for the new Midia Gas offshore development in the Black Sea for the needs of the Conceptual Design and FEED BoDs. Reservoir-well-pipeline network modeling, production profiles, examination of various production schemes (dry, wet, no compression, compression), risk analysis and operational envelope for a highly unconsolidated cluster of gas reservoirs. P10- P50-P90 profiles. Pipeline sizing and compressor specifications optimization (early-late life). Review of dynamic reservoir modeling (Petrel-RE) scenarios. Special Flow Assurance issues treatment (sand production, hydrate formation) and completion design selection (vertical/deviated under-reamed wells, open hole gravel pack, sand screens, etc.) for maximum PI and minimal fines production. Extensive expected sand production analysis (wellbore stability, sand retention tests -SRTs). Reserves assessment per PRMS/SEC guidelines for internal and external Auditing. Production evaluation for FID.
- * Reservoir management studies for the needs of onshore oil brownfields in the Paris basin. Production/injection allocation algorithm for mature oil fields (water cut>95%) using correlation matrices approach and log data corroborated by material balance for each zone. Producerinjector communication relationship and water injection optimization. Zonal contribution to production, recovery factor and reserves estimation. Injection efficiency and Voidage Replacement Ratio (VRR) estimation. Sector modeling for oil (low GOR) fields for potential infill drilling sites, best injector pattern (EOR techniques), reservoir management strategy and reserves update (Petrel-RE). Multiple history-matched geological realizations to reduce uncertainty on STOIP. Field development Plan (FDP) with P10-P50-P90 production forecasts and investment returns submitted to investors. Reserves assessment per SEC guidelines for internal and external Auditing. Project management and budget control.
- * Subsurface studies for the West Desert fields (Egypt, Qasr field). History match and forecast for various field development schemes (Eclipse). Pressure Transient Analysis (PTA) for gas/gas condensate fields (Saphir).
- * Flow assurance and conceptual design studies (OLGA, Pipesim). Field development analysis

for North and Black Sea fields. Marketing and promoting the group?s capabilities. Field development studies (MBAL-Prosper-GAP) and production strategy for Romanian offshore fields.

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CO2 injection modelling coupled with production network. Feasibility and conceptual pipeline studies (steady state and transient, OLGA, Pipesim).

- * Integrated reservoir-well- facilities model studies using MBAL-Prosper-GAP (North Sea fields). Optimization of gas- lifted well production (MBAL-GAP). Offshore wax and hydrate studies. Flow assurance, gas lift and field development studies (Production/ Reservoir). Network optimization of gas-lifted and pump-assisted wells (GAP).
- * Flow analysis in single pipelines and pipeline networks using PIPESIM (steady-state) for flow assurance and de-bottlenecking purposes. Well modeling for flow assurance and nodal analysis purposes. Modeling of artificially assisted production (gas lift, electrical submersible pumps). Application of artificial intelligence techniques (neural networks, genetic algorithm) for analysis of production patterns and production allocation (DECIDE). Production data management. History matching of field data and production allocation using neural network algorithms.

Production Technologist

ERP0148

- * Specialisations: uHPHT, Deep Water, Field development Strategy, Digital Technology, Patent Application & Award, Professional Software Development (Python).
- * NOC: HPHT field development (CAT1 Project > US\$5B)

Assessment of field development performance relative to FDP

Zuhal East. Ultra marginal field development. Samarang. Conventional field development. Sumandak. Conventional field development. Tebungo. Conventional field development. Kinabalu NAG. Gas field development. Kinabalu X. HPHT field development

Assessment of ultra-marginal field development strategy. Culzean uHPHT field development

Chissonga deep-water field development

Jackdaw uHPHT field development (JV)

* Maersk Oil (First Operated): Culzean uHPHT Field development (UK Sector).

Non-Operated Assets Representative: Represent Eni UK Limited at joint venture (JV) partner meetings (TCM, DCM et al). Technically review all operations, from HPHT exploration drilling to HPHT field development plans and advise the Drilling Manager, Development Manager & Managing Director of Eni UK Limited.

* Deborah Gas Storage Project: Lead Engineer carry out required technical study work to validate basis of design. Manage invitation to tender, 3rd party service providers. Delivery of the field development basis of design (drilling, completions & production technology). Attend & present at (potential) partner / investor meetings.

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Total Exploration & Production UK Limited. Elgin Franklin & West Franklin HPHT field development (Live annuli management philosophy & well integrity, geo-mechanical failure evaluation)

* ConocoPhillips Limited. Broad Portfolio including Jasmine HPHT field development (HPHT perforating performance validation)

BP. Broad Portfolio including Kinnoul field development.

Lead Completions Engineer Nexen Petroleum (UK) Limited for the Buzzard & Scott Assets; responsible for the completion basis of design (BOD). Also responsible for new field development studies for well designs; liaising with the Sub-Surface team.

* Buzzard Field development (including sand face design study & full formation damage evaluation testing. OHGPSS including well testing)

Scott Field development & Management of Well Stock

Golden Eagle Field development Feasibility Study

Selkirk HPHT Field development Feasibility Study. Tubing Stress Analysis, Metallurgy Selection, Reservoir Sand Face Design.

Ettrick Field development Study. FMEA Down Hole Flow Control.

Kessog HPHT Satellite Field development completion design and validation. South Magnus Completion design, validation and installation.

Facilities Engineering Consultant	ERP0150

- * Tordis Tampen Field development. DOF Subsea Bergen.
- * EPCI Consultant on Gimboa Field development Review. Endeavor/Knowledge Reservoir, Houston.
- * Responsible for setting up the office of the engineering and project department in the AP Region for the Subsea OU and Mentor Subsea. This included hiring of technical staff, setting up of operating and QA procedures, purchasing equipment and software, and overseeing the general set-up of the new office. Providing direction on EPCI and FEED projects. Study manager for the subsea field redevelopment of the Okwok Field for Addax Petroleum. Study manager on the concept functionality and installation study of a 6000 ton mid-water arch tower for Inpex Ichthys field development in Western Australia. Engineering manager on the design of a 60 ton tension Horizontal Lay System for umbilicals and flexible flowlines to be installed on company lay vessels. Provided direction on the development and the production of URF EPCI Tenders for the AP Region.
- * Project Manager of the Project Management Team on the Deepwater Gunashli Project, responsible for the fabrication, installation and commissioning of the East Flank Water Injection Manifold and associated spools and jumpers of the field development. This reimbursable project

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of \$98M value involved the design, construction and installation of a six valve manifold, four jumpers to trees, a 5km umbilical and two 5km flexible flowlines. Responsible for all aspects relating to the fabrication and installation of the manifold, flowlines, jumpers, flying leads, and spools.

- * Dolphin Gas Field development Project, Trinidad Pipeline Tie-ins
- * Harding Field development Installation of Pipeline
- * Reassigned to the Chanter Field development
- * Scapa Field development Project

Facilities Engineering Consultant

ERP0151

- * Carried out tender preparation and the evaluation of large field development project tenders,
- * Assisted in the 3rd party review of all engineering analysis reports and drawings issued by the contractor for the NELP Block KG-DWN-98/2 field development.
- * Also responsible for the development of the design of circa 80 subsea structures for the preparation of tender documents for the ITT of a field development offshore Africa.
- * Project :- SDA, Montara Field development

As Structural Engineer, I carried out work on the design and analysis of the structures listed below, which were part of this field development.

* Project :- SDA, Bambra East Field development

As Structural Engineer, I carried out work on the design and analysis of the structures listed below, which were part of this field development.

* Project :- SDA, Enfield development Area

Reservoir Engineering Consultant

ERP0153

* Publication "Applying Time-lapse Seismic to Reservoir Management and Field development Planning at South Arne, Danish North Sea", in VINING, B.A. & PICKERING, S. C. (eds) Petroleum Geology: From Mature Basins to New Frontiers - Proceedings of the 7th Petroleum Geology Conference, 523-535.

Geology Consultant

ERP0155

* Kazakhstan: Precaspian basin/ Rozhkovsky Field

Review of client?s workflows and overall approach to static modelling and data input.

* India

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Indus Basin, Rajasthan/ SGL field

Review of static model and reserves as part of an independent review of FDP plan.

* Pearl Energy, onsite Bangkok

Thailand

Thai Basin / Jasmine Field

Reviewing of well correlations and construction of static model with complex and dense structure containing multiple y-faults, facies model of multi storey meandering channel system. Volumetric uncertainty of facies and properties in workflows. Structural uncertainty done separately.

* Serica UK

Rhum Gas Field, North Viking Graben

Review of static model and it?s input as part of reserve assessment.

Geoscience Consultant

ERP0157

- * Proven geoscience discipline and integrated petroleum engineering team leadership with a consistent track record globally in planning and safe execution of appraisal, development and rejuvenation projects in oil and gas reservoirs (Field development Plans, Well Delivery, Near Field Opportunities and WRM) whilst identifying cost-effective solutions. Extensive experience and expertise in well abandonment programmes and Carbon Capture and Storage (CCS/CCUS).
- *Successfully delivered and received regulatory approval for several Field development Plans globally
- * Responsible for providing the subsurface leadership and well delivery for the Arran and Fram Field developments.
- * Provided technical assurance and peer reviews for multiple CCS projects, including Northern Lights, Acorn and NZT. Co-authored and provide peer reviews and assists globally to the Shell Group Subsurface Isolation Strategy guidelines for input in well abandonment programmes.

Reservoir Engineering Consultant

ERP0158

* Reservoir engineering support in well planning, long term well testing, reservoir characterisation and appraisal activities related to Baeshiqa PSC, Northern Iraq. Reservoir modelling and field development planning, reserves and economic assessment.

Leading role in reservoir engineering and field development studies:

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- * Responsible for testing and validation of a numerical method (implicit representation of hydraulic fracturing in the tight-gas simulation models). The method was successfully industrialised and further applied to Sulige field development evaluation, China.
- * Technical and economical evaluation of oil rim development as part of Orenburg gascondensate field development monitoring program.

Asset Management Consultant

ERP0160

- * Broad business and technical skills in Field development, Project Management, Asset Management and Team Leadership. Specific technical skills in Reservoir Management, Seismic Surveillance, Ocean Bottom Seismic, Permanent Reservoir Monitoring and Reserves Assessments
- * Key linking role with Commercial, Procurement, HSE and Field development teams.

Production Technology Consultant

ERP0162

* Confidential Clients: Wells Technical Due Diligence, Merger & Acquisition (M&A) - Performed a technical due-diligence study for a high profile Merger and Acquisition (M&A) \$1.8 billion activity for a large offshore field with around 90+ planned wells. After reviewing basis of designs, FDP and drilling plans, furnished a number of technical RED flags and highlighted possible ways to correct them. Our clients were able to go back to the drawing board and reviewed their M&A deal in the light of our technical intervention.

Petrophysics Consultant

ERP0169

- * Australia, Cooper Basin. Unconventional fracture stimulation wells Feb-May-13 Key Well Study: data acquisition and evaluation templates for old & new hi-tech well integration including LWD, NMR, MDT and tests. P10, P50, P90 curves for., Sw, kabs, kg, kw, pay and fractional flow using PetroDB-Vault. Key field development recommendations.
- * Indonesia Dec01. Dec02: BP Indonesia. BP?s.Define? stage for Field development Plan, complex poregeometry carbonate, detailed core-log integration, capillary pressure Skelt Sw functions, peer reviews. SCAI design. ALSO: Marginal conglomerates feasibility study / Detailed Geolog Multimin studies / Probabilistic vs Deterministic comparisons
- * Worked as an already qualified petrophysicist in the Exploitation Dept in field development teams consisting of managers, geophysicists, geologists and reservoir engineers. Amethyst, Drake, Brent. Work embraced reservoir engineering and the field development economics. Projects included a Department of Energy gas/condensate Annex B, equity re-determinations and in-house sensitivity studies. Represented Amoco at equity meetings and worked on equity agreements. Role required knowledge of evolving petrophysical techniques and spanned exploration, reservoir geology, and reservoir engineering. Resigned (not laid-off!) following repeated offers for over 12 months consulting

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Document: FDP Experience.



Well Engineering Consultant

ERP0172

* Working in Kazakhstan, on a 28:28 rotations basis, on Karachaganak field under Phase 2 & 2-M. The field is one of the largest gas and condensate field located in northwestern part. The reservoir fluid can be classified as highly corrosive for both CO2 (Max. 5.5%) and H2S content (Max.4.5%). The area of operations is in a severe continental climate with outside temperatures ranging from -40 deg. C in winter to +40 deg. C in summer. The wells drilled during initial field development were targeting combined gas and condensate production. This objective according to the PSA was then changed to accelerate early oil production, increase long term gas condensate production and reinject 40% of the sour gas to optimize the field recovery. Consequently, mostly of the 250 wells that were initially drilled during initial development, had to be work-over to achieve the change in the development objectives and meet the more demanding envelope and HSE objectives. KIO. Karachaganak Petroleum Operating B.V. (ENI-BG-Chevron / Texaco- Lukoil)

Facilities Engineering Consultant

ERP0175

- * Material Selection, Corrosion and erosion study for Subsea Production Systems (SPS) and SURF for Gimbao field development for Sonongal, Angola
- * Block R field development, Ophir Energy
- * Material selection, Corrosion and Erosion study for the entire Subsea Production System (SPS) of OCTP and Mamba/Coral field developments, Eni, UK
- * Provision of consultancy services to Kashagan full field development (FFD) project. formerly for Agip KCO and currently for Shell Development Kazakhstan (SDK)
- * ECA verification of CORRIB field development (phase III) for Shell E&P, Ireland Engineering

Production Engineering Consultant

ERP0177

Lead Production Engineer, assigned to Kuwait Oil Company/Shell North Kuwait Gas Field development

Lead Production Engineer, assigned to KOC/Shell North Kuwait Gas Field development

Reservoir Engineering Consultant

ERP0179

- * Has worked on field development planning, cross-disciplinary integration and technical reviews of conventional and unconventional projects around the world for Shell and its joint venture partners.
- * Supervising front-end field developments in enhanced waterflooding, chemical/gas/thermal enhanced oil recovery (EOR) for PDO?s clastic and carbonate fields (Nimr-A, Nimr-E, Marmul ASP, Haima West, Fahud Natih-B, Yibal, Dhulaima) and sharing of global best practices.

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- * Senior expert in reservoir engineering and petrophysics for field development planning integrated reservoir modelling, IOR/EOR and CCUS
- * Led full life-cycle field development planning to holistically address optimum recovery vs. overall unit technical cost and greenhouse gas emission benchmarks.
- * Reservoir engineering technical expert and reviewer in field development planning to help ensure applicable enhanced recovery processes are adequately addressed in development plans including optimum timing for EOR and early de-risking from lab to field piloting.
- * In-house experts in field performance reviews and health-checks to assess actual field performance against field development plans and recommend plan update or improvement in well and reservoir management where needed.
- * Responsible for Shell?s global IOR/EOR technology portfolio and field development planning in waterflooding, carbonate field development and related technology deployment. Led a global organisation of around 100 experts located in the Netherlands, Oman, US and Canada.
- * Led related field development planning, technology development, demonstration and deployment supporting PDO and Shell's Middle East regional projects and new business development opportunities focusing on carbonate reservoirs (e.g. UAE, Kuwait, Qatar).
- * Led the efforts to screen and rank PDO's oilfield portfolio for increased recovery and expand technology application envelope. Delivered field development plans and field pilot designs leading to subsequent commercial scale development to unlock significant resource volumes.
- * Initiated and delivered field development plans in chemical enhanced oil recovery, and solar steam pilot via concentrated heating.
- * Petroleum engineering consultant for BG global exploration and New Business Development, petrophysics and reservoir engineering support for BG's North Sea Blake (UKCS) field development planning and oil-rim horizontal well placement optimisation, also supervising trainee engineers at BG's Petroleum Engineering department (now part of BG Advance).
- * Performed petrophysical core analysis and log interpretation to support field development of the Karachaganak field in Kazakhstan.
- * Developed and delivered BG in-house reservoir engineering, petrophysics and gas field development training courses.
- * Course director of gas field development project based on the Southern North Sea gas field setting, developed GASPRO an integrated gas field development planning tool.
- * Responsible for petrophysics and reservoir engineering aspects of the Imperial College MSc integrated oilfield development planning project.

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Geomechanics Engineering Consultant

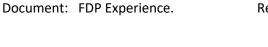
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* Designed supplementary studies to unravel and help improving E&P and FDP (Field development Planning), and Quality controlled ongoing Geomechanics studies/projects within ADCO?s Assets.

Asset Management Consultant

ERP0182

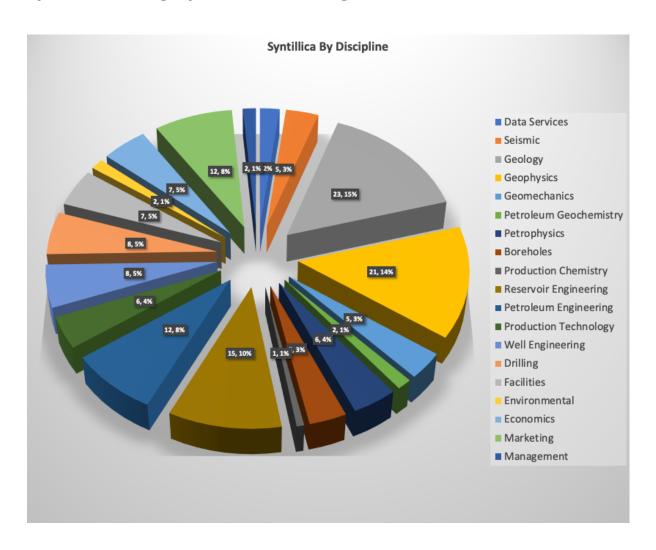
* Directed the re-engineering of the Bualuang Field development plan; a multiyear and multiphase project which resulted in significant reserves upgrades. the field was originally bought for 15 million barrels. production has delivered more than 35 million barrels to date and is forecast to reach 60 million.



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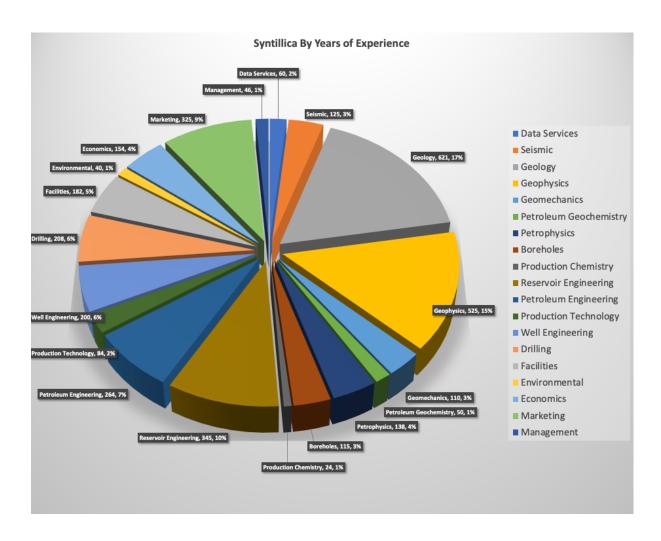


Syntillica Group by Technical Discipline and Head Count





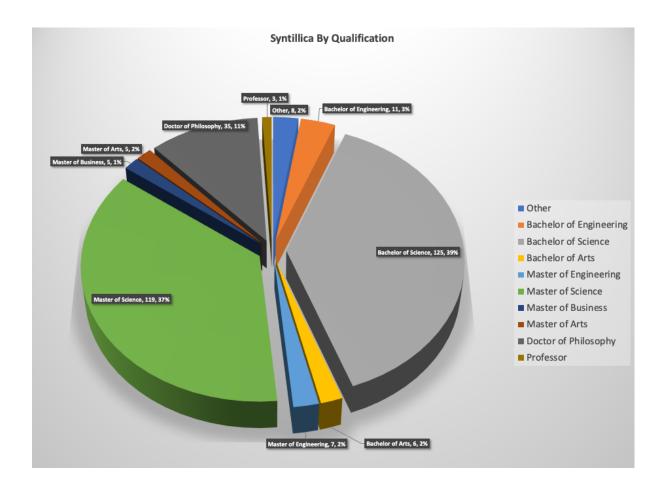
Syntillica Group by Technical Discipline and Years of Experience







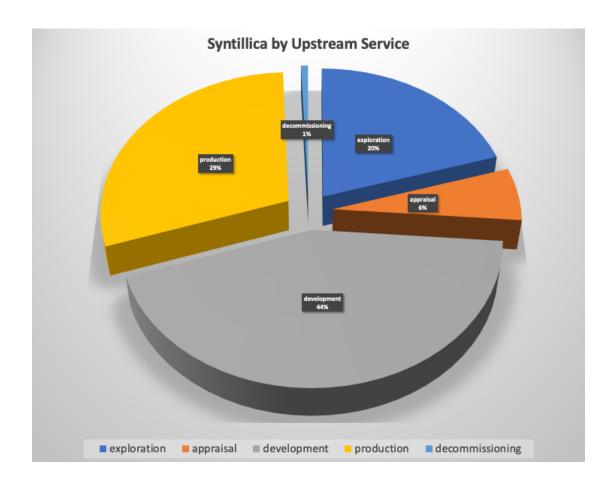
Syntillica Group by Qualifications







Syntillica Group by Upstream Service Type Examples

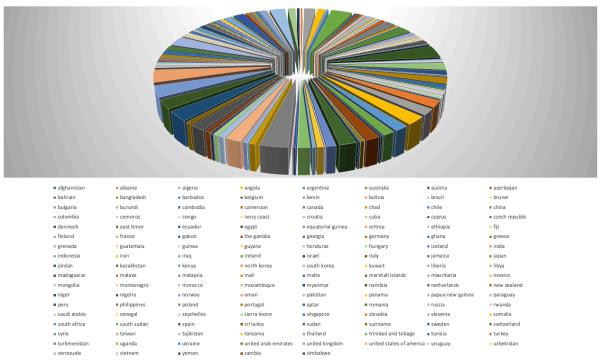


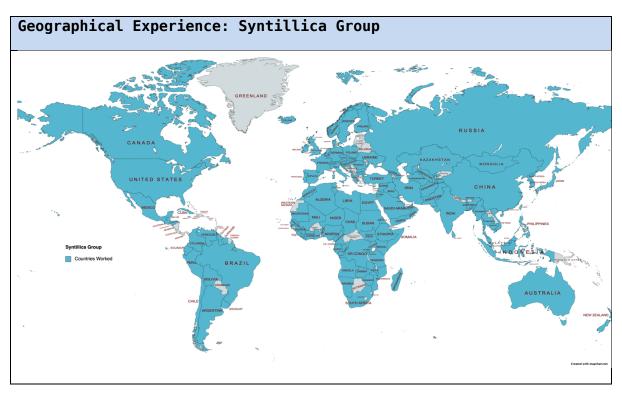




Syntillica Group by Global Experience Map

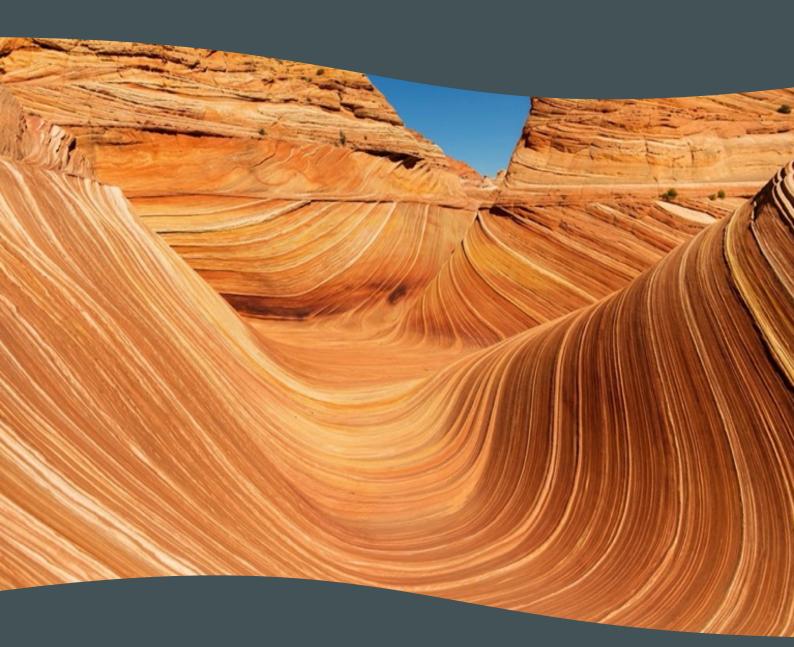
Syntillica Group Global Experience by Country





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Consulting for the Energy Industry