# Eduardo Farina Saint Selve

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**SUMMARY.**

I am a Petroleum Engineer with 28 years of experience as a Field Development Engineer. I have worked in the three most important basins in Argentina: San Jorge, Neuquén, and Austral. Additionally, I served as Senior Reservoir Team Leader in Second Line for Repsol Libya at Akakus Oil Operations.

As a Reservoir Engineer, I have extensive experience in managing oil, gas, and condensate reservoirs. I have provided support at TOTAL, REPSOL, AKAUS, and YPF, developing and managing fields both onshore and offshore. My advisory work covers all aspects of reservoir management, including the design, participation, and implementation of Primary, Secondary, and Tertiary (EOR) reservoir management programs.

Moreover, I have practical experience in building and using reservoir simulation models, utilizing tools such as Eclipse, Petrel RE, and tNavigator. These models have been crucial in optimizing production and reserves. I have also identified opportunities for new well locations, maximizing overall recovery. My skills extend to material balance modeling and reservoir fluid analysis, contributing to the optimization of dynamic models.

In the field of Economic Project Evaluation, I have a deep understanding of PEEP (MERAK) methodologies. I have conducted Decision Tree, Risk, and Tornado analyses. Additionally, I have been responsible for Annual Development Plans and Long-Term Plans. I also have experience in Annual Reserves Reporting, complying with SEC regulations.

The software tools I proficiently handle include OFM, Sahara, Eclipse, PETREL RE, PROSPER, MBAL, Saphir, PEEP, and Crystal Ball. Additionally, I have experience in programming in Python, Machine Learning, and Data Analysis.

Beyond my technical experience, my strong Reservoir Engineering skills are complemented by effective communication and well-developed interpersonal and intercultural skills. I am highly adaptable to new situations, departments, and cultures, and I am willing to live and work in different countries. My aspiration is to face new challenges in diverse fields.

**WORKING HISTORY**

Feb 2020 – Today
YPF Argentina

**Advisor Regional Development Reservoir Engineer, Santa Cruz, Argentina**

As the Responsible for Regional Field Development Plans, Monitoring, and Optimizations, my role involves overseeing the strategic planning and execution of field development initiatives across the Santa Cruz Province. This encompasses analyzing existing field data, identifying optimization opportunities, and devising comprehensive plans to maximize production efficiency and reservoir performance. Through continuous monitoring and evaluation, I ensure that implemented strategies align with project objectives, regulatory requirements, and industry best practices. Additionally, I spearhead optimization efforts, leveraging advanced analytical and numerical models such as Petrel RE, Eclipse, and Stream Lines to refine production processes and enhance overall asset performance.

In my capacity as the architect of the Strategic Waterflooding Development Plan and Reserves Determination, I lead efforts to design and implement robust waterflooding strategies aimed at maximizing oil recovery while accurately assessing reserves. This involves conducting thorough reservoir analyses, identifying suitable waterflooding patterns, and developing customized plans tailored to the unique characteristics of each asset. By integrating technical expertise with industry insights, I ensure the implementation of cost-effective and sustainable waterflooding solutions, contributing to long-term reservoir management and resource optimization objectives.

As the overseer of 24 assets in the Santa Cruz Province, my primary responsibility is to ensure the correct development and optimization of each asset to maximize production efficiency and resource recovery. This involves overseeing a range of critical activities, including analytical and numerical models analysis using tools such as Petrel RE, Eclipse, and Stream Lines. Through meticulous ranking and selection of optimization patterns, I identify opportunities to enhance reservoir performance and streamline production operations. Furthermore, I implement robust monitoring and surveillance protocols to track waterflooding activities, ensuring compliance with regulatory standards and optimizing fluid movement within reservoirs to maximize oil recovery potential.

My role also entails addressing water conformance challenges to mitigate risks and optimize reservoir performance. By delivering Workover (WO) recommendations and actionable insights, I facilitate targeted interventions to optimize production and extend asset lifespan. Additionally, I provide comprehensive technical and economic analyses for new well drilling and workover projects, evaluating feasibility, and assessing potential returns to inform strategic decision-making processes. Leveraging advanced forecasting techniques and historical data, I conduct reserves estimation exercises to provide accurate insights essential for long-term planning and resource allocation strategies. Through these efforts, I play a key role in driving operational excellence, maximizing asset value, and ensuring sustainable development across the Santa Cruz Province..

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Sept 2012 – Jan 2020
YPF - Argentina

**Principal Development Reservoir Engineer.**

**Field Monitoring and Optimization**: As the Responsible for Field Monitoring and Optimization, my role encompasses a comprehensive approach to managing eight assets. Within this portfolio, I engage in multifaceted tasks, including analytical and numerical models analysis using tools such as tNav and Petrel RE. These models allow us to gain insights into reservoir behavior, optimize production strategies, and make informed decisions. Additionally, I rank and meticulously select patterns for optimization, ensuring efficient reservoir management.

**Waterflooding Strategies and Conformance**: A critical aspect of our operations involves waterflooding monitoring and surveillance. I oversee the implementation of waterflooding techniques, ensuring that they align with our strategic goals. Furthermore, I focus on water conformance, aiming to maintain reservoir integrity and prevent unwanted water breakthrough. By delivering well optimization recommendations and actionable steps, I contribute to sustained production performance.

**Technical and Economic Analysis**: My responsibilities extend to providing technical and economic analyses for both new well drilling and well workover projects. These assessments guide our decision-making process, considering factors such as cost-effectiveness, reservoir potential, and overall project viability. Additionally, I engage in forecasting and reserves estimation, crucial for long-term planning and resource allocation.

**Alignment with Company Strategy**: Ensuring that our Regional Field Development Plans align seamlessly with the company's overarching strategy is a top priority. I collaborate closely with stakeholders to harmonize our objectives, optimize resource allocation, and maximize asset value. By integrating technical expertise with strategic vision, we drive sustainable growth.

**Book of Reserves and Best Practices**: As the Technical Lead for the Book of Reserves exercise, I coordinate efforts across asset managers, economists, and technical experts. Rigorous evaluation and validation of reserve numbers are essential for accurate reporting. Additionally, I actively promote the adoption of best reservoir practices and processes across all regional assets. This knowledge transfer ensures consistency and excellence in our operations.

**Production Engineering Standards and Quality Assurance**: My commitment to maintaining high standards extends to production engineering within the regional assets. I motivate and develop staff while ensuring adherence to quality assurance and quality control (QA/QC) protocols. By striking a balance between technical oversight and operational execution, we achieve optimal performance without compromising safety or efficiency.

**Strategic Collaboration and Subsurface Enhancement**: Collaborating closely with the Regional Manager, I contribute to defining Field Development strategies for all eight assets. Our goal is to maximize their intrinsic value. To achieve this, we establish best practices for subsurface studies, focusing on enhancing both vertical

and areal reservoir extent. By conducting necessary studies and leveraging innovative approaches, we unlock hidden potential and drive sustainable growth.

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Aug-2008 – Sept 2012
Repsol Libya.

**Secondee Advisor Reservoir Engineer and Team Leader, AKAKUS Oil Operations**

**Field Monitoring and Optimization**: As the Responsible for Field Monitoring and Optimization, I oversee critical aspects of six major fields. Within this portfolio, we manage 165 oil producer wells, 19 water injectors, and 12 water source wells. Our collective efforts contribute significantly to the overall production landscape, accounting for 141,000 barrels per day (bb/d)—an impressive 47% of Akakus' total production. Additionally, we meticulously handle a water injection rate of 77,000 bb/d, supplemented by 50,000 bb/d of make-up water.

**Integrated Reservoir Modeling and Analysis**: My role extends beyond routine monitoring. I spearhead an outsourced project aimed at constructing an integrated reservoir simulation model for the AHM Fields. This model encompasses a vast aquifer, with one million active cells. Our comprehensive approach includes detailed reservoir description and petrophysical analysis. Furthermore, I personally build and execute a North H simulation model, specifically to understand natural water influx. Rigorous assessments, including material balance calculations, well test re-interpretations, and reservoir fluid analysis, ensure the quality and reliability of our simulation results.

**Escarpment Communication and Interference Testing**: My team and I delve into intricate details. We meticulously analyze pressure monitoring data to validate communication pathways between H East and West—specifically, the overlapping regions of Mamuniyat and Hawas. Through three interference tests and a comprehensive pressure monitoring analysis, we substantiate our conclusions. These insights are pivotal for informed decision-making and effective reservoir management.

**Yearly Reserves Reporting and Capacity Building**: As part of our commitment to transparency and accountability, I diligently prepare the Yearly Reserves Information for both the Libya National Oil Company and REPSOL. Our estimation methodologies include decline analysis at the well level and WOR vs. Np curve assessments. Beyond technical expertise, I actively mentor and transfer knowledge to Junior Reservoir Engineers, fostering their growth and ensuring continuity in our field operations.

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Oct-2001 to Aug -2008
Repsol

**Reservoir Chief of Cañadon Seco Area, San Jorge Gulf Basin.-**

**Strategic Reservoir Development Leadership**: As the Reservoir Development Plan Manager overseeing five fields, I play a pivotal role in shaping our reservoir strategies. My responsibilities span from optimizing production to enhancing recovery mechanisms. I lead a team of six Reservoir Engineers and three Technicians, ensuring seamless execution across our operations.

**Secondary Recovery Projects and Production Metrics**: Within this dynamic context, I have spearheaded 20 secondary recovery projects, managing a substantial portfolio of 1,000 oil wells and 280 injector wells. Our collective efforts yield a total oil production of 10,000 barrels per day (bb/d), complemented by a robust water injection rate of 11,500 bb/d. These metrics underscore our commitment to sustainable field development.

**Innovative Approaches and Performance Enhancement**: My contributions extend beyond routine management. I successfully conducted a Polymer Project Pilot and developed three dynamic simulation models using Eclipse. These models allow us to fine-tune our strategies, optimize well performance, and enhance overall oil recovery. Additionally, I actively monitor well behavior, leveraging data-driven insights to improve production efficiency.

**Reserves Management and Collaborative Initiatives**: As the conduit between operations and the Reserves Department, I meticulously oversee Yearly Reserves Information. My role extends beyond technical expertise—I motivate colleagues to explore novel methodologies and software techniques. Our monthly G&G (Geology and Geophysics) meetings foster collaboration, enabling us to align ideas and drive field development strategies forward.

**Holistic Field Optimization and Business Planning**: My holistic approach encompasses both technical and strategic aspects. I propose innovative water injection patterns, aiming to maximize the recovery factor. Furthermore, I've meticulously studied and optimized two new secondary recovery projects. Additionally, I've designed comprehensive business plans for the optimal development of two oil and gas fields. Through these multifaceted efforts, we ensure sustainable growth and resilience in our operations.

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Jan-2000 to Oct-2001
TOTAL AUSTRAL

**Senior Engineer, Neuquen Basin.-**

**Reservoir Simulation Enhancement**: I delved into the intricacies of reservoir simulation models, specifically utilizing Eclipse. Through rigorous analysis and optimization, I achieved an impressive 11% increase in reserves. By fine-tuning parameters and refining our understanding of reservoir behavior, we unlocked significant potential for future production.

**Unlocking Potential in Gas and Condensate Fields**: In a natural fractured gas and condensate field, I conducted an in-depth study. My findings led to the recommendation of two new wells, strategically positioned to maximize recovery. Additionally, I spearheaded the development of a gas field with a small oil ring, resulting in a remarkable 5% boost in oil recovery factor. These initiatives exemplify my commitment to innovative solutions.

**Strategic Well Testing and Software Management**: To enhance connectivity insights, I proposed and executed well tests interference within a gas field. By analyzing pressure responses and flow dynamics, we gained valuable knowledge about reservoir connectivity. Simultaneously, I efficiently managed internal software resources, streamlining processes and reducing time by 20%. Furthermore, I optimized gas compression stages, ensuring seamless field pressure management through our reservoir simulation model.

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Nov-1996 to Apr-1999
TOTAL AUSTRAL

**Reservoir Engineer Extended Rich wells campaign, Austral Basin.-**

**Comprehensive Well Management**: As the lead for well monitoring, I oversaw a substantial portfolio of 200 wells, spanning both onshore and offshore locations. My responsibilities included ensuring the smooth operation of these wells, monitoring their performance, and promptly addressing any issues. By meticulously optimizing well gas lift and choke settings, I achieved an impressive 10% increase in overall production.

**Expertise in Logging and Drilling**: I supervised Offshore and Onshore well logging, utilizing techniques such as MDT (Modular Formation Dynamics Tester), RFT (Repeat Formation Tester), and CMR (Compensated Magnetic Resonance). Additionally, I played a pivotal role in overseeing the drilling process for seven extended rich wells, including the notable example of CN-1 with a 38,000-foot departure. These experiences enriched my understanding of reservoir dynamics and contributed to our operational success.

**Innovative Approaches and Reservoir Modeling**: My contributions extended beyond day-to-day operations. I successfully managed E.R.W (Enhanced Oil Recovery) startups, implementing cutting-edge techniques. Through simulation studies, I explored various E.R.W. locations, resulting in a 2% cumulative production increase. Furthermore, I optimized well completions by analyzing factors such as tubing ID, leading to a 5% boost in production. Additionally, I proposed, developed, and simulated well tests, refining our reservoir models and enhancing decision-making.

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Jan-1995 to Nov-1996
TOTAL AUSTRAL

**Reservoir Engineer at El Huemul Field, San Jorge Gulf Basin.-**

**Field Management and Optimization**: As a professional, I successfully managed three secondary recovery areas, overseeing a total of 40 injectors and 80 oil producers. My responsibilities included developing and enhancing water flooding techniques, meticulously optimizing well completions, and fine-tuning water injection rates. Through these efforts, we achieved a remarkable 3% increase in secondary recovery.

**Cutting-Edge Techniques and Analysis**: In pursuit of excellence, I spearheaded the implementation and analysis of radioactive tracers and flow meters logging. These advanced techniques allowed us to gain invaluable insights into reservoir behavior, contributing to our overall reservoir management strategy. By leveraging these tools, we made informed decisions to further enhance production and maximize recovery.

## EDUCATION

MSc. Degree in Reservoir Engineering – Instituto Tecnológico de Buenos Aires – 1995

## TECHNICAL PUBLICATIONS

- *SPE-184910-MS "Streamlines Versus Conventional Simulation for Complex and High Resolution Models" - J. P. Ursule and E. A. Farina Saint Selve, YPF S.A.*
- *SPE-185549-MS "FEL Method in One 3D Project to Develop an Oil Field in Los Perales, San Jorge Basin, Argentina" J. Ursule, E. A. Farina Saint Selve, G. Pedersen, and R. Lehu, YPF SA*
- *"Cambiando Paradigmas, de la simulación dinámica 1D a la 3D para incrementar el factor de recobro en los campos maduros de la CGSJ" – 21 JORNADAS TECNICAS IAPG, CR – Agosto 2018, Argentina*
- *"Development of high risk deep Horizons with secondary" – AAPG LA, Extending Mature Fields' Life Cycles: The Role of New Technologies and Integrated Strategies. – May 2015, Argentina*

## LANGUAGES

• English – Advanced

• French – Biginner

## SOFTWARE

MS OFFICE - MBAL - PROSPER - GAP - ARIES - OFM - ECLIPSE - FRONTSIM - VISAGE - INTERSECT - SAHARA - PETREL RE - MEPO - MANGROVE/KINETIX SHALE

PYTHON Advance programmer.

STATUS: Married. One Son (25 years old).

NATIONALITY: French & Argentinian.