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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------|
| <b>Full Name &amp; Contacts</b><br><b>Ali Zareiforush</b><br><a href="mailto:ali.zareiforush@gmail.com">ali.zareiforush@gmail.com</a><br>+98 935 999 1094<br>+98 911 135 8268 | <b>Most Recent Employer</b><br><a href="#">PECO</a> | <b>Most Recent Professional Position</b><br>Chief Production Engineer | <b>Experience</b><br>> 18 years           |  |
|                                                                                                                                                                               | <b>Location</b><br>Iran; Tehran                     | <b>Most Recent Education</b><br>MSc Petroleum Engineering             | <b>Experience Level</b><br>Expert / Chief |                                                                                    |

## Profile

I am **Production Engineer | Production Technologist | Petroleum Engineer** with over 18 years of experience in Engineering, Operations, and Management. Expertise spans onshore and offshore activities, encompassing Production and Well Completion Engineering, Nodal Analysis, Network Modeling, Flow Assurance, Well Testing, Reservoir and Production Operation, Well Intervention, and Stimulation. Proven track record in managing and supervising production activities, along with proficiency in various software tools for well modeling, production optimization, and dynamic well modeling. Notable experience includes projects in HPHT Onshore Gas Wells, Offshore Gas Condensate Wells, and Horizontal & Slant Wells Oil Fields. Specialized expertise extends to carbonate reservoirs in Illam, Bangestan, and Khami formations, as well as significant experience in Sandstone reservoirs in Asmary formation of Iran oil/gas fields.

## Education

MSc in petroleum engineering from [University of Tehran \(UT\)](#) Jun, 2023

- Thesis: A Comprehensive Approach to Build 1D MEM of Oil and Gas Wells using Machine Learning Algorithms

BSc in petroleum engineering from [Petroleum University of Technology \(PUT\)](#) Sep, 2006

- Thesis: Effect of CO2 injection on live oil recovery at elevated temperature using Slim-Tube apparatus

## Professional Summary

- Preparation of **Production Engineering BOD** and FEED in pre-operation phase of project
- Team leading for **Well Screening** to select **Candidate Wells** for Stimulation & ALS
- Team leading for **Acid-Prop Fracturing** Multidisciplinary Engineering and Design
- Team leading for **ESP Engineering and Design** (Reservoir, Production Completion)
- Well Production Modeling and Analysis and **Nodal Analysis**
- **Multiphase Flow Modeling**, fluid Mechanics and Computational Fluid Dynamics
- Fullbore DST, Well Testing & Cleanup Design and Analysis
- Pressure Transient Analysis (**PTA**)
- **DFIT (XLOT / Minifrac)** Test Data Analysis
- Well **Stimulation Design**, Matrix Acidizing and CT Acid Design and Analysis
- **Fracturing Design** and Analysis
- CT **Well Intervention** Design and Analysis
- **Flow Assurance** Studies (Well & Network)
- Dynamic Well Modeling in OLGA (Computational Fluid Dynamics)
- Tendering and Planning for Production Operation & Services
- **Operation** Management and Supervision (Surface Well Test, FBDST, Intervention & Stimulation)
- **Operation** Planning and Coordination
- **Operation** Risk Assessment and Contingencies Preparation and Planning
- HPHT Onshore Gas Well (**Qezel Tappeh** and **Maroon Khami**)
- Offshore Gas Condensate Wells (**South Pars**)
- Horizontal & Slant / Deep Carbonate Wells (in **South Azadegan**, **SEPEHR-JUFAIR**, **AZAR** and **Yadavaran**)

## Software

- Well Modeling & Production Optimization: **Prosper**, **PIPESIM** (Advanced User)
- Well Completion Design and Analysis: **TDAS** (Advanced User)
- ESP Modeling & Optimization: **SubPUMP**, **WellFlo** and **Prosper**, **PIPESIM**, **Excel Spreadsheet** (Advanced User)
- Well Testing Design: **ArchiTest**, **PIPESIM** (Advanced User)
- Well Dynamic and Flow Assurance Modeling: **OLGA**, **Multiflash** (Advanced User)
- Pressure Transient Analysis (PTA): **Kappa WS / Saphir**, **IHS Well Test** (Advanced User)
- Matrix and CT Acidizing: **Wellbook**, **STIMPRO** (Advanced User)
- Reservoir Geomechanics and 1D MEM Construction: **excel spreadsheet** (Advanced User)
- Well & Cement Integrity Design and Analysis: **CemSTRESS**, **iMAASP**, **API RP 90 EXCEL** (Advanced User)
- CT Well Intervention Design/Analysis: **Cerberus** (Advanced User)
- Fracturing Design and Analysis: **FRACPRO** (Advanced User)
- Fracturing Design and Analysis: **FracCADE**, **GOHFER** (Intermediate User)
- Data Analysis & Machine Learning; **Power BI**, **Excel**, **Python** (Advanced User)

## Work Experiences

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**Mar 2022 to Present (~ 3.0 yrs.)**

**Chief Production Engineer (Tehran)**

[PECO \(Pezhvak Energy Engineering Company\)](#)

**EPD Contractor**



Spearheaded rig-based and rig-less production activities in **SEPEHR-JUFAIR, SIAHMAKAN, and DARKHOEIN** Oilfields Wells Development. Leading an engineering and operation team (daily operations, including Well Intervention, Completion, Well Testing, and Stimulation):

- Led **Nodal Analysis** and Well Performance Optimization in PIPESIM, **coupled** with comprehensive well **completion design** using TDAS. Through these endeavors, successfully achieved production and cost optimization objectives.
- Led the evaluation of **well performance of horizontal wells** with different **PI values** over a span of 15 years and resulting in the development of a refined approach for the selection of the optimal **ESP** system for target wells.
- Successfully optimized project timelines by **transitioning from WCP to TCP**, aligning with the project SOW encompassing a 250-meter net interval. Employed detailed engineering and simulations to streamline the perforation process, resulting in a notable reduction of 22 days in rig time, showcasing a commitment to operational efficiency and client satisfaction.
- Successful utilizing **PIPESIM & TDAS** to model the SPH-09 well, conducting a comprehensive thermal analysis of **APB** during well flowing scenarios, in order to strategically bleeding-off pressure, utilizing predetermined volumes, to mitigate and prevent any undesirable pressure escalation in the annulus.
- Well Test & Stimulation **Data Analysis** and Report (Surface and Downhole)
- **Tender Preparation:** Responsible for the 1<sup>st</sup> ESP and Fracturing technical and commercial Scope of Work preparation in IRAN as an EPD Contractor including FEED and BOD.

Additionally, in the **QEZEL TAPPEH (QT) HPHT GAS FIELD** appraisal well;

- Phase-1, Tendering: **BOD** and Engineering of Surface Well Test, FBDST and Stimulation
- Phase-1, Tendering: Preparing **tender SOW** and proposals.
- Phase-2, FEED and Engineering: Supervision and ensuring the **highest safety standards** in Well Test and Well Intervention.
- Phase-2, FEED and Engineering: Contributing to Coiled Tubing **Stack design**, adhering to MASP values.
- Phase-3, Operation: Supervision and coordination of Surface Well Test and FBDST.

**Nov 2020– Mar 2022 (~ 1.4 yrs.)**

**Chief Production Engineer (Tehran)**

[Oil Industries' Engineering and Construction \(OIEC\)](#)

**MC Contractor (& EPD)**



Supervising onshore rigless and rig-based activities working in **South Azadegan Oilfield** Wells Development to lead engineering and operation team:

- **Daily operation** reporting and follow ups Well Intervention, Well Testing and Stimulation Jobs
- Well Performance, Artificial Lifting & Production Optimization
- Flow Assurance (**Asphaltene Precipitation**/Prevention Studies – coupling PIPESIM and Multiflash)
- The **Art and Science of OLGA™** Coiled Tubing Well Intervention operations for the first time
- Well Test & Stimulation **Data Analysis** and Report (Surface and Downhole)

**Sep 2019-Nov 2020 (~ 1.2 yrs.)**

**Production Supervisor (Iran-Iraq Border)**

[ZNV \(ZaruBezhneft Vostok\)](#)

**IPC Contractor**



Managed Production Engineering and Operations: Oversaw Production Engineering and Operations activities in **West Paydar (WP) & Aban (AB)** oilfields.

- **Commissioned and Operated ESP Wells:** Successfully installed, commissioned, and operated 8 ESP Wells (PYW-21, 33, 14, 28, 09, 19, 01, and 15) to optimize production.
- **Supervised Production Operations:** Effectively supervised the production operations of 46 wells, including 34 in WP and 12 in AB Field, ensuring that targets and objectives were consistently met.
- **Managed ESP Completion:** Designed, executed, and supervised ESP completion during workover jobs, contributing to enhanced well performance.
- **Daily Production Rate Monitoring:** Monitored and measured the daily production rates of wells and manifolds to track performance and identify optimization opportunities.

**Sep 2015– Sep 2019 (~ 4.0 yrs.)**

**Lead Production Engineer (Tehran/Kish)**

[Oil Industries' Engineering and Construction \(OIEC\)](#)

**South Pars EPD and AZAR EPDS Contractor**



- Consulting, guiding, and approving engineering and **operation problem-solving**.
- Supervised the Completion-B (well test and stimulation) of 22 offshore deviated wells in South Pars Phases 20 & 21 (SPD20&21).
- Directed the execution of Enhanced Production Delivery Systems (EPDS) for 5 **Acid Frac operations** in AZAR-003, 004, and 011.
- Developed **tender proposals** for "Balal Oil and Gas Field" and "Farzad A & B," demonstrating a commitment to winning new projects.

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- Formulated an **Acid Frac proposal** for the "AZ-250 Well," showcasing expertise in well stimulation techniques and project development.

|                                                                         |                                                                             |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Feb 2014– Sep 2015 (~ 1.7 yrs.)<br>Head of Well Testing Services (Kish) | <a href="#">Mehran Eng. and Well Services Company</a><br>Service Contractor |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|



- Multi-Dimensional Leadership:** Spearheaded a comprehensive range of responsibilities in South Pars Giant Gas Condensate Field Phases. Managed engineering, operations, and a team of over 30 personnel, including supervisors, engineers, operators, and helpers.
- Exceptional Project Management:** Demonstrated prowess in cement quality evaluation, surface well testing, DST (Drill Stem Testing), and fracturing. Proficiently managed workover, intervention, and stimulation projects.
- Strategic Planning and Reporting:** Crafted and presented Service Quality Management (SQM) and services presentations. Prepared job programs, EOJR/EOWR, tender proposals, and technical reports to uphold rigorous standards.
- Procurement Expertise:** Held responsibility for the procurement of well testing services, encompassing surface testing, cleanup packages, DST, and MPFM (Multiphase Flow Meters).
- Client Collaboration:** Collaborated closely with client representatives, ensuring alignment and effective coordination. Conducted engineering seminars and lectures, and actively engaged in negotiations to foster business development.

|                                                                     |                                                                                 |
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| Oct 2006 – Feb 2014 (~ 6.4 yrs.)<br>Sr. Production Engineer (Ahvaz) | <a href="#">NISOC – National Iranian South Oil Company</a><br>NOC (Field Owner) |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------|



- Contributing to production engineering and workover projects in Ahwaz, Maroon, Koupal, Gachsaran, Aghajari, Azadegan, Pazanan, Masjid-soleiman oil fields, collectively producing over 3MMbpd.
- Led the **daily production monitoring** and reporting efforts, providing critical data to Completion and Workover managers for informed decision-making.
- Performed comprehensive well and field monitoring, enhancing production through remedial activities aimed at **increasing Productivity Index (PI)**.
- Evaluated PETROCHINA's **acid fracturing proposal** for AZ-268 and AZ-250, ensuring technical rigor and alignment with project objectives.
- Applied **well test data analysis** and well modeling techniques to optimize operations, focus on AZ BNG, GS ASM, BNG fields.
- Spearheaded **Matrix and CT Acidizing** job across multiple fields, including AZ, GS BNG/ASM, among others, to enhance overall productivity.
- Pioneered the introduction of a groundbreaking technique for **Acid Stimulation Evaluation - Double Multi-Rate Injection Well Testing (DMRI)**, marking a significant milestone as the first implementation within NISOC. This novel approach, detailed in the publication "[Novel Technique for Acid Stimulation Evaluation for the First Time in NIOC - A Field Case History](#)".

## Certificate and Training Courses

### – International

- Pipesim Essential, Nexus OFS, 2025
- Coiled Tubing and Thru Tubing Essentials, Nexus OFS, 2025
- ESP Troubleshooting During Production Phase, Nexus OFS, 2025
- The Power of the Well Nodal Analysis, Nexus OFS, pengtools, 2025
- Pipesim Essential, Nexus OFS, 2025
- Well Servicing, IADC SC, Suez University, 2025
- Well Testing, IADC SC, Suez University, 2025
- Permian Basin, Piopetro, University of Huston, 2025
- The Future of Electrical Submersible Pumps - Linear ESP, by TRIOL, July 2024
- GEOPHYSX0001 Reservoir Geomechanics Course Certificate, Stanford Online & edX, Dec 2023
- HPHT Well Engineering Course Certificates, Netherland, Oct 2023
- Coiled Tubing Professional Course by Udemy Sep 2023
- Well Integrity Norsok D010 by ADD ENERGY ACADEMY, Sep 2023
- Machine Learning in Oil & Gas at Edvantage Learning Solutions - 2023
- IWCF Well Intervention Pressure Control – Level 4, 2022 (3 years expiry) & IWCF L1, 2021
- SPE "Hydraulic Fracturing Technology" course by Mohamed Y. Soliman, PhD, PE, NAI, Oct. 2020
- Thorough Bond "BOND LOG INTERPRETATION" course by Kirk L Harris, Oct. 2020
- SPE "Artificial Lift Technology" course by PROF. Mohamed Ghareeb, Sep. 2020
- SPE "Drilling Rig and Drill String Components" course, Sep. 2020

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- SPE “Gas Lift Well and System Modeling” course, Sep. 2020
- Kappa “PL execution, interpretation & Emeraude Analysis” course, Nov 2017
- Safety, Sea Survival, HUET, Basic F.F., First Aid and H2S, by SMTC Global & KISSS, Oct 2015
- Coaching Certificate, by Saman Andish Co, Dec 2014
- OXY recommendation, July 2014
- SPE “Applied Petroleum Geo-mechanics” advanced course, January 2013
- Kappa Ecrin Well Testing Qualification Certifying, Jan 2011
- Dr. Ghalambor Formation Damage Course Certificate, May 2010
- Schlumberger “PLT/PSP measurements, interpretation & operation” course, Feb 2010
- FEKETE “F.A.S.T well test software” training course, June 2009
- **National (Domestic)**
- Material Selection Based on NACE ISO 15156 for Drilling and Completion, Fan Afarin Pars Kish, Dec 2023
- RIPI-NIOC “Applied Petrophysic” course, Jun 2013
- NISOC-NIOC “Geomechanic modeling (GEM or MEM)” course, May 2012
- NISOC-NIOC “Rock mechanic related to fracturing” course, Sep 2011
- NISOC-NIOC “Pressure Transient Analysis and Well Testing Operation” course, Aug 2010
- NISOC-NIOC “Flow modeling using Pipesim software” course, Jun 2010
- NISOC-NIOC “Downhole Well Operation” course, Jul 2009
- NISOC-NIOC “Advanced Well Testing - F.A.S.T. WellTesting Software” course, May 2009
- NISOC-NIOC “Well Test Operation and Design; Pressure Transient Analysis” course, Feb 2009
- Tehran University & KEP Co. “Operation Engineering/Intervention” course, May 2008
- NISOC New staff recruitment training courses including Drilling-completion fluids, Cement Technology, Casing and cementing, well control, XMT, Coiled Tubing, Workover and Etc.

### Instructor (Teaching Experience)

- Well Modeling & Testing Analysis Training for BOLIVIAN Petroleum Engineers, in a cooperation of NIOC with Bolivia Petroleum Ministry in 2013, Ahvaz
- PIPESIM-Prosper Software (Well testing, CT N2 Lifting Design) Training for OEOC, 2020, Ahvaz
- GOHFER Software (Fracturing Design & Analysis) Training, for NISOC Engineers in 2016, Ahvaz
- Fekete Well testing Software Training for POGC Petroleum Engineers, in 2013, Ahvaz

### Carrier Awards and Honors

- ZNV Appreciation Letter – Dec, 2019
- Presenting SPE-193167-MS technical paper in ADIPEC 2018 Capital suite 05 session, Nov 2018
- Certificate for “Hydraulic Fracturing Engineering”, OXY Company - 2014
- Certification in “Applied Geomechanic Petroleum Engineering”, Dr. V. Rasouli - January 2013
- Certification in “Production Optimization & Performance Analysis”, Dr. F.H. Escobar - 2012
- Certification in “rock-mechanics and fracturing”, Dr. M.A. Aghighi - 2012
- KAPPA official and exclusive agent in IRAN Qualification certifying for Ecrin Software, 2011
- Certification in “Practical Formation Damage”, Prof. Ghalambor - 2010

### Papers (publications are available in ORCID; [0009-0001-0866-5010](#))

1. All Story Happened in Iranian 1<sup>st</sup> HPHT Gas Well Completion & Testing - Lessons Learnt & Practices, **SPE-229497-MS**, ADIPEC 2025 [\[Link\]](#)
2. Successful Design And Execution Of Dual Leg Selective And Matrix Acidizing Using Open Hole Inflatable Packer For The First Time In A Horizontal Carbonate Well: A Case Study, **SPE-229918-MS**, ADIPEC 2025 [\[Link\]](#)
3. Consistence Analysis of Pressure Transient Analysis (PTA) using Geology Studies Results: A Case Study of the Block Size Effect on Productivity Index, **8<sup>th</sup> international oil and gas conference** (IOGC) [\[under review\]](#)
4. Investigation of Asphaltene Deposition in one of the Southern Iranian Oil Fields Producing under Miscible Gas Injection, **8<sup>th</sup> international oil and gas conference** (IOGC) [\[under review\]](#)
5. A Machine Learning-based Approach to Predict Vs in a Deep Carbonate Reservoir [\[under review\]](#)
6. Comparative Analysis Of Blended And Stacked Models Versus Traditional Methods To Predict Shear Wave Velocity [\[under review\]](#)
7. Application of Blend and Stack Machine Learning Models to Predict Shear Wave Velocity Comparing to Greenberg-

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Castagna Method – A Case Study in One of South West Iranian Deep ISC7666\_539706, Feb 2023 [\[Link\]](#)

8. Comprehensive Workflow of Matrix Acidizing Design and Analysis in Multi-Layer / Multi-Zone Reservoir - Offshore Case History, **SPE-193167-MS**, ADIPEC 2018 [\[Link\]](#)
9. Successful 'Over-Balanced Coiled Tubing Perforation' (OB-CT PRF) Well Intervention; Analytical & Statistical Lesson Learnt; Iran Case Study of Deviated HPHQ Wells, The Latin American Perforating Symposium 2018 SLAP [\[Link\]](#)
10. Comprehensive Study on Surface Flow Rates/Velocities Determination in Gas Condensate Producing Well through Chokes and Flexible Pipes, 2015 [\[Link\]](#)
11. Water Curtain Design using Numerical Simulation for Offshore Rigs in South Pars Field Development, 2015 [\[Link\]](#)
12. Challenges in Well Testing Data from Multi-layered Reservoirs; a Field Case, 2012 [\[Link\]](#)
13. Severe Loss of Well Productivity in Gas Condensate Carbonate Reservoirs: A Case Study, 2012 - NIOC Journal [\[Link\]](#)
14. A Comparative Study of Reservoir Average Pressure Calculation, Using Flowing Pressure Data and Well test Analysis, in one of the Southwest Iranian Carbonate Oil Reservoir, 2011 [\[Link\]](#)