Training Title

COMPLETION & STIMULATION ENGINEER: HYDRAULIC FRACTURING & ZONAL ISOLATION

Training Duration
5 days

Training Venue and Dates

Completion & Stimulation Engineer: Hydraulic Fracturing & Zonal Isolation	5	07th to 11th July 2025	$.5,500	Dubai, UAE.

Training will be conducted in any of the 4 or 5 star hotels.

Training Fees
- *5,500 US$ per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch.*

Training Certificate
Prolific Consultants FZE Certificate of Course Completion will be issued to all attendees.

COURSE OVERVIEW
Optimize well productivity and maximize reservoir potential with our comprehensive Hydraulic Fracturing: Design and Implementation Training Course. This program is designed to equip you with the essential skills to plan, execute, and analyze hydraulic fracturing operations, ensuring efficient stimulation and enhanced hydrocarbon recovery. In today's complex unconventional reservoirs, mastering hydraulic fracturing is crucial for organizations seeking to achieve economic viability and operational success. This training course provides hands-on experience and expert guidance, empowering you to apply cutting-edge fracturing techniques for practical, real-world applications.

This training delves into the core concepts of fracture mechanics, fluid dynamics, and proppant transport, covering topics such as fracture modeling, treatment design, and post-fracture analysis. You'll gain expertise in using industry-standard tools and techniques to hydraulic fracturing design and implementation, meeting the demands of modern oil and gas operations. Whether you're a completion engineer, reservoir engineer, or operations manager, this course will empower you to drive strategic fracturing decisions and optimize well performance.

COURSE OBJECTIVES:
- *Understand the fundamentals of hydraulic fracturing: design and implementation.*
- *Master fracture mechanics and modeling techniques.*
- *Utilize fracturing fluid and proppant selection.*

- *Implement treatment design and execution strategies.*
- *Design and build robust post-fracture analysis and evaluation plans.*
- *Optimize fracture stimulation using advanced simulation and monitoring.*
- *Troubleshoot and address common challenges in fracturing operations.*
- *Implement environmental compliance and safety standards.*
- *Integrate fracturing with reservoir characterization and production data.*
- *Understand how to manage large-scale fracturing projects.*
- *Explore emerging fracturing technologies (e.g., refracturing, advanced diverters).*
- *Apply real world use cases for hydraulic fracturing in various reservoir scenarios.*
- *Leverage fracturing tools and frameworks for efficient design and execution..*

SUITABLE FOR:
- ✓ *Completion Engineers*
- ✓ *Reservoir Engineers*
- ✓ *Operations Managers*
- ✓ *Production Engineers*
- ✓ *Geologists*
- ✓ *Petrophysicists*
- ✓ *Field Supervisors*

TRAINING METHODOLOGY:
A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions, and motivate everybody find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.
Very useful Course Materials will be given.

COURSE OUTLINE :-

Module 1:
Introduction to Hydraulic Fracturing
- *Fundamentals of hydraulic fracturing: design and implementation.*
- *Overview of fracturing principles and methodologies.*
- *Setting up a fracturing treatment design framework.*
- *Introduction to fracturing simulation and analysis tools.*
- *Best practices for hydraulic fracturing.*

Module 2:
Fracture Mechanics and Modeling
- *Mastering fracture mechanics and modeling techniques.*

- *Utilizing fracture propagation and containment analysis.*
- *Implementing discrete fracture network (DFN) modeling.*
- *Designing and building fracture models.*
- *Best practices for fracture modeling.*

Module 3:
Fracturing Fluid and Proppant Selection
- *Utilizing fracturing fluid and proppant selection.*
- *Implementing fluid chemistry and rheology analysis.*
- *Utilizing proppant transport and placement optimization.*
- *Designing and building fluid and proppant programs.*
- *Best practices for fluid and proppant.*

Module 4:
Treatment Design and Execution
- *Implementing treatment design and execution strategies.*
- *Utilizing stage design and sequencing.*
- *Implementing pressure analysis and control.*
- *Designing and building fracturing treatment schedules.*
- *Best practices for treatment design.*

Module 5:
Post-Fracture Analysis and Evaluation
- *Designing and build robust post-fracture analysis and evaluation plans.*
- *Utilizing production data analysis and decline curve analysis.*
- *Implementing pressure transient analysis and rate transient analysis.*
- *Designing and building post-fracture evaluation reports.*
- *Best practices for post-fracture analysis.*

Module 6:
Fracture Stimulation Optimization
- *Optimizing fracture stimulation using advanced simulation and monitoring.*
- *Utilizing microseismic monitoring and analysis.*
- *Implementing real-time data analysis and optimization.*
- *Designing and building fracture optimization plans.*
- *Best practices for fracture optimization.*

Module 7:
Troubleshooting Fracturing Challenges
- *Troubleshooting and addressing common challenges in fracturing operations.*
- *Analyzing fracturing data and operational issues.*
- *Utilizing problem-solving techniques for resolution.*

- **Resolving common fracturing execution errors.**
- **Best practices for troubleshooting.**

Module 8:
Environmental Compliance and Safety
- **Implementing environmental compliance and safety standards.**
- **Utilizing water management and waste disposal techniques.**
- **Implementing emissions control and regulatory compliance.**
- **Designing and building environmental management plans.**
- **Best practices for compliance.**

Module 9:
Integration with Reservoir Data
- **Integrating fracturing with reservoir characterization and production data.**
- **Utilizing seismic data and geological models.**
- **Implementing reservoir simulation and data integration.**
- **Designing and building integrated fracturing plans.**
- **Best practices for data integration.**

Module 10:
Large-Scale Fracturing Projects
- **Understanding how to manage large-scale fracturing projects.**
- **Utilizing project management tools and techniques.**
- **Implementing program evaluation and reporting.**
- **Designing scalable fracturing solutions.**
- **Best practices for project management.**
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Module 11:
Emerging Fracturing Technologies
- **Exploring emerging fracturing technologies (refracturing, advanced diverters).**
- **Utilizing refracturing for well re-stimulation.**
- **Implementing advanced diverters for zonal isolation.**
- **Designing and building advanced fracturing systems.**
- **Optimizing advanced applications for specific use cases.**
- **Best practices for advanced applications.**

Module 12:
Real-World Fracturing Use Cases
- **Applying real world use cases for hydraulic fracturing in various reservoir scenarios.**
- **Utilizing hydraulic fracturing in shale gas reservoirs.**
- **Implementing hydraulic fracturing in tight oil formations.**
- **Utilizing hydraulic fracturing in carbonate reservoirs.**

- *Implementing refracturing in mature fields.*
- *Best practices for real-world applications.*

Module 13:

Fracturing Tools Implementation
- *Leveraging fracturing tools and frameworks for efficient design and execution.*
- *Utilizing fracturing simulation software and databases.*
- *Implementing data analysis and visualization tools.*
- *Designing and building automated fracturing workflows.*
- *Best practices for tool implementation.*

Module 14:

Monitoring and Metrics
- *Implementing fracturing monitoring and metrics.*
- *Utilizing fracturing performance indicators and KPIs.*
- *Designing and building monitoring systems for fracturing projects.*
- *Optimizing monitoring for real-time insights.*
- *Best practices for monitoring.*

Module 15:

Future Trends in Hydraulic Fracturing
- *Emerging trends in fracturing technologies and applications.*
- *Utilizing digital fracturing and automation.*
- *Implementing advanced sensor and monitoring systems.*
- *Best practices for future fracturing management.*

Case Studies, Last Day Review, Discussions & Pre & Post Assessments will be carried out.

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