



Drilling Operations Management & Optimization PFE01



**Oil & Gas
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Drilling Operations Management & Optimization

Module 1

(PFE01)

Course Description:

1. Overview of Drilling Operations
2. Reiteration of goals and objectives of well drilling & construction
3. Areas of Control in Well Drilling Operations:
 - Type of well
 - Accurately define well objective (s) and service life
 - Identify mandatory and optional elements of well design
 - ◊ Hole diameter, Pressure capacity, Well inclination with the reservoir/target/ payzone
 - ◊ Casing/hole diameter clearance, Casing or liner?
 - ◊ Mud type/rock reaction and mingling
 - Logistics issues (storehouse, quality assurance, property protection, etc).
 - Well location, Spudding and Completion deadlines
 - Data requirements (also level of accuracy needed)
 - Contract and agreement terms
4. Areas of Zero Control in Well drilling Operations
 - Weather
 - Environmental and Regulatory restrictions
 - Company policies and procedures
 - Legal requirements
5. Theory of drilling risk, elements, measurement/evaluation of risk, control methods
 - Methods of data collection and data management
 - Importance of accurate reporting
6. Key Performance Indicators - Decide on relevant KPIs
 - Common KPIs – include: Time based, Progress based, Cost based, Event based
7. Real time management of well construction performance
 - Monitoring
 - Management drilling design
 - Comparison with real time & predicted measurement outputs
 - Alarms
 - Revision of predicted performance
8. Real-time Monitoring solutions – MWD, LWD etc
 - Available Resources

9. Benchmarking of successful well drilling
 - Benchmarking Analysis
 - Accuracy / reliability of benchmarks
10. Create time schedule of well (time/depth curve, identify major timeline events and planning decision points)
11. Confirmation of production schedules

Drilling Operations Management & Optimization Module 2

12. Operations forecasting and Risk mapping
13. Introducing Planning and Estimating: Work Flow, Project Cost Estimating
14. Methods of defining technical limits
15. Identifying and confirming the current technical limits of various phases of well construction project
16. Identify contingencies requiring pre-planning
17. Optimization Elements
 - Stuck pipe prevention
 - Drill String Design
18. Objective of optimal drill string/BHA design
19. Tools to optimize design
 - Bit selection – Use of MEM, ROP & bit run prediction
20. Elements for Optimization
 - Operation Planning
 - Critical path issues
 - Non-critical path issues
 - Drilling Fluid
 - Environmental constraints
 - Wellbore stability
 - Cuttings protection
 - Fluid management
21. Drilling Optimization principles
 - Optimization Process
 - Software tools
 - Lessons learned
 - Task analysis

Who Should Attend?

- Dedicated site supervisors identified and communication standard protocols established
- Team Management and live communication

Venue:

Please visit our website or contact us for details.

Tuition:

Module 1: £2,950 + VAT

Module 2: £2,950 + VAT

Module 1&2: £4,750 + VAT

5 easy ways to
register or to
make an enquiry:

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