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COURSE BROCHURE

Downhole Remediation for Mature Well Production Training Course

31 January – 4 February 2027
Muscat

Downhole Remediation for Mature Well Production Training Course

Ref: 2075_76454 **Date:** 31 January – 4 February 2027 **Location:** Muscat **Fees:** 6500 GBP

Downhole Remediation for Mature Well Production is a 1-week training course for production and workover engineers who select and justify interventions that restore output from declining wells, ending with a remediation candidate portfolio for their field. As reservoirs deplete, water cuts rise and scale or sand restrict inflow, so well-chosen treatments now add barrels more cheaply than new drilling. Jupiter Prime Training offers this downhole remediation course.

Why Downhole Remediation for Mature Well Production Matters Now

Three pressures shape remediation choices today: maturing fields where most output comes from wells past their plateau, tighter capital that favours low-cost barrels over new wells, and stricter limits on produced water handling and disposal. An operator that diagnoses the true cause of decline and matches it to the right treatment lifts rates and cuts water handling; one that treats symptoms wastes rig time and can damage the formation. The course rests on nodal analysis, decline curve analysis, skin factor evaluation and the Chan diagnostic plots for water and gas problems.

Who Gains Most from Downhole Remediation for Mature Well Production

- Engineers responsible for daily well surveillance and production optimisation
- Specialists who design and supervise workover and coiled tubing interventions
- Engineers who plan chemical treatments for scale, wax and asphaltene deposits
- Petroleum engineers who rank wells for intervention budgets
- Completion engineers responsible for sand control and zonal isolation

Field asset groups gain most when surveillance, intervention and chemical treatment members attend together and agree one candidate ranking method.

Downhole Remediation for Mature Well Production Capabilities

Participants move from a declining production curve to a ranked list of treatable wells, each with a cause, a remedy and an expected gain.

- Diagnose decline causes using inflow, skin and water-oil ratio evidence — intervention selection
- Design water and gas shut-off options matched to channel, coning or high-permeability streaks — reservoir engineers
- Specify scale and sand treatments from water chemistry and grain size data — chemical and completion specialists
- Weigh matrix acidising, fracturing and perforation options against formation risk — field managers
- Calculate incremental rate, payback and risked gain per candidate — budget holders
- Communicate candidate rankings and post-job results in clear terms — asset leadership

Key Downhole Remediation for Mature Well Production Terms

- Skin factor — a dimensionless value describing extra pressure loss near the wellbore from damage, perforations or flow geometry.
- Water coning — upward movement of bottom water toward perforations when drawdown exceeds what the reservoir can hold back.
- Relative permeability modifier — a polymer treatment that cuts water flow more than oil flow without full zonal isolation.
- Scale squeeze — injection of inhibitor into the formation so it releases slowly and prevents mineral deposits in production.
- Matrix acidising — injection of acid below fracture pressure to dissolve damage and restore permeability near the wellbore.
- Candidate selection — the structured ranking of wells by treatable cause, expected gain and risk before committing intervention spend.

Downhole Remediation for Mature Well Production Day by Day

Day 1: Diagnosing Mature Well Decline

- Decline Curve Analysis — Separating Reservoir Depletion From Wellbore Problems
- Nodal Analysis of Inflow and Outflow — Locating the Restriction
- Pressure Transient and Skin Evaluation — Quantifying Near-Wellbore Damage
- Chan Diagnostic Plots — Identifying Coning Versus Channelling
- Production Logging Interpretation — Pinpointing Water and Gas Entry

Day 2: Water and Gas Shut-Off

- Mechanical Plugs, Straddles and Patches — Isolating Watered-Out Zones
- Cement Squeeze Techniques — Repairing Channels Behind Casing
- Gel and Polymer Systems — Blocking High-Permeability Streaks
- Relative Permeability Modifiers — Reducing Water Without Losing Oil
- Gas Cap Breakthrough Control — Choosing Recompletion or Isolation

Day 3: Scale, Sand and Deposit Remedies

- Scale Prediction From Water Chemistry — Planning Inhibitor Squeezes
- Mechanical and Chemical Scale Removal — Choosing Milling or Dissolvers
- Sand Production Assessment — Deciding Screens, Gravel Packs or Consolidation
- Wax and Asphaltene Treatments — Restoring Tubing and Near-Wellbore Flow
- Coiled Tubing Cleanouts — Matching Conveyance to Well Condition

Day 4: Stimulation Choices and Candidate Ranking

- Matrix Acidising Design for Sandstone and Carbonate — Fluid Selection
- Small Hydraulic Fracture Treatments — When Damage Bypass Pays
- Reperforation and Extended Perforating — Improving Inflow Geometry
- Candidate Screening Matrix — Ranking Wells by Cause and Gain
- Risked Economic Evaluation — Payback and Success Probability per Job

Day 5: Practising the Remediation Candidate Portfolio

- Field Well Set Diagnosis — Applying Decline and Nodal Methods
- Treatment Matching Exercise — Applying Shut-Off and Deposit Options
- Stimulation Design Review — Applying Acid and Perforation Choices
- Post-Job Evaluation Plan — Measuring Real Against Predicted Gain
- Remediation Candidate Portfolio — Completing the Ranked Field List

Applying Downhole Remediation for Mature Well Production After the Course

- Run Chan diagnostic plots on the ten highest water-cut wells and classify each as coning, channelling or normal displacement.
- Screen current shut-in and low-rate wells with the candidate matrix and present the top five to the asset leader.

Downhole Remediation for Mature Well Production Questions FAQ

What is Downhole Remediation for Mature Well Production and why does it matter now?

It is the diagnosis and treatment of problems that cut output from ageing wells. With capital tight and fields maturing, restoring existing wells is often the cheapest source of extra production.

Which roles gain most from Downhole Remediation for Mature Well Production?

Production, workover and completion engineers gain most. Petroleum engineers who rank wells for budgets also benefit because the course links diagnosis directly to expected gain.

How does Downhole Remediation for Mature Well Production differ from a well integrity course?

It targets production gain rather than barrier condition. A well integrity course assesses casing, cement and barriers for safety and life extension, while this one diagnoses inflow problems and selects treatments that lift rates.

What do you bring back from Downhole Remediation for Mature Well Production?

You bring back a method to turn declining wells into a ranked set of treatable candidates. It includes diagnostic routines, treatment matching rules and a risked gain estimate for each well.

Downhole Remediation for Mature Well Production: The Way Forward

The remediation candidate portfolio lists each treatable well with its decline cause, chosen remedy and risked gain. Its first use is setting the next intervention budget and rig or coiled tubing schedule. Production engineers and asset leaders use it together, and the screening thresholds deserve revisiting once post-job results show which treatments delivered their predicted gain.