JUPITER PRIME
Consulting • Training • Advisory
جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

# Tight and Shale Play Appraisal and Development Training Course

14 – 18 March 2027
Doha

**jupiterprime.uk**
info@jupiterprime.uk
Registered in the United Kingdom and Saudi Arabia

# Tight and Shale Play Appraisal and Development Training Course

**Ref:** 2942_111702 **Date:** 14 – 18 March 2027 **Location:** Doha **Fees:** 6500 GBP

Tight and Shale Play Appraisal and Development is a 1-week training course for geoscientists, reservoir engineers and completion engineers who build an unconventional play development outline. Operators now judge low-permeability acreage on how quickly appraisal wells prove repeatable productivity across benches and pads. Jupiter Prime Training delivers this course on tight and shale play appraisal and development.

## Why Tight and Shale Play Appraisal and Development Matters Now

Three forces shape low-permeability resource work today. Capital providers expect each drilling campaign to show falling unit costs, partners and host governments want evidence that resource estimates rest on measured well behaviour, and water and surface footprint draw community attention. An operator that reads source rock, sweet spots and early production carefully sets spacing before costly infill mistakes; one that extrapolates from a few strong wells risks stranded pads. The course rests on integrated subsurface practice, linking geochemistry, petrophysics, geomechanics and decline analysis.

## Who Gains Most from Tight and Shale Play Appraisal and Development

- Geoscientists who map organic richness, maturity and brittleness to rank acreage
- Reservoir engineers who build type curves and recoverable volume estimates
- Completion engineers who choose lateral length, stage count and proppant loading
- Petrophysicists who calibrate log-derived porosity, saturation and kerogen content
- Asset planners who convert well results into drilling schedules and pad layouts

Asset teams gain most when a geoscientist, a reservoir engineer and a completion engineer from the same play attend together.

## Tight and Shale Play Appraisal and Development Capabilities

Participants move from scattered pilot results to a defensible view of where and how densely to drill.

- Assess source rock richness, thermal maturity and mineralogy — the acreage ranking for appraisal wells
- Design a pilot well sequence that separates geology effects from completion effects — the appraisal budget
- Weigh lateral spacing and stacking options against parent–child interference — the infill development decision
- Calculate type curves and estimated ultimate recovery from early decline data — the reserves booking
- Test breakeven and well economics under price and cost ranges — the partner sanction discussion
-

Communicate play maturity and residual uncertainty — management and joint venture partners

## Key Tight and Shale Play Appraisal and Development Terms

- Total organic carbon — the weight percentage of organic matter in a rock, a measure of source rock generation potential.
- Sweet spot — an area within a play where rock quality, pressure and brittleness combine to give above-average well productivity.
- Stimulated rock volume — the region around a horizontal well that hydraulic fracturing has connected to the wellbore.
- Parent–child interference — loss of productivity when a new well is placed close to an older, partly depleted neighbour.
- Type curve — a representative production profile built from analogue wells for forecasting new wells.
- Estimated ultimate recovery — the total volume a well is expected to produce over its life.

## Tight and Shale Play Appraisal and Development Day by Day

### Day 1: The Low-Permeability Resource Setting

- Continuous Accumulation Concepts — How Unconventional Plays Differ From Conventional Traps
- Source Rock Geochemistry and Maturity Windows — Oil, Condensate or Gas Acreage
- Pore Systems in Mudstones and Tight Sands — Storage and Flow Expectations
- Pressure Gradients and Overpressure Mapping — Productivity and Drilling Hazards
- Play Maturity Stages From Exploration to Manufacturing — Appraisal Spending Choices

### Day 2: Mapping Sweet Spots

- Petrophysical Evaluation of Kerogen and Clay Content — Net Pay Definition
- Brittleness and Mineralogy Indices — Landing Zone Selection
- Natural Fracture and Stress Orientation Mapping — Lateral Azimuth Choice
- Seismic Attribute and Thickness Grids — Acreage High-Grading
- Productivity Driver Cross-Plots — Ranking Geology Against Completion Effects

### Day 3: Wells, Spacing and Stimulation Choices

- Pilot Well and Science Pad Design — What Each Appraisal Well Must Prove
- Lateral Length and Stacked Bench Placement — Pad Layout Decisions
- Well Spacing Tests and Interference Monitoring — Infill Density
- Stage Count, Cluster and Proppant Intensity Trends — Completion Cost Versus Productivity
- Fracture Diagnostics and Microseismic Interpretation — Stimulated Volume Confidence

## Day 4: Decline Behaviour and Play Economics

- Rate Transient Signatures in Horizontal Wells — Flow Regime Identification
- Decline Curve Fitting With Terminal Decline Limits — Recovery Forecasts
- Type Curve Areas and Normalisation — Forecasting Undrilled Locations
- Well Cost Build-Up and Learning Curves — Unit Development Cost
- Breakeven and Inventory Depth Analysis — Drilling Sequence and Capital Pacing

## Day 5: Practising the Unconventional Play Development Outline

- Sweet Spot Ranking Exercise on a Case Play — Choosing First Development Area
- Spacing and Stacking Scenario Comparison — Selecting a Base Case Density
- Type Curve and Economics Sensitivity Runs — Defining Sanction Thresholds
- Residual Uncertainty and Further Appraisal Register — Data Still Needed
- Unconventional Play Development Outline Assembly — Presenting the Recommendation to Partners

## Applying Tight and Shale Play Appraisal and Development After the Course

- Rebuild the productivity driver cross-plots for your current acreage with completion colleagues.
- Run a spacing scenario comparison on the next pad using nearby interference evidence.

## Tight and Shale Play Appraisal and Development Questions FAQ

### What is tight and shale play appraisal and development, and why does it matter now?

It is the work of proving where a low-permeability play produces reliably and how densely to drill it. It matters now because investors and partners expect each campaign to lower unit cost and to rest forecasts on measured well behaviour.

### Which roles gain most from tight and shale play appraisal and development training?

Geoscientists, reservoir engineers and completion engineers gain most, along with petrophysicists and asset planners.

### How does tight and shale play appraisal and development differ from a hydraulic fracturing design course?

It covers the whole play rather than one well's stimulation. It treats completion choices as one input alongside geochemistry, spacing, decline and economics.

## What do you bring back from tight and shale play appraisal and development training?

You bring back a draft play development outline built on a case dataset. It ranks sweet spots, sets spacing and links type curves to economics.

## Tight and Shale Play Appraisal and Development: The Way Forward

The unconventional play development outline first informs where the first development area should sit and at what well density. Asset leaders, partners and drilling planners use it to pace rigs and capital. After the first pads produce, revisit the type curves and spacing case, because early interference and decline data often change the inventory view more than any pre-drill map.