Advanced Techlog Formation Evaluation Training Course

10 – 14 October 2027
Johannesburg

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Ref: 1180_187150 **Date:** 10 – 14 October 2027 **Location:** Johannesburg **Fees:** 6000 Euro

Overview

Advanced Techlog Formation Evaluation Training Course is a one-week course for petrophysicists, formation-evaluation specialists, reservoir teams, well-log analysts, and subsurface professionals who need a Techlog Formation Evaluation Interpretation Pack. Participants connect Techlog well-log interpretation, petrophysical data quality control, lithology and porosity analysis, saturation modeling, and multimineral formation evaluation through traceable workflows and uncertainty review. Agile Leaders Training Center develops Techlog formation-evaluation practice.

Who Should Attend

- Teams responsible for petrophysical interpretation and formation evaluation
- Teams responsible for well-log loading, conditioning, and quality control
- Teams responsible for reservoir characterization and property integration
- Teams responsible for core, pressure, fluid, and log-data calibration
- Teams responsible for subsurface assurance, uncertainty, and technical reporting

The course assumes participants can interpret common open-hole logs and basic petrophysical equations; it leaves out software installation, vendor certification, tool physics design, and field-data acquisition.

Departments and Industries

The course supports departments and industries that evaluate subsurface formations and integrate wellbore evidence into reservoir decisions.

- Petrophysics, formation evaluation, geology, geophysics, and reservoir engineering teams
- Well-data management, drilling, completions, production, and subsurface assurance departments
- Exploration, development, energy-services, and well-logging organizations
- Carbon storage, geothermal, groundwater, and subsurface-resource projects
- Technical consulting, research, software support, and data-governance teams

Learning Objectives

By the end of this course, participants will be able to:

- Build governed Techlog projects and log-data views
- Diagnose depth, unit, environmental, and quality issues
- Apply lithology, shale-volume, and porosity workflows
- Compare clean and shaly-sand saturation models
- Evaluate multimineral results, calibration, and uncertainty
- Create integrated multiwell interpretation and reporting packs

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Course Agenda

Day 1: Techlog Project and Data Control

- Techlog Project Structure and Data-Governance Map
- Well, Dataset, Variable, and Unit Loading Checklist
- Depth Matching and Curve-Splice Control Workflow
- Environmental and Signal-Quality Correction Log
- Logview Design and Data-Quality Flag Track

Day 2: Lithology and Porosity Interpretation

- Zone and Formation-Top Management Framework
- Gamma-Ray and Shale-Volume Model Comparison
- Density-Neutron-Sonic Porosity Reconciliation
- Lithology Crossplot and Mineral-Response Template
- Core-to-Log Calibration and Assumption Register

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Day 3: Saturation and Fluid Evaluation

- Resistivity and Formation-Water Parameter QC Sheet
- Archie Clean-Formation Saturation Workflow
- Simandoux and Indonesian Shaly-Sand Comparison
- Dual-Water and Waxman-Smits Applicability Matrix
- Fluid Contact and Saturation-Height Evidence Plot

Day 4: Multimineral and Uncertainty Analysis

- Deterministic Multimineral Solver Configuration
- Mineral, Fluid, and Tool-Response Constraint Table
- Probabilistic Interpretation and Uncertainty Envelope
- Sensitivity Scenario and Parameter-Ranking Dashboard
- Multiwell Correlation and Net-Interval Summary

Day 5: Integrated Techlog Interpretation Practice

- Exercise: Condition Logs and Build Quality Tracks
- Exercise: Calculate Lithology and Porosity Outputs
- Exercise: Compare Saturation Model Results
- Exercise: Test Multimineral Uncertainty Scenarios
- Capstone Exercise: Techlog Formation Evaluation Interpretation Pack

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Practical Exercises

The course uses suggested activities that connect Techlog calculations with geological evidence, data quality, and reservoir interpretation.

- Suggested activity: condition a multi-vendor log suite and document rejected, repaired, and retained curves
- Suggested activity: reconcile lithology and porosity results against core evidence in a clastic and carbonate interval
- Suggested activity: compare clean and shaly-sand saturation results and explain model selection
- Suggested activity: present a multiwell interpretation with uncertainty ranges, net intervals, and review actions

FAQs

Who suits advanced Techlog formation evaluation training?

Petrophysicists, formation-evaluation specialists, reservoir teams, well-log analysts, and subsurface professionals suit the training. Participants should already interpret common open-hole logs and basic petrophysical equations.

How does Techlog formation evaluation differ from general well-log interpretation training?

Techlog formation evaluation combines governed data preparation, calculations, model configuration, calibration, uncertainty, multiwell comparison, and reporting inside a software workflow, while general training may focus on log concepts without an integrated project environment.

How are well logs quality-controlled in Techlog formation evaluation?

Well logs are quality-controlled by checking metadata, units, depth alignment, splices, environmental effects, signal behavior, borehole conditions, cross-curve consistency, and calibration evidence, then recording flags and corrective actions.

Which saturation models can Techlog formation evaluation compare?

Techlog formation evaluation can compare the Archie clean-formation method with shaly-sand approaches such as Simandoux, Indonesian, Dual Water, and Waxman-Smits when their assumptions and inputs suit the formation.

How is uncertainty managed in Techlog petrophysical interpretation?

Uncertainty is managed through documented assumptions, constrained mineral and fluid responses, parameter ranges, deterministic and probabilistic runs, sensitivity ranking, calibration checks, and reporting of interpretation envelopes.

Conclusion

Participants take back a Techlog Formation Evaluation Interpretation Pack containing governed data views, quality flags, lithology and porosity models, saturation comparisons, calibration records, multimineral results, uncertainty scenarios, and multiwell summaries. The pack makes each result traceable to inputs, assumptions, and evidence. It also aligns petrophysics, geology, reservoir, and assurance teams around review decisions.