



## SERVICE DATA SHEET

# RESERVOIR MONITORING

All over the world, clients choose ANSA's specialist formation and reservoir data analysis services and state-of-the-art Pulsed Neutron diagnostics techniques to better understand their assets.

We have delivered expert evaluation for a multitude of datasets, covering most technologies and a huge geographical diversity. Our independent log analysis experts have hands-on experience with RAS, RPM, RST, PNX, TMD, RMT, Raptor and PNN data amongst others.

We help operators and service companies to successfully perform a variety of diagnostics, including saturation (using Sigma, Carbon-Oxygen and Gas modes), lithology and porosity.

### ANSA PULSED NEUTRON ANALYSIS SERVICES

We offer vivid insight into the reservoir with a portfolio of specialist data analysis services: Sigma Analysis (or Pulsed Neutron Capture) to identify the total hydrocarbons behind the casing and perform time lapse saturation monitoring; Carbon Oxygen Analysis (or Pulsed Neutron Spectroscopy) to identify oil and quantify oil saturation; Gas Mode Analysis to identify and quantify gas saturation; Water Flow Analysis (or Oxygen Activation Logging) to determine water/gas flow behind the casing; and Silicon Activation for gravel pack and lithology evaluation.

### APPLICATIONS

- Identification and quantification of total hydrocarbons (oil and gas) in high salinity environments / liquid hydrocarbons (oil) in mixed or low salinity environments
- Identification and quantification of gas independent of the salinity in place
- Location of fluid contacts (gas/oil/water)
- Porosity and lithology evaluation
- Saturation time-lapse monitoring
- Identification of bypassed hydrocarbons
- Reservoir depletion
- Evaluation of gravel pack quality
- Evaluation of stimulation intervention effectiveness (e.g. acidized zones or fracture height)
- Estimation of residual oil saturation (ROS) from log-inject-log surveys
- Identification of swept zones
- Detection of water/gas entry and flow behind casing
- Identification of injection or production profile in multi-string completions

### BENEFITS

- Identify and exploit bypassed hydrocarbons in mature or workover wells
- Evaluate new wells when open hole logs are unavailable
- Assess stimulation interventions and EOR projects
- Rapid and highly accurate results with ANSA's Fast Turn Around (FTA) service



## INDEPENDENT SERVICE

Our service is truly impartial.

We provide 100% unbiased data analysis and interpretation for all major service company cased hole data.

We can support your operations no matter which technology supplier or tool manufacturer is involved.

With ANSA, you get total transparency of your data.

## QUALITY GUARANTEED

We have a solid track record in data analysis spanning three decades and our team of expert analysts have more than 150 years of combined experience.

So your data really is in safe and qualified hands.

All ANSA reports adhere to our stringent quality control process as part of our robust quality management system, guaranteeing excellence every time in the survey overview and objectives; data quality; processing and analysis steps; interpretation results; and field paperwork.

## FLEXIBLE REPORTING

ANSA analysis products can be tailored to suit clients' individual requirements. We are happy to accommodate requests to deliver reports in a variety of file types, using specified software, and incorporating bespoke information.

## FAST TURN AROUND (FTA)

Our FTA analysis is a valuable add-on that can be provided for all ANSA services to propel the progress of a project.

WE TYPICALLY DELIVER AN FTA IN A MATTER OF HOURS FROM RECEIPT OF DATA:

- Ultra-fast response, definitive results
- Actionable intelligence when clients need it
- Global on-call support 24/7, 365 days a year

We can tailor our fast response to your needs, and our experts are on hand to QC data as it is acquired, providing clients with preliminary findings in real time.

The ANSA FTA prioritises and delivers agreed objectives in an accelerated timeframe, enabling immediate decision making and action at the point of operation.