

E&P Logs Analyzer - Designing Prediction Models

Business Challenges

- Lack of a single platform that enables E&P data and logs analysis from multiple logs spread across structured as well as unstructured data sets
- Constraints in implementation of an integrated framework to perform advanced 2D/3D visualization as well as AI/ML based model predictions across E&P logs from various operations

Business Objective

- Adopt On-demand, predictive and a ready implementation framework to perform digitization of LAS (for Splicing, Merging, etc.), WITS and other E&P logs.
- The architecture should allow to perform advanced 2D/3D visualization as well as AI/ML based model predictions against each log
- Platform should support application of AI/ML algorithms for forecasting and prediction of operational interventions
- It should allow flexibility to be deployed on clients' private cloud for enterprise access as well as access at the offshore project sites.

Solution

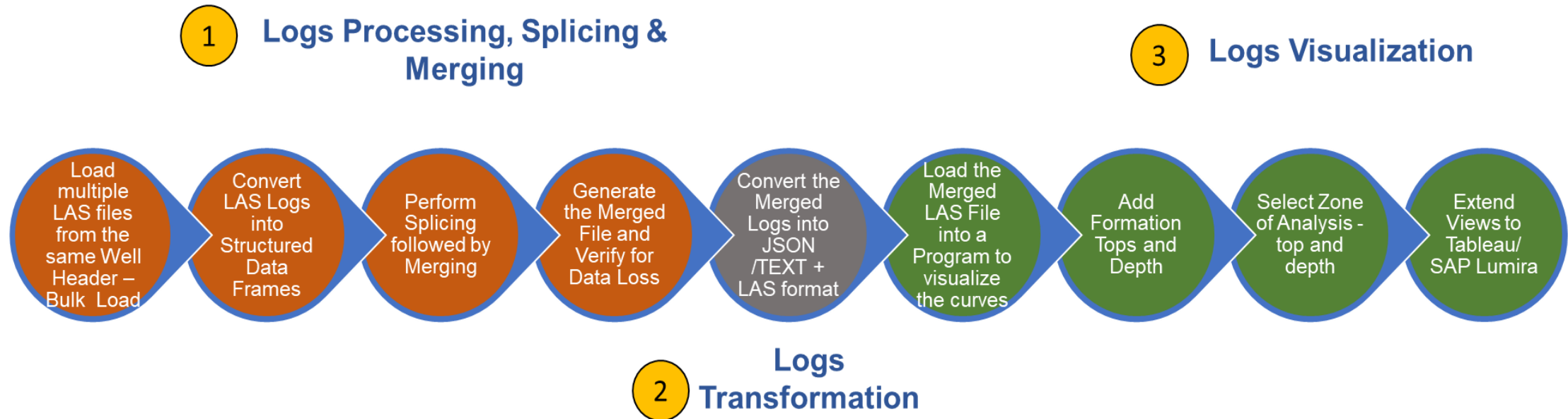
- Adapters built in for SEGY, LAS, WITS, WITSML, PRODML, RESQML, etc.
- Automation Scripts for Routine tasks like Splicing, Merging, Data Transformation
- E&P Logs Visualization extensions for Enterprise Reporting Tools
- Acts as a real-time console for sub-surface data visualization as well as analysis of different types of logs in their native formats.
- Supports in splicing and merging of LAS files. eases measurement and control of sub-surface parameters (relates to well log, drilling, production, reservoir)
- Manages to perform 2D/3D visualizations and generate specific domain models to understand ground conditions

Business Value

- On-demand/ 24*7 real-time/batch mode availability for multiple logs visualization as well interpretation by G&G team
- In-built AI/ML algorithms as a service for prediction modelling on logs in their native formats
- Get the solution plugged in as part of Digital Oil Field (DOF) strategy of the firm

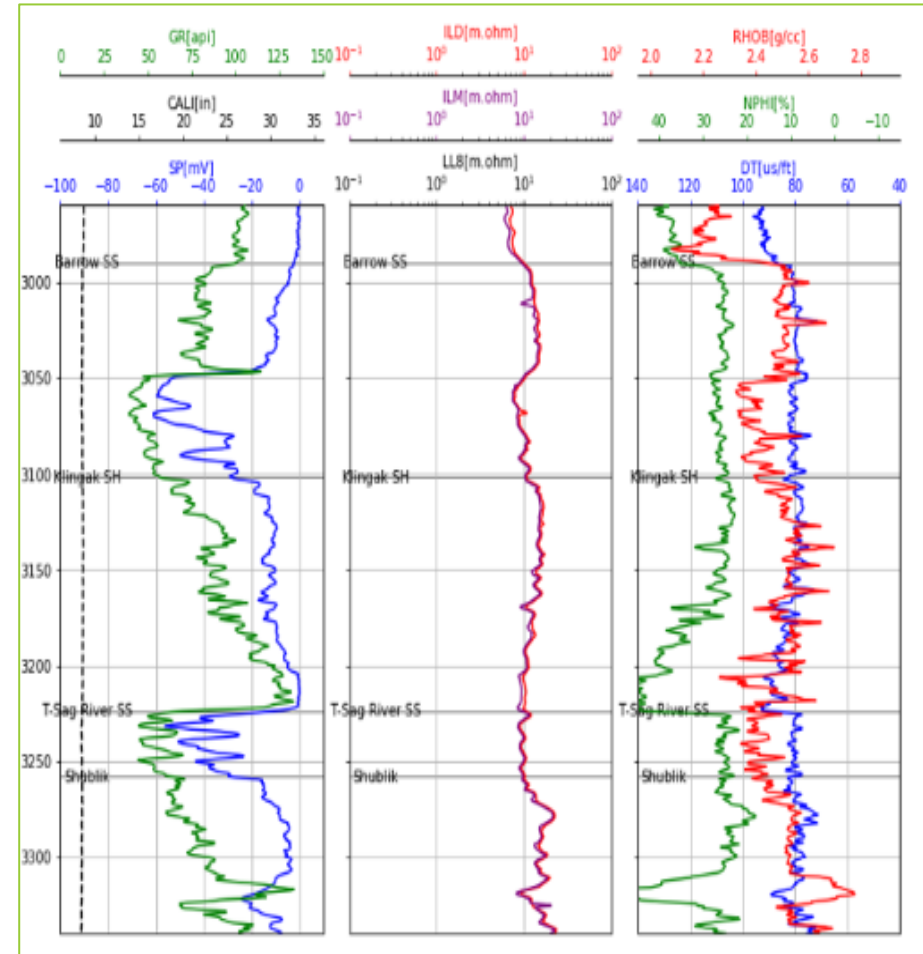
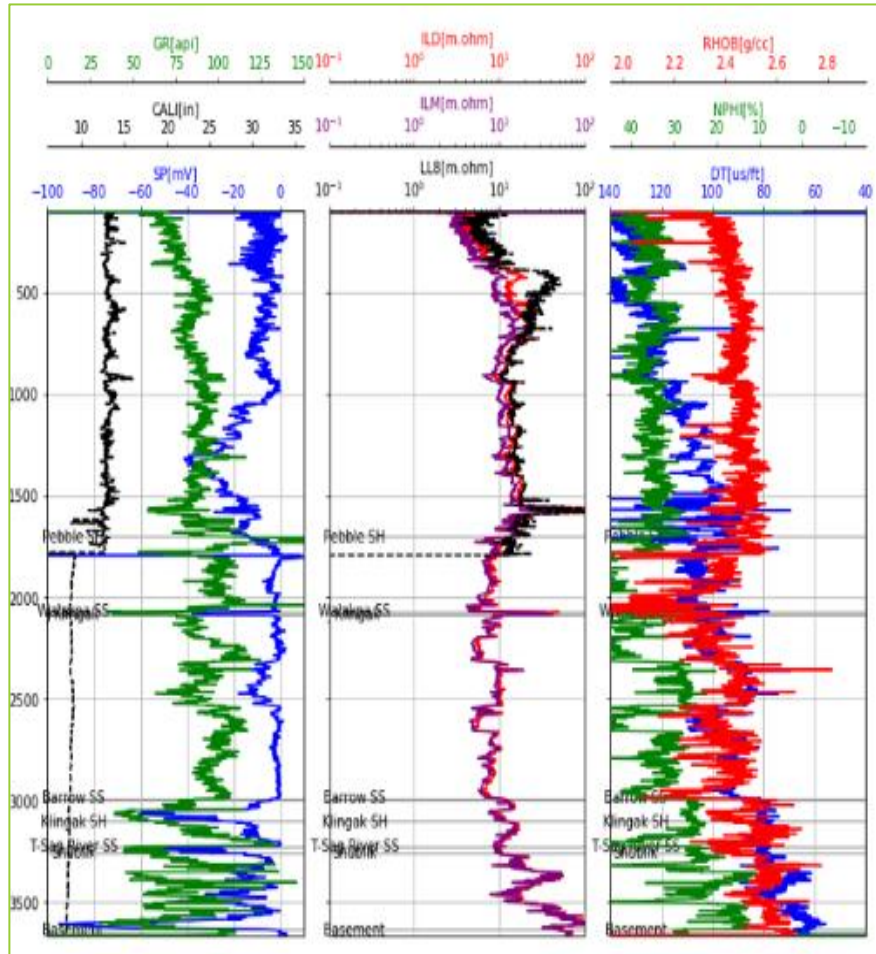
The client is an Indian oil and gas exploration and production company

Well Logs Digitization - Splicing & Merging



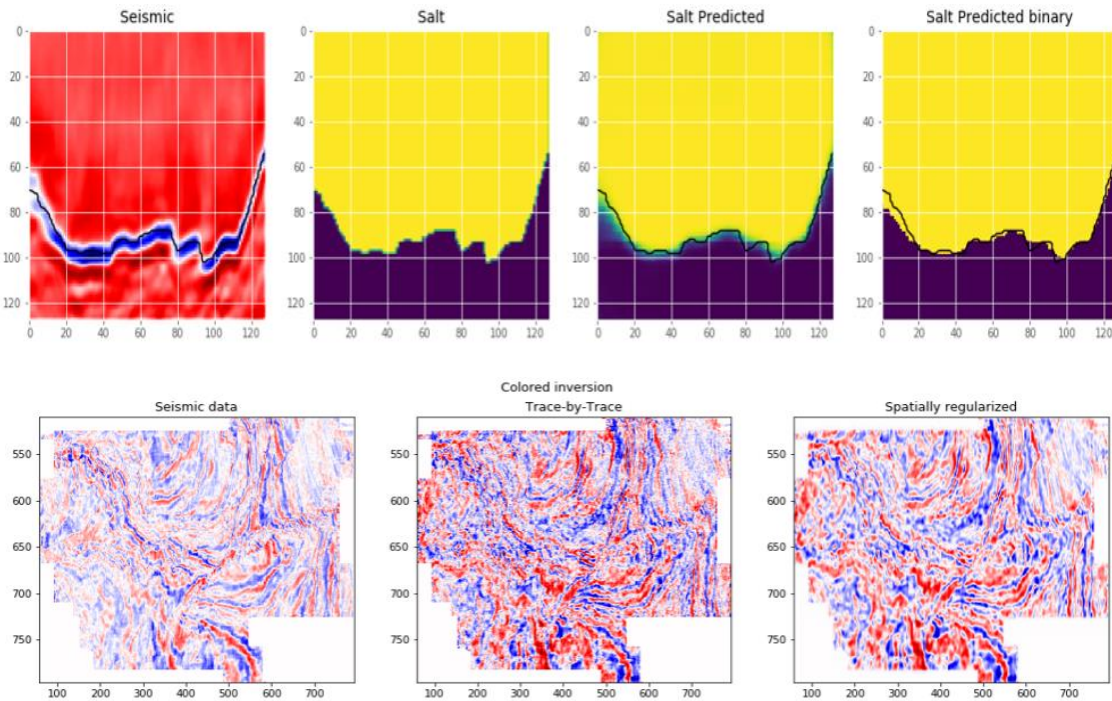
E&P Logs Analyzer - Designing Prediction Models

Well Logs Digitization - Splicing & Merging

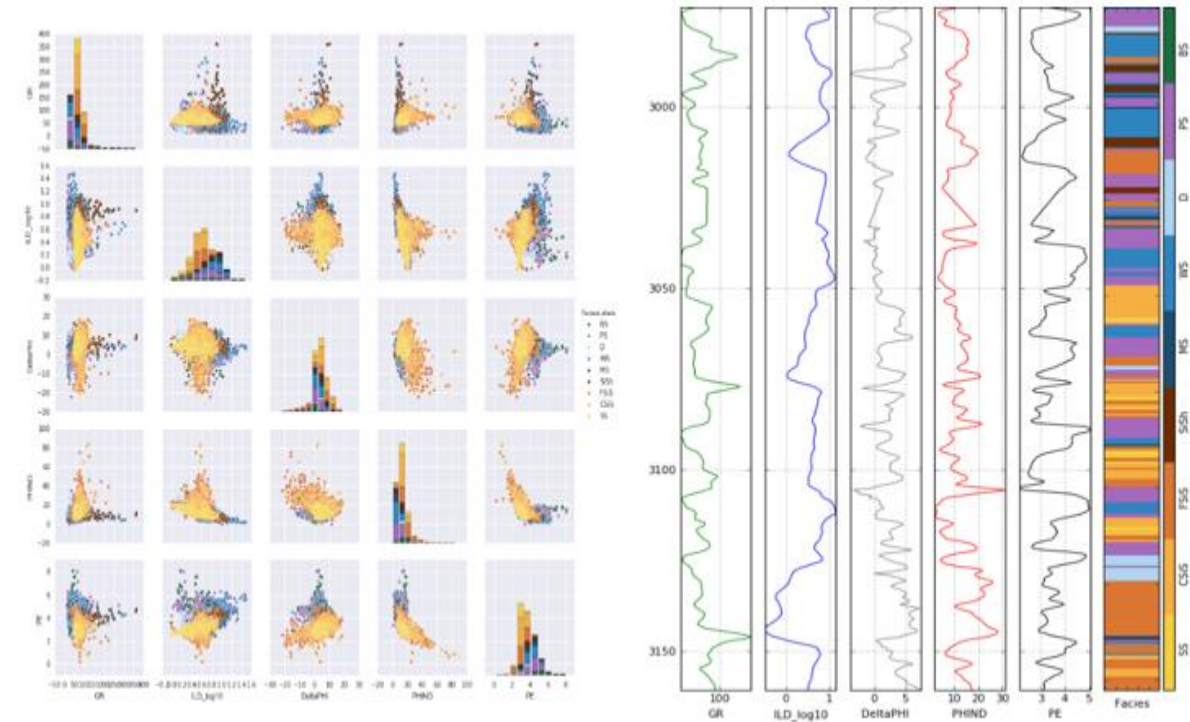


E&P Logs Analyzer - Designing Prediction Models

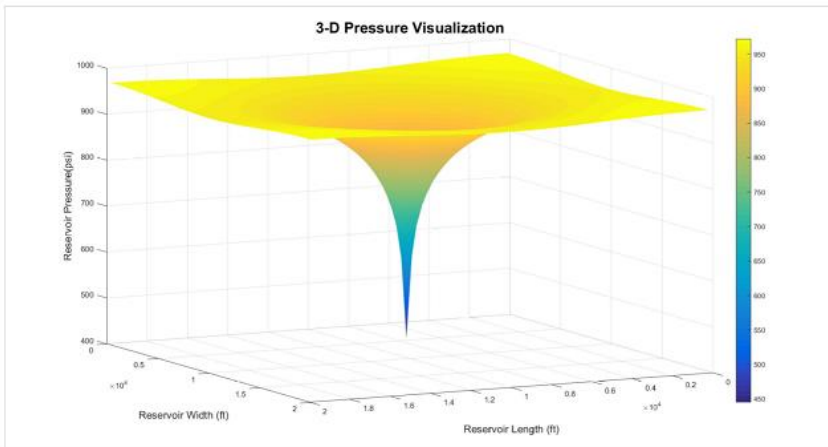
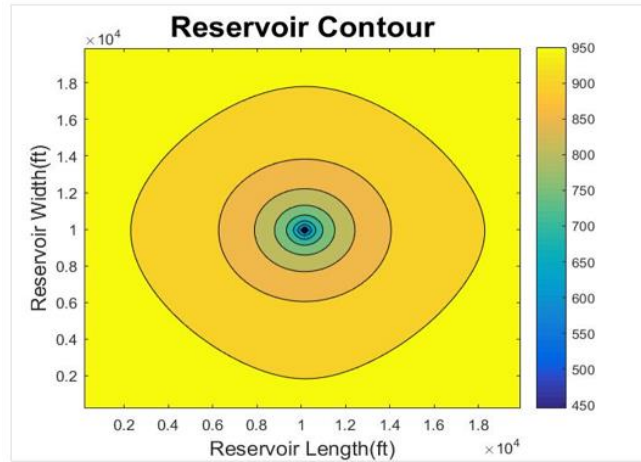
Building Predictions from Seismic



Building Predictions from Wells



E&P Logs Analyzer - Reservoir Drainage



E&P Logs Analyzer - Reservoir Models

