Case Study 2: Evaluation of Infill Potential and Reserves using Production Allocation (PA) and Reservoir Characterization Induces (RCI)

Challenge

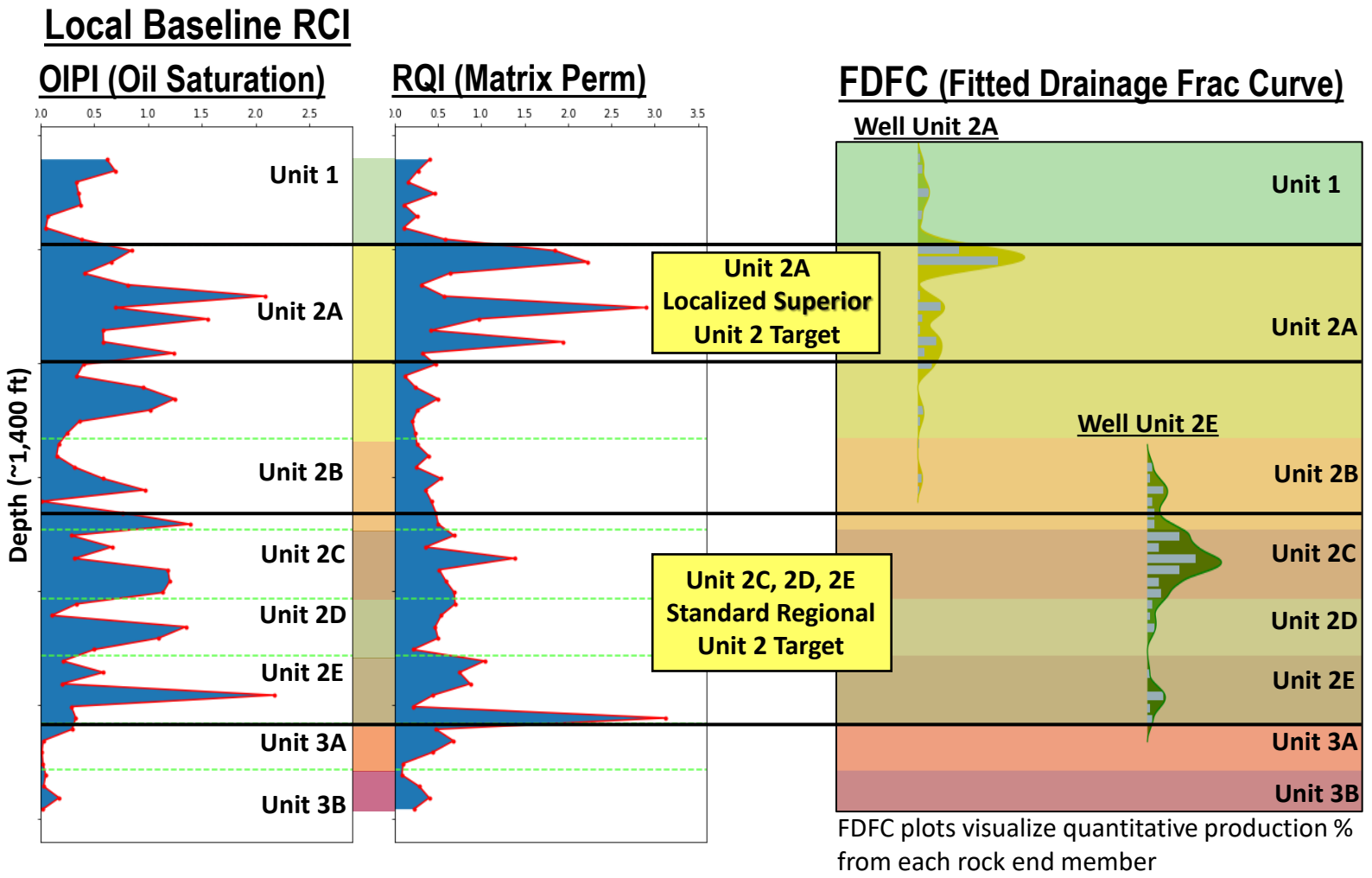
Delaware Basin Operator is evaluating a potential new bench for infills, and updating the reserves and well inventory

Process

- Cuttings from offset well, and separator produced oils from Well Unit 2E, were collected
- Geochemical fingerprint of oil extracted from the cuttings, and produced oils, were collected
- A regression model was built to allocate the produced oil back to its producing zone and calculate drainage frac height based on the geochemical fingerprint data

Results

- RCI identified a localized high oil saturation, high permeability zone in Unit 2A that had previously been downplayed
- ***Well Unit 2A was drilled and completed, it produced ~40% more oil in the first 6 months than Well Unit 2E in standard target***
- ***Operator increased reserves after results of new Unit 2A target***
- PA of both wells aided the operator in ***recovery factor calculation*** and constraining the frac and reservoir models



FDFC plots visualize quantitative production % from each rock end member

Revo Chem
Information in A Drop of Oil