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A geological regional case study for pressure, temperature, and salinity for the GoM using machine learning technology on unstructured data

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Summary

Traditionally explorationist working on a new area are given a huge amount of the data and will start with a regional study to identify plays and reservoirs on a basin scale. Once opportunities are identified, an area will be selected, and the study will move into a block scale. Drilling locations will then be defined, and further studies will be conducted on existing wells, looking at logs, cores and even samples. In this paper, we are going to investigate how the ingestion of previously conducted studies from unstructured data and Machine Learning (ML) can help to reverse this traditional workflow from basin-to-samples to extract valuable regional geological maps related to pressure, temperature and salinity from samples and production tests themselves.