

# Integrated Play and Prospect Assessment – Maximizing Regional Context and Local Detail

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Evaluation of undiscovered resource potential has traditionally utilized assessment strategies focused on either plays or prospects. Play assessments establish strong regional perspective by relating groups of similar prospects to geologic trends. Field size and chance of adequacy represent the group rather than individual features, thereby synthesizing essential local detail. Prospect assessment incorporates feature-specific information such as fault configuration or amplitude anomalies. The focus on detail, however, may mask regional relationships, especially for prospects that span multiple stratigraphic plays.

Integrated assessment can transcend the trade off between regional and local analyses and build upon the strengths of both. Play assessments advance “top down”, by refining the stratigraphic definition of plays and the specificity of families. Evaluations progress toward an end member where feature counts, sizes, and risks are based upon individual prospects. Prospect assessments advance “bottom up”, by generalizing specific observations into regional relationships that provide calibration for areas with less rigorous evaluations.

Success of the integrated approach requires flexible iteration between different scales of analysis, a common database for both play and prospect assessments, and analytical assessment support that merges and honors the data at all scales of analysis. Prospects are subdivided into segments that are completely contained within stratigraphic plays. Analyses must support risk and volume dependency relationships both within individual features and among features. The play-level fraction of each prospect becomes part of the regional evaluation. Active integration increases the chances that both regional and prospect level data are used and maintained on a continuous basis.