The phi-BVW profiles are in sharp contrast to one another, 7.77 (one of the higher pay calculations). Maps of cumulative oil and gas with large contrast in pay and structurally low wells with high phi-BVW for selected wells.

The phi-BVW profiles from base anhydrite to "x" marker are noticeably higher at higher elevations. While both wells are on opposing ends of the depth cluster, the phi-BVW depth profiles (left) of wells #1228 and adjacent #1207 are on opposing ends of the depth cluster.

Well #1205, near well #1208, is higher due to less deeply but elevation of pay in #1205 has the lowest top of San Andres, but the pay interval is around 35 feet lower. The phi-BVW for Selected Wells shows #1207–High elevation and high sum (phi-BVW).

The phi-BVW is an indication of hydrocarbon pore volume. Displaying a depth profile plot: Observations of the phi-BVW/c105 isosurfaces for Selected Wells indicate reservoir compartmentalization at a single-lineaments that enclose areas with diameters on the order of kilometers. As can be seen by the interleaved most positive volumetric curvature, extracted along a Devonian horizon approximately 0.6 seconds lower, porosity upper reservoir will be cut out, so that the reservoir interval (as was indicated by the center of gravity) appears to correlate with lower cumulative phi-BVW. The most positive volumetric curvature extracted along a Devonian horizon corresponds to tight positive (antiformal) curvature. Most positive volumetric curvature extracted along a Devonian horizon superimposed on the mean impedance map for the base karst to the top of San Andres Formation. Bubbles of Phi-BVW and Bubble maps of BVW at a given elevation (subsea in feet) are superimposed on the top of San Andres subsea depth map. These maps show a range in BVW values that are not closely tied to BVW profiles from base anhydrite to "x" marker.

In the Waddell Field, higher production generally comes from 1) the main structural high, 2) along the northeast flank of the southeast-trending anticline of the karst at the top of the San Andres Formation cuts down into locally thin areas of Waddell Field. Higher production generally comes from 1) the main structural high, 2) along the northeast flank of the southeast-trending anticline of the karst at the top of the San Andres Formation cuts down into locally thin areas of Waddell Field.

A combination of factors appears to be responsible for the pay distribution in the high volume area of Waddell Field. Higher production generally comes from 1) the main structural high, 2) along the northeast flank of the southeast-trending anticline of the karst at the top of the San Andres Formation cuts down into locally thin areas of Waddell Field.