

Production

The Huasna Valley Association has done an analysis of the production of oil and excess produced water from Excelaron's proposed facility using data from the Cannon Facility Engineering Report. We request that the EIR consultant conduct a similar study as part of the EIR.

First slide: This graph from the Cannon report shows the anticipated production of oil and water over the first five years of operation of each well. When the well first produces, oil and water are produced at the same rate. With time oil production falls off and water production rises, but the overall total production of the well remains the same. Notice that the graph only encompasses five years. In order to conduct our analysis we had to make an assumption about how the well produces past year five. We chose to use the average historical water production from the project site and extrapolate this curve to reach a 94% water cut by year seven. The EIR should analyze a range of assumptions and we suggest 83% - 94%.

Second Slide: This spreadsheet shows our analysis of well production, with additional wells being added according to Excelaron's schedule and producing oil and water according to Cannon's graph. We have accounted for annual days of operation and cyclic injection of hot water.

The important thing to notice here is that after year six, even with twelve producing wells, oil production falls off. According to this analysis, Excelaron must continue to add additional wells to maintain production past year six. With directional drilling, this may only require a modification of an existing well, but the EIR must analyze the impacts of those additional drilling operations and the cumulative effects of future drilling beyond the initial twelve wells.

Also notice that in year six the design capacity for daily water production is exceeded and ultimately the wells produce thirteen times more water than oil, which again gives rise to the question of whether or not there will be enough vacancy in the formation to dispose of that much water.