



Buisier Engineering prepares Development Scenarios for optimum utilization of the field.

Field Development Plan

Buisier Engineering prepares development scenarios for optimum utilization of the field. Included in development scenarios are the number of wells to be drilled in order to reach production objectives, recovery techniques to be used when extracting fluids within the reservoir, the type and cost of installations, the separation systems for gas and fluids, as well as the treatment systems needed to preserve the environment including produced water management and disposal systems. The field development plan (FDP) elements are listed below.

- Well locations need to be optimized to ensure that the selected locations take into account the gathering system and plant inlet conditions. Similarly, early discussions between facilities and sub-surface is required to ensure that wellhead flowing conditions are meaningful. It has been found on previous projects that nominal wellhead conditions have been specified resulting in unnecessarily large and operationally unstable gathering facilities. Petrofac works with Gap and Prosper models to give the reservoir engineers a more accurate picture of the interaction between the surface facilities and the well performance.
- Artificial lift strategy is to be developed, as the overall costs of various strategies need to be offset against the recovery achieved. The use of Gap and Prosper modelling can help the design team reach an optimal solution, particularly where gas lift is being used.
- Production profile to specify where breakpoints are for the surface facilities. For example, where a small decrease in throughput will generate significant capital expenses savings by allowing a single train or smaller frame size compressor to be installed. The impact of breaking bottlenecks can then be assessed to identify where the NPV can be maximized.
- During the Contaminants Identification process it's important that contaminants which may affect the surface facilities, such as mercury, are identified during well testing. In addition the potential for sand production needs to be considered and adequately quantified.
- Pressure maintenance, the means of pressure maintenance and the surface treatment and facilities required must be fully understood to be implemented.