The Exploration and Production Process

Safe and responsible energy development is being used to revolutionize U.S. energy supplies, as well as to provide jobs and other economic benefits to local, state and federal governments. We strive to keep community members informed of what’s going on at a well pad. Below are the six key steps to the energy development process:

- **Seismic** – During this step, we conduct studies of the Earth’s subsurface to increase our understanding of the local geology. Geologists, engineers and other experts collaborate to identify a site location that will ensure access to the targeted oil and gas reservoirs.

- **Site preparation** – Sites are selected in consideration of several factors: safety, the surrounding natural environment, near neighbors and property owners, and vehicle and pipeline access. By drilling multiple wells at a single site, Extraction is able to reduce the number of well-pad sites and in turn, reduce impacts to the environment and inconvenience to the community.

- **Drilling the well** – It takes approximately 8 to 10 days to drill a well. During this process, we install multiple layers of protective steel and cement casing to ensure nothing can get into, or out of, the wellbore. The depth of these wells is on average 1.5 miles below the earth’s surface and more than a mile of impenetrable rock separates the oil and gas reservoirs from the water table.
Completing the well — After the rig leaves, completion activities begin as soon as the equipment arrives and may take between three to five days per well. We pressure test each well before beginning completions activities to ensure that the well is structurally ideal. During this process, a mixture of sand, water and a tiny proportion of other ingredients are pumped into the well to release the oil and natural gas. For example, guar is a food ingredient used in completions mixtures to thicken the water. It is also a main ingredient found in Jell-O and in chewing gum. All ingredients used in our hydraulic fracturing mixtures are publicly available on a per-well basis at www.fracfocus.org.

Monitoring the well — Once a well begins production, excess equipment is removed. Only the wellheads and separators remain. Oil and natural gas produced by the well travels via truck or pipeline to market. Any water produced from the well will also be sent or piped offsite for disposal. During this phase, the wells are constantly monitored (24/7) through automated equipment and if any issue is ever detected, wells can be immediately and remotely shut-in. As an extra precaution, the well is checked twice per day by an operator who comes onsite to ensure everything is comprehensively maintained.

Reclaiming the site — At the end of the process, the well site is reduced to a much smaller size and fenced. The surrounding area is “reclaimed” with native vegetation and landscaped to camouflage the well site to blend in with the surrounding area.