



**Crack it:** Drillers bore down to a shale layer that can be 5,000 feet deep or more, then turn and continue horizontally as much as another 5,000 feet. The drill bit is retracted (*bottom diagrams, left*); water, sand and chemicals are pumped down the well to fracture the rock (*center*), releasing gas that flows back up with the fluid (*right*). The tainted wastewater is held in surface ponds or tanks.