SHALE **GAS**

Shale gas accounted for nearly 1% of the U.S. natural gas production in 2000, and in recent years this percentage has risen to well over 20%. The U.S. Energy Information Administration foresees this number growing to 46% by 2035. With the increase of shale gas production in the U.S., natural gas companies are now required to provide evaluation, assessment, and reporting activities for a variety of potential impacts through the course of well development.

KU Resources, located at the heart of one of the largest U.S. shale gas basins, assists many clients with various activities including general site development and construction, addressing permitting requirements for stream encroachments (such as Pennsylvania's Chapter 105 permitting process), and compliance monitoring. We also have the capabilities to address remedial activities for inadvertent material releases that occur at well sites from equipment or extracted product.

SHALE GAS SERVICES

- Subsurface and historical investigation
- Geotechnical support
- Permitting
- Wastewater management compliance audits
- Environmental hazard preparedness planning
- Release (seep/spill) assessment and remediation
- State "closures" at release sites

Within these niches, KU Resources has provided evaluation of site constraints and consideration of environmental concerns affecting targeted areas; addressed Pennsylvania Natural Diversity Inventory (PNDI) reports indicating a potential impact to special concern species; conducted biological evaluations; prepared grading plans, roadway, and pad layouts; determined appropriate erosion and sedimentation controls; prepared permits; and coordinated with jurisdictional agencies and regulators.

In addition, we successfully developed the first National Environmental Policy Act (NEPA) Environmental Assessment in support of a Master Development Plan that required collective approval by the Bureau of Land Management and the United States Department of Agriculture.