

Trusted Technical Expertise.

Comprehensive Analytical and Litigation Support for Shale Oil and Gas Exploration in PA



With the increase in demand for natural gas, hydraulic fracturing or fracking, a method of extracting natural gas from shale oil formations is becoming widely used by gas exploration companies.

The EPA, states and local communities are concerned about potential impacts to groundwater, soil, drinking water and wastewater generated by fracking techniques.

To date the EPA has identified five sources of potential impacts on drinking water resources: water acquisition; chemical mixing; well injection; flowback and produced water; and water treatment and waste disposal.

In addition, there is concern regarding the disposal of drill cuttings, the source of methane detected in drinking water supplies, and fugitive emissions from the fracturing process.

In response to these concerns, Columbia Analytical has assembled a team offering a comprehensive analytical testing program to address fracking water concerns. Our team consists of:

- **Columbia Analytical** – providing analytical program management, routine and specialty testing of high brine matrices for trace metals, anions, project specific fracturing compounds, monitoring of drinking water aquifers for fracking indicator compounds, hazard waste characterization of drilling muds, fugitive gas emissions and pre-drilling baseline studies on water quality within the local area of the drilling operation.
- **Hawk Mountain Laboratories** – providing routine drinking water and wastewater testing of background and treated process waters, private wells and hazardous waste characterization of drilling muds (also offering local courier services to eastern Pennsylvania (PA) clients).
- **ZymaX Laboratories** – methane source determination by isotope ratio mass spectrometry, advanced forensic testing support of hydrocarbon contaminated sites, and expert witness testimony.
- **DPRA** – expert witness testimony/litigation and project management support.



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