



## Industrial Strength Filtration Enables Water Re-Use for Shale Gas Producers



Advancements in drilling technology have made it possible to develop gas reserves that are buried deep in the earth, trapped in layers of shale. The hydraulic fracturing process typically used to access these reserves depends on water to displace and transport natural gas to the surface. Often, gas producers must compete with neighboring industries and municipalities for the available water supply. To get the maximum benefit from the water on hand, reuse of “flowback” water is standard practice. But re-using unfiltered water may reduce a well’s productive life and lower its yield. This presents developers with a problem, as filtering flowback water is a task beyond the abilities of conventional filtration systems.

For several gas producers in Northern Pennsylvania, the solution is an innovative filtration system from Layne’s Water Technologies Group. Layne’s industrial-strength INTEGRA Mobile Filtration System is capable of filtering where conventional systems fail, removing solids down to 5-microns, even in the mineral-laden frac flowback water produced by shale-gas development.

Layne recently deployed INTEGRA to provide for the re-use of frac flowback water in the Marcellus Shale. The automated filter is an important part of Layne’s water management services and to support its total water management services in the oil and gas markets the company has established new offices in both Austin, Texas and in the Pittsburgh Metro area.

The team is using the INTEGRA to manage receiving waste streams through filtration and distribution of frac water for re-use and disposal. The systems currently in place are successfully monitoring and filtering suspended solids and returning significant volumes of water to producers for re-use. Layne’s water management services are helping operators manage, transfer and recycle frac flowback water in a cost-effective and environmentally responsible manner. For those waters that cannot be effectively treated and re-used, Layne offers zero-liquid discharge through the EVRAS evaporative crystallization system.

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