

Solve Gas Well Fracture Water Supply and Disposal Problems by Treatment and Recycle

MB1208

Opportunity: The huge Marcellus black shale deposit which underlies most of northern Appalachia is estimated to contain 168+ trillion cubic feet of natural gas. Due to the depth and compact nature of this formation, horizontal drilling with follow-up fracture of the formation with a mixture of high pressure water and sand (or ceramic) is required to obtain economic gas production.

Problem: From 2 to 10 million gallons of “frac” water, mixed with additives, is required to completion fracture each horizontal deep well. Once used, this now contaminated water must be removed from the well and is commonly referred to as “flowback” water. Obtaining the needed water to makeup frac water, and subsequent disposal of the flowback water, present significant problems for well drillers.

Solution: The solution to this water and wastewater problem is to simply treat and recycle the flowback water, over and over again. Treatment of the flowback water to remove suspended solids and scale forming impurities renders it suitable for recycle.

How: ProChemTech has designed and built many wastewater recycle systems in the past twenty + years in a number of different industries utilizing our proprietary water treatment chemistries and unique inclined plate clarifiers. This well developed, patent pending technology permits economical treatment of gas well flowback water for recycle. Units can be manufactured trailer mounted or for stationary placement in flow ratings from 10 to 1000 gpm.

**ProChemTech International,
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**“The Water Management
Company”**

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Shown is a 2005 vintage 250 gpm inclined plate clarifier used to treat acid mine drainage to supply all the water for a facility raising trout in Brandy Camp, PA.