

## Lake Country FracWater Specialists, LLC

### *The Green Alternative*

Lake Country FracWater Specialists, LLC has developed a cost-effective, patent pending process to remove barium and strontium and other metals from the flowback of hydrofracturing fluids so that the water can be recycled and reused. Lake Country can remove any concentration of barium and strontium - discouraging reservoir crystallization and the need for further expensive treatments - to attain whatever the customer desires.

Lake Country has designed its environmentally-friendly “green” system, maximizing recycling and reuse of water and minimizing environmental impacts:

- Lake Country chemically precipitates the hydrofracing fluid with mild, non-hazardous, environmentally-friendly chemicals.
- The treated effluent from our system is salt water - ready and suitable for recycling and reuse in the next stage of the frac job.
- The entire system is fully portable and modular – all of our equipment (with the exception of the DryBox) fits into one trailer truck that can be moved from well location to well location. The savings from portability is substantial making our system very cost effective.
- One Lake Country unit has the capacity to treat up to 125,000 gallons per day.
- The non-hazardous, precipitated solids (barium sulfate, strontium sulfate) are captured in a patented, fully-automated, separation/filtration roll-off container called a “DryBox.” No solids touch the ground.
- The dewatered solids are managed as solid residual or non-hazardous solid waste. The DryBox is easily handled with a conventional roll-off truck for transport. Higher purity management of the solids may allow for beneficial use in the future – an exciting possibility.
- Additional equipment can be utilized to increase capacity, if desired. And while our system is portable and modular, it can be designed to be semi-permanent or even permanent.

Lake Country has optimized its process to readily modify and control removal of barium and strontium contamination based on site-specific conditions such as levels of barium and strontium contamination, percentage of processed waste frac water desired for recycling and reuse, and other variables. Our portable process control laboratory ensures that the desired parameters for each site's condition are achieved and maintained even as metal concentrations may change.

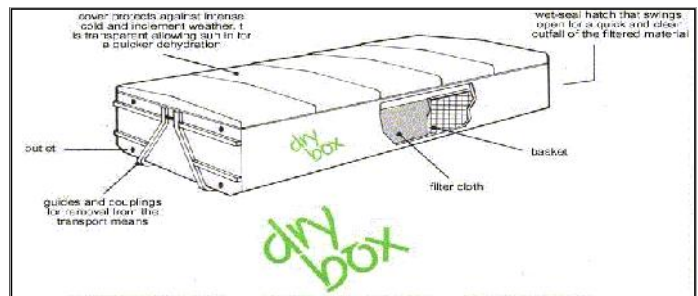


During the conception of our process, we have studied the sources of interference and inhibition on the removal of the barium and strontium from the frac fluids. This unique research of interfering ions and of trace residual hydrofracing chemicals in the waste frac fluid has led to an optimized chemical formulation that furthers our cost-effectiveness. In instances where additional control of these chemical interferences is required, Lake Country has aligned with Allegheny Ozone of Somerset, Pennsylvania – the only company in the Marcellus with a license to the technology to ozonate frac water. Allegheny Ozone provides its service in a fully-portable platform that complements the Lake Country system.

Implementation of the Lake Country processes has many exclusive environmental and financial benefits. We believe that our system is superior to any system on the market today. Progressive companies will recognize the environmental benefits.

### Benefits of the Lake Country System - *The Green Alternative:*

- Lake Country's mobile process of removing barium and strontium is highly cost-effective and mitigates the need for expensive and time-consuming reservoir treatments in the future.
- Processed frac water will be recycled and reused onsite, eliminating the trucking of wastewater to a treatment plant or disposal site and the purchase and trucking of additional make-up water back to the site.
- No hazardous chemicals or hazardous wastes are involved. Lake Country uses only mild, non toxic and environmentally-friendly chemicals.
- Solids are dewatered and sequestered in the DryBox. Even though the solids are inert, they never touch the ground and are transported in the DryBox for disposal at a solid waste facility, not a hazardous waste landfill.
- Solids may be beneficially used in the future.
- Removing high concentrations of barium, strontium and other metals from the frac fluids means that these metals will not find their way into the streams and rivers of our environment.
- Recycling and reuse of water will be a major selling point to the communities, environmental groups, and the state as the environmentally "green" alternative.
- Implementation of the Lake Country system on all wells throughout Pennsylvania would save an estimated 200,000 truck trips per year – mitigating a nuisance for the public, and local and county governments and saving on road maintenance, rehabilitation, and reconstruction!



Let us work with you to meet your needs – and minimize environmental impacts!

For further information, visit our website at [www.fracwaterrecyclers.com](http://www.fracwaterrecyclers.com) or call us at the number below!

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