Baseline Water Quality Testing With Respect to Gas Wells

The Community Science Institute (CSI) recommends that landowners in the vicinity of horizontal, hydraulically fractured shale gas wells hire a certified laboratory to test water on their property before the gas well is drilled and at regular intervals during its production phase and after it is abandoned and plugged. CSI’s certified lab offers a set of tests with a high probability of providing a broad “chemical signature” of contamination by gas well wastes. Obtaining a water quality baseline before the gas well is drilled and hydraulically fractured is essential if a landowner wants to make a case to their county health department, the New York State Department of Environmental Conservation, or in court that the gas well is the cause of contamination. The tests must be performed by a certified lab to have regulatory and legal standing, and the samples must be collected by an unbiased third party. Often the certified lab collects the samples.

Baseline testing is not a guarantee that a landowner will prevail with state agencies or in court if she suspects a gas well may have contaminated her drinking water. That said, baseline testing gives a landowner a chance to determine whether contamination has occurred and, if it has, to receive compensation as well as assistance with additional testing and dealing with the consequences of contamination. New York State has not yet issued final recommendations for baseline testing of private drinking water wells.

### Tests Performed in CSI Lab

<table>
<thead>
<tr>
<th>Test</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>$12</td>
</tr>
<tr>
<td>Alkalinity</td>
<td>$18</td>
</tr>
<tr>
<td>Acidity</td>
<td>$18</td>
</tr>
<tr>
<td>Chloride</td>
<td>$20</td>
</tr>
<tr>
<td>Total Dissolved Solids</td>
<td>$18</td>
</tr>
<tr>
<td>Total Suspended Solids</td>
<td>$18</td>
</tr>
<tr>
<td>Turbidity</td>
<td>$12</td>
</tr>
<tr>
<td>Calcium Hardness</td>
<td>$18</td>
</tr>
<tr>
<td>Total Hardness</td>
<td>$18</td>
</tr>
<tr>
<td>MBAS (detergents)</td>
<td>$45</td>
</tr>
<tr>
<td>Conductivity</td>
<td>$12</td>
</tr>
<tr>
<td>Chemical Oxygen Demand</td>
<td>$20</td>
</tr>
</tbody>
</table>

### Tests subcontracted to other certified labs

<table>
<thead>
<tr>
<th>Test</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metals (barium, iron, manganese, arsenic, strontium)</td>
<td>$90</td>
</tr>
<tr>
<td>Bromide</td>
<td>$25</td>
</tr>
<tr>
<td>Methane, ethane, propane, butane</td>
<td>$110</td>
</tr>
<tr>
<td>Volatile Organic Compounds (VOCs)</td>
<td>$125</td>
</tr>
<tr>
<td>Gross alpha &amp; beta radioactivity</td>
<td>$65</td>
</tr>
</tbody>
</table>

### Total Testing Fees

$644

### Other Fees

<table>
<thead>
<tr>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>$35</td>
</tr>
<tr>
<td>$45</td>
</tr>
<tr>
<td>Varies, charged at $35/hour &amp; $0.55/mile</td>
</tr>
</tbody>
</table>

**Total Fees:** $724 plus travel