

**Quantitative Water and Community Risk Management Reporting for
Hydraulic Fracturing Operations
Chevron 2016**

Whereas,

Extracting oil and gas from shale formations, using horizontal drilling and hydraulic fracturing technology, is a controversial public issue. Leaks, spills, explosions and community impacts have led to bans and moratoria in the US and around the globe, putting the industry's social license to operate at risk.

The 2011 report, "Extracting the Facts: An Investor Guide to Disclosing Risks from Hydraulic Fracturing Operations," articulates investor expectations for best management practices and key performance in these areas. It has been publicly supported by investors on three continents representing \$1.3 trillion in assets under management and by various companies.

In 2014 and through the first ten months of 2015, Chevron reported on fracfocus.org fracturing approximately 434 horizontal and vertical wells in the Permian Basin of Texas and New Mexico, a region experiencing extremely high water stress.¹ Yet the absence of systematic reporting on Permian operations using quantifiable metrics for water availability, recycling, and substitution of nonpotable water for potable makes it difficult for investors to evaluate company risk management practices and identify performance trends. In contrast, other companies operating in the Permian Basin, including Apache,² BHP-Billiton,³ Occidental Petroleum⁴ and Anadarko Petroleum,⁵ have publicly disclosed such quantitative information.

In its less-intensely drilled Marcellus Shale play, where Chevron completed 129 wells in 2014 and the first ten months of 2015, Chevron's risk management and disclosure practices make many issues transparent, and have been certified by the independent Center for Sustainable Shale Development. But by not reporting to the same extent elsewhere, Chevron leaves investors in the dark about environmental, reputational, legal, and other risks lurking in other plays.

Therefore be it resolved, that: Shareholders request the Board of Directors to report to shareholders via quantitative indicators on all shale plays where it is operating, by September 30, 2016, and annually thereafter, the results of company policies and practices, above and beyond regulatory requirements, to minimize the adverse water resource and community impacts from the company's hydraulic fracturing operations associated with shale formations. Such reports should be prepared at reasonable cost, omitting confidential information.

Supporting Statement

¹ Ceres, "Hydraulic Fracturing by the Numbers: Water Demand by the Numbers" (Boston, MA, 2014), pp. 55-58, <http://www.ceres.org/resources/reports/hydraulic-fracturing-water-stress-water-demand-by-the-numbers>

² http://www.apachecorp.com/Sustainability/Environment/Water/Apache_global_water_usage/index.aspx

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http://www.bhpbilliton.com/~media/bhp/documents/society/reports/2015/150922_society_environment_responsiblymanaginghydraulicfracturing.pdf?la=en

⁴ <http://www.oxy.com/SocialResponsibility/Environmental-Stewardship/WaterPerformanceMetrics/Pages/default.aspx>

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http://www.anadarko.com/content/documents/apc/Responsibility/CDP_Water_Archive/CDP_Water_2015_Response_Anadarko.pdf, Responses to Questions W5.1-W5.3 (Delaware sub-basin of the Permian basin)

Proponents suggest the reports include a breakdown by geographic region, such as each shale play in which the company engages in substantial extraction operations, addressing, at a minimum:

- Quantity of fresh water used for shale operations, including source;
- Percentage of recycled water used;
- Systematic post-drilling groundwater quality assessments;
- Percentage of drilling residuals managed in closed-loop systems;
- Goals to eliminate the use of open pits for storage of drilling fluid and flowback water, with updates on progress; and
- A systematic approach to assessing and managing community and human rights impacts, including quantifying numbers and categories of community complaints of alleged impacts, and portion resolved.