Reports & Studies - Oil & Natural Gas Development

The production of oil and natural gas from deep shale formations and other “tight” reservoirs, as well as the use of hydraulic fracturing, have been closely regulated and extensively studied for many years by the federal government, state governments and academia. The ongoing effort to closely monitor these activities has yielded many studies and reports, ranging from economic impact to water quality. Below is a collection of studies on oil & natural gas development.

GENERAL

Short–Term Energy Outlook: Natural Gas
EIA (September 2017)

U.S. Energy Security Risk Index
Institute for 21st Century Energy (January, 2016)

A Geologic Play Book for Utica Shale Appalachian Basin Exploration
West Virginia University (July 2015)

Step on the Gas! How to Extend America’s Energy Advantage
Manhattan Institute (July 2015)

U.S. Crude Oil and Natural Gas Proved Reserves
EIA (December 2014)

Framework for U.S. Natural Gas Production
Morningstar (March 2014)

The Future of Natural Gas
Massachusetts Institute of Technology Energy Initiative (June 2011)

Shale Gas Production Subcommittee Second Ninety Day Report
U.S. Secretary of Energy Advisory Board (November 2011)

A Comparative Study of the Mississippian Barnett Shale, Fort Worth Basin, and Devonian Marcellus Shale, Appalachian Basin
U.S. National Energy Technology Laboratory (April 2011)

Realizing the Potential of U.S. Unconventional Natural Gas
Center for Strategic and International Studies (February 2013)

Natural Gas Liquids
Brookings Institution (March 2013)

Energy Rush: Shale Production and U.S. National Security
Center for a New American Security (February 2014)

Fueling the Future with Natural Gas: Bringing It Home
IHS (January 2014)

Realizing the Potential of North America’s Abundant Natural Gas and Oil Resources
National Petroleum Council (February 2012)

States’ experience with hydraulic fracturing
Interstate Oil and Gas Commission (July 2002)
PUBLIC HEALTH/ENVIRONMENT

Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States
M.J. Bradley & Associates (June 2017)

CO2 emissions flat for third straight year even as global economy grew in 2016
IEA (March 2017)

Assessment of Potential Public Health Effects from Oil and Gas Operations in Colorado
Colorado Department of Public Health & Environment (February 2017)

Fort Cherry Hydraulic Fracturing Air Monitoring
Cardno ChemRisk (June 2016)

Can Natural Gas Save Lives? Evidence from the Deployment of a Fuel Delivery System in a Developing Country
National Bureau of Economic Research (August 2016)

U.S. energy-related carbon dioxide emissions in 2015 are 12% below their 2005 levels
EIA (May 2016)

Data Indicate that Massive Improvements in Air Quality, Health a Direct Function of Shale
Energy In Depth (September 2015)

Atmospheric Emission Characterization of Marcellus Shale Natural Gas Development Sites
Drexel University (May 2015)

Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013
U.S. Environmental Protection Agency (April 2015)

2013 air emissions inventory for the natural gas drilling industry
PA DEP (April 2015)

Life cycle greenhouse gas emissions from U.S. liquefied natural gas exports: implications for end uses.
Carnegie Mellon University (March 2015)

Detailed Human Health Risk Assessment of Oil and Gas Activities in Northeastern British Columbia
Ministry of Health in British Columbia (April 2015)

Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM) Study Report
Pennsylvania Department of Environmental Protection (January 2015)

The Impact of Marcellus Shale Development on Health and Health Care
The Center for Rural Pennsylvania (January 2015)

Methane Emissions Decline in Top Oil and Gas Basins
Energy In Depth (December 2014)

Air Monitoring Results for the Fracking and Flaring Phases of Gas Extraction Operations at the Chiarelli Well Pad
ChemRisk (February 2012)

Methane Emissions from Process Equipment at Natural Gas Production Sites in the United States,
University of Texas at Austin (December 2014)

Shale Gas Monitoring Report
Department of Conservation and Natural Resources (April 2014)
Measurements of methane emissions at natural gas production sites in the United States
*University of Texas and the Environmental Defense Fund* (September 2013)

Assessing the greenhouse impact of natural gas
*Geochemistry, Geophysics, Geosystems (G3)* (June 2012)

Supplemental Generic Environmental Impact Statement On The Oil, Gas and Solution Mining Regulatory Program
*New York State Department of Environmental Conservation* (September 2009)

Fact-Based Regulation for Environmental Protection in Shale Gas Development
*Energy Institute, Univ. of Texas at Austin* (February 2012)

Hydraulic Fracturing Operations—Well Construction and Integrity Guidelines
*American Petroleum Institute* (October 2009)

Cornell professor finds Howarth GHG study critically flawed
*Climate Change Journal* (July 2012)

Leveraging Natural Gas to Reduce Greenhouse Gas Emissions
*Center for Climate and Energy Solutions* (June 2013)

Pennsylvania Follow-up State Review
*STRONGER* (September 2013)

Benefits of Hydraulic Fracturing
*American Enterprise Institute* (April 2013)

Measurements of Methane Emissions at Natural Gas Production Sites in the U.S.
*Environmental Defense Fund, UT-Austin* (October 2013)

Changing the Game? Emissions and Market Implications of New Natural Gas Supplies
*Stanford University* (September 2013)

Life Cycle Greenhouse Gas Emissions and Freshwater Consumption of Marcellus Shale Gas
*ExxonMobil Research and Engineering Co.* (April 2013)

Shale Gas Production: Potential Versus Actual Greenhouse Gas Emissions
*MIT* (November 2012)

Why Every Serious Environmentalist Should Favor Fracking
*Centre for Policy Studies* (December 2013)

Reduced Emissions from U.S. Power Plants Due to the Switch to Natural Gas
*NOAA* (January 2014)

Environmental Impacts During Shale Gas Drilling: Causes, Impacts and Remedies
*University at Buffalo* (May 2012)

Review of the Potential Public Health Impacts of Exposures to Chemical and Radioactive Pollutants as a Result of Shale Gas Extraction
*Public Health England* (October 2013)

The Next Frontier in United States Unconventional Shale Gas and Tight Oil Extraction: Strategic Reduction of Environmental Impact
*Befer Center* (March 2013)

Evaluating the Environmental Implications of Hydraulic Fracturing in Shale Gas Reservoirs
*ALL Consulting* (2008)
Evaluation of impact of shale gas operations in the Barnett Shale region on volatile organic compounds in air and potential human health risks
ToxStrategies, Austin (September 2013)

Characterizing Pivotal Sources of Methane Emissions from Unconventional Natural Gas Production
API, ANGA (June 2012)

The Economic Impacts of the Marcellus Shale: Implications for NY, PA, and WV
API (July 2010)

Measurements of methane emissions at natural gas production sites in the United States
David T. Allen, Center for Energy and Environmental Resources, University of Texas, Austin, Vincent M. Torresa URS Corporation, et al. (September 2013)

A Commitment to Air Quality in the Barnett Shale
Texas Commission on Environmental Quality

Air Quality Impacts from Horizontal Well Drilling and Related Activates
West Virginia Department of Environmental Protection (June 2013)

Northeastern Pennsylvania Marcellus Shale Short-Term Ambient Air Sampling Report
Pennsylvania Department of Environmental Protection (January 2011)

Southwestern Pennsylvania Marcellus Shale Short-Term Ambient Air Sampling Report
Pennsylvania Department of Environmental Protection (November 2010)

Data Show Public Health Impacts from Natural Gas Production Overstated
Sue Mickley, M.P.H., and Uni Blake, M.S., Toxicology (October 2011)

Shale Gas Production: Potential Versus Actual Greenhouse Gas Emissions
Massachusetts Institute of Technology (November 2012)

Life Cycle Greenhouse Gas Emissions of Marcellus Shale Gas
Carnegie Mellon University (August 2011)

Characterizing Pivotal Sources of Methane Emissions from Natural Gas Production
URS Corp., LEVON Group, American Petroleum Institute, America's Natural Gas Alliance (September 2012)

Comment on “Hydrocarbon Emissions Characterization in the Colorado Front Range – A Pilot Study”
Council on Foreign Relations (October 2012)

Life Cycle Greenhouse Gas Inventory of Natural Gas Extraction, Delivery and Electricity Production
U.S. National Energy Technology Laboratory (October 2011)

The Greenhouse Impact of Unconventional Gas for Electricity Generation
University of Maryland (October 2011)

Assessing the Greenhouse Impact of Natural Gas
Cornell University (June 2012)

Mismeasuring Methane: Estimating Greenhouse Gas Emissions from Upstream Natural Gas Development
IHS CERA (August 2011)

City of Fort Worth Natural Gas Air Quality Study
Eastern Research Group, Sage Environmental Consulting

DISH, Texas Exposure Investigation
Texas Dept. of State Health Services (May 2010)
MANUFACTURING/ECONOMY

Economic Impacts of the Natural Gas and Oil Industry
API (August 2017)

Prospects to Enhance Pennsylvania’s Opportunities in Petrochemical Manufacturing
IHS Markit (March 2017)

Most local government budgets gain from oil, gas development
Duke University Energy Initiative (May 2016)

Energizing Manufacturing: Natural Gas and Economic Growth
National Association of Manufacturers (May 2016)

U.S. Chemical Industry Investment Linked to Shale Gas Tops $164 Billion
American Chemistry Council (April 2016)

A Pipeline for Growth: Fueling Economic Revitalization with Marcellus and Utica Shale Gas
Greater Philadelphia Energy Action Team (March 2016)

Fossil Fuel Energy and Economic Wellbeing
George C. Marshall Institute (August 2015)

America’s Unconventional Energy Opportunity
Harvard Business School (June 2015)
The Rising Competitive Advantage of U.S. Plastics
American Chemistry Council (May 2015)

Welfare and Distributional Implications of Shale Gas
National Bureau of Economic Research (April 2015)

An analysis of the economic impact of unconventional shale development in Washington County, PA.
Washington & Jefferson College’s Center for Energy Policy and Management (March 2015)

Shale Gas: Still a boon to US manufacturing?
PriceWaterhouseCoopers (December 2014)

The Economic and Budgetary Effects of Producing Oil and Natural Gas From Shale
Congressional Budget Office (December 2014)

Small Business Growth from Natural Gas Production and Exports
SBE Council (November 2014)

The Effect of Shale Based Feedstocks on the Global Petrochemical Industry
IHS (November 2014)

Oil and gas revenue allocation to local governments in eight states
Duke University Energy Institute (October 2014)

US Shale: A game of choices
Deloitte (September 2014)

Supplying the Unconventional Revolution: Sizing the Unconventional Oil and Gas Supply Chain
IHS (September 2014)

Study of Construction Employment in Marcellus Shale Related Oil and Gas Industry
University of Illinois (August 2014)
The Unconventional Energy Revolution: Estimated Energy Savings for Public School Districts and State and Local Governments
IHS (June 2014)

Impact of the Manufacturing Renaissance from Energy Intensive Sectors
IHS (March 2014)

The Marcellus Shale gas boom in Pennsylvania: employment and wage trends
United States Department of Labor (February 2014)

Nearly Every Manufacturer in the U.S. Will Benefit from Low-Cost Natural Gas
Boston Consulting Group (February 2014)

The Pennsylvania Marcellus Natural Gas Industry: Status, Economic Impacts and Future Potential
Penn State (July 2011)

The Economic Impacts of the Pennsylvania Marcellus Shale Natural Gas Play: An Update
Penn State (May 2010)

An Emerging Giant: Prospects and Economic Impacts of Developing the Marcellus Shale Natural Gas Play
Penn State (July 2009)

U.S. Supply Forecast and Potential Jobs and Economic Impacts (2012-2030)
Wood Mackenzie (September 2011)

Shale Gas: A Game Changer for U.S. and Global Gas Markets
U.S. EIA (March 2010)

The Natural Gas Subcommittee Report on Energy and Job Creation
Michigan House of Representatives (March 2011)

Potential Economic and Fiscal Impacts from Natural Gas Production in Broome County, New York
Bernard L. Weinstein, Ph.D. and Terry L. Clower, Ph.D. (September 2009)

Economic Considerations Associated with Regulating the American Oil and Natural Gas Industry
Advanced Resources International, Inc. (April 2009)

Environmental and Regulatory Considerations Associated with the American Oil and Natural Gas Industry
Advanced Resources International, Inc. (April 2009)

The Economic Impact of the Haynesville Shale on the Louisiana Economy
Louisiana DNR (April 2009)

Strengthening Our Economy: The Untapped U.S. Oil and Gas Resources
ICF International (December 2008)

The Local Impact of Oil and Gas Production and Drilling in Oklahoma
Oklahoma State University (October 2008)

The Economic Impact of the Natural Gas Industry in West Virginia
Marshall University (August 2008)

Barnett Shale supports over 83,000 jobs per year
The Perryman Group (August 2011)

The technology behind natural gas supplies
American Exploration and Production Council (February 2010)

Economic Impact of the Eagle Ford Shale
Center for Community and Business Research (May 2012)
Identifying Key Economic Impacts of Recent Increases in U.S. Natural Gas Production
American Gas Association (May 2012)

Energy for Economic Growth
World Economic Forum (May 2012)

Marcellus Royalty Payments Rising Rapidly
Allegheny Institute for Public Policy (May 2013)

The Economic and Employment Contributions of Unconventional Gas Development in State Economies
IHS (June 2012)

New Dynamics of the U.S. Natural Gas Market
Bipartisan Policy Center (May 2013)

Shale Gas, Competitiveness, and New US Chemical Industry Investment
American Chemistry Council (May 2013)

Understanding the Marcellus Supply Chain
University of Pittsburgh (June 2012)

The Benefits of Natural Gas Production and Exports for Pa. Small Businesses
Small Business & Entrepreneurship Council (May 2013)

Benefits of Hydraulic Fracturing
American Enterprise Institute (April 2013)

The Financial Returns from Oil and Natural Gas Company Stocks Held by American College and University Endowments
Sonecon (January 2013)

Low-Cost Shale Gas Gives North American Petrochemical Producers Advantages Over Europe
Standard & Poor’s (April 2013)

The Role of Oil and Gas and Amenities in County Economic Development
Liberty Source (August 2013)

Economic Impacts of the Oil and Natural Gas Industry on the U.S. Economy in 2011
PricewaterhouseCoopers (July 2013)

Shale Energy: A Potential Game-Changer | Implications for the U.S. Transportation & Logistics Industry
PricewaterhouseCoopers (November 2013)

Shale Gas: Reshaping the US Chemicals Industry
PricewaterhouseCoopers (October 2012)

Shale Gas: A Renaissance in US Manufacturing?
PricewaterhouseCoopers (December 2011)

Local Collection of State Taxes Rises in Marcellus Shale Counties
Penn State (May 2012)

Goldman Sachs (September 2012)

Age of Gas
General Electric Company (October 2013)
The Arithmetic of Shale Gas
Yale University (June 2012)

Energy in Pennsylvania: Past, Present, and Future
Commonwealth Economics, LLC (October 2013)

Impact of the Manufacturing Renaissance from Energy Intensive Sectors
The United States Conference of Mayors (March 2014)

Identifying Key Economic Impacts of Recent Increases in U.S. Natural Gas Production
AGA (May 2012)

North America Midstream Infrastructure through 2035: Capitalizing on Our Energy Abundance
ICF International (March 2014)

How the Marcellus Shale Transformed the Domestic Natural Gas Landscape
Morningstar, Inc. (February 2014)

The Shale Shift: Exploring the impact of shale gas on the U.S. economy
TD Economics (November 2012)

The Petroleum Industry and the Monterey Shale: Current Economic Impact and the Economic Future of the San Joaquin Valley
Craig School of Business, California State University, Fresno (August 2013)

Small Businesses Unleash America’s Energy Employment Boom
Manhattan Institute (February 2014)

The Economic Effects of Hydrofracturing on Local Economies: A Comparison of NY and PA
Manhattan Institute (May 2013)

Shale Gas and New Petrochemicals Investment: Benefits for the Economy, Jobs, and US Manufacturing
American Chemistry Council (March 2011)

Potential Economic & Fiscal Impacts of Natural Gas Production in Western Maryland
MD Petroleum Council (March 2012)

Game changers: Five opportunities for US growth and renewal
McKinsey & Company (July 2013)

Drilling for Jobs – What the Marcellus Shale could mean for New York
Public Policy Institute of New York State (July 2011)

WATER QUALITY & USE

Elevated levels of diesel range organic compounds in groundwater near Marcellus gas operations are derived from surface activities
Yale University (October 2015)

Water Footprint of Hydraulic Fracturing
Duke University (September 2015)

The Depths of Hydraulic Fracturing and Accompanying Water Use Across the United States
Stanford University (July 2015)

Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources
EPA (June 2015)

Data Report of Baseline Conditions for 2010 - 2013
Susquehanna River Basin Commission (June 2015)
Water Quality of Groundwater & Stream Base Flow in the Marcellus Shale Gas Field of the Monongahela River Basin, West Virginia
USGS (May 2015)

2014 Pennsylvania Integrated Water Quality Monitoring and Assessment Report
PA DEP (December 2014)

Baseline Groundwater Quality Studies Find Naturally Occurring Methane in Northeastern Pennsylvania
USGS (November 2014)

State Oil & Gas Regulations Designed to Protect Water Resources: 2014 Edition
Ground Water Protection Council (October 2014)

An Evaluation of Fracture Growth and Gas/Fluid Migration as Horizontal Marcellus Shale Gas Wells are Hydraulically Fractured in Greene County, Pennsylvania
Department of Energy, NETL (September 2014)

A geochemical context for stray gas investigations in the northern Appalachian Basin: Implications of analyses of natural gases from Neogene-through Devonian-age strata
Fred J. Baldassare, Mark A. McCaffrey, John A. Harper (March 2014)

Water-Quality Characteristics and Trend Analyses for the Tongue, Powder, Cheyenne, and Belle Fourche River Drainage Basins, Wyoming and Montana, for Selected Periods, Water Years 1991 through 2010
U.S. Geological Survey (April 2012)

Prudent and Sustainable Water Management and Disposal Alternatives Applicable to Shale Gas Development
ALL Consulting (January 2009)

Inventory and Extent Of Hydraulic Fracturing In Coalbed Methane Wells In The Producing States
Ground Water Protection Council (December 1998)

Potential Impacts of Hydraulic Fracturing of Coalbed Methane Wells on Underground Sources of Drinking Water
U.S. Environmental Protection Agency (June 2004, accessed December 2006)

Evaluation of Methane Sources in Groundwater in Northeastern Pa.
NGWA's Groundwater (June 2013)

Modern Shale Gas Development in the United States: A Primer
U.S. Department of Energy and Ground Water Protection Council (April 2009)

Section 999 Report to Congress
U.S. Department of Energy (April 2012)

Modern Shale Gas Development in the United States: An Update
NETL (September 2013)

Impact of Shale Gas Development on Regional Water Quality
University of Pittsburgh & Pennsylvania State University (May 2013)

U-M technical reports examine hydraulic fracturing in Michigan
University of Michigan (September 2013)

America’s New Energy Future: The Unconventional Oil & Gas Revolution and the US Economy
IHS CERA (September 2013)

Constraints on Upward Migration of Hydraulic Fracturing Fluid and Brine Gradient (July 2013)
Baseline Groundwater Quality from 20 Domestic Wells in Sullivan County, Pennsylvania, 2012
U.S. Geological Survey (June 2013)

National Human Health Risk Evaluation for Hydraulic Fracturing Fluid Additives
Gradient (May 2013)

Trace Elements and Radon in Groundwater Across the United States, 1992-2003
U.S. Geological Survey (August, 2011)

Shallow Groundwater Quality and Geochemistry in the Fayetteville Shale Gas-Production Area, North-Central Arkansas, 2011
U.S. Geological Survey (January 2013)

State Oil and Gas Agency Groundwater Investigations
Ground Water Protection Council (August, 2011)

Estimated Use of Water in the United States in 2005
U.S. Geological Survey (October 2009)

Water Sources & Demand for the Hydraulic Fracturing of Oil & Gas Wells in Colorado from 2010 - 2015
Colorado Division of Water Resources, the Colorado Water Conservation Board, Colorado Oil and Gas Conservation Commission (January 2012)

Life Cycle Analysis of Water Use and Intensity of Oil and Gas Recovery In Wattenberg Field, Colo.
Colorado State University, Noble Energy Inc. (May 2012)

State Oil and Natural Gas Regulations Designed to Protect Water Resources
U.S. Department of Energy and Ground Water Protection Council (May 2009)

Response of the U.S. Environmental Protection Agency to Petition for Promulgation of Rule Withdrawing Approval of Alabama’s Underground Injection Control Program
U.S. Environmental Protection Agency (May 1995)

Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs Study
U.S. Environmental Protection Agency (June 2004)

Study of the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources: Progress Report
U.S. Environmental Protection Agency (December 2012)

Water Consumption of Energy Resource Extraction, Processing, and Conversion
Belfer Center for Science and International Affairs, Harvard University (October 2010)

The Impact of Marcellus Gas Drilling on Rural Drinking Water Supplies
Center for Rural Pennsylvania (November 2011)

SEISMICITY

Myths and Facts on Wastewater Injection, Hydraulic Fracturing, Enhanced Oil Recovery, and Induced Seismicity
Seismological Society of America (2015)

Induced Seismicity and Hydraulic Fracturing for the Recovery of Hydrocarbons
Durham Energy Institute, Department of Earth Sciences, Durham University (April 2013)

Induced Seismicity Potential in Energy Technologies
National Research Council (June 2012)
Revised Draft Supplemental Generic Environmental Impact Statement: Well Permit Issuance for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs
New York Department of Environmental Conservation (September 2011)

OTHER TOPICS

LNG Opportunities for Marine and Rail
ANGA (October 2014)

Setting the Record Straight on LNG Exports
American Council for Capital Information (October 2014)

Drilling Productivity Report
U.S. EIA (April 2014)

Marcellus Shale Drilling Productivity Report
U.S. EIA (April 2014)

ICF (November 2013)

The Geopolitics of Natural Gas
Harvard & Rice University Experts (July 2012)

Assessment of New York City Natural Gas Market Fundamentals and Life Cycle Fuel Emissions
ICF International (August 2012)

Shale & Renewables: A Symbiotic Relationship
Citigroup (September 2012)

Why Rapid Approval of LNG Applications is Important for U.S. Prosperity
American Council for Capital Formation (July 2013)

Exporting the American Renaissance: Global Impacts of LNG Exports from the United States
Deloitte (June 2013)

Driving on Natural Gas: Fuel Price and Demand Scenarios for Natural Gas Vehicles to 2025 American Clean Skies Foundation (April 2013)

Natural Gas Vehicles: Driving America to a More Prosperous, Secure, and Sustainable Future
Progressive Policy Institute (April 2013)

Innovation in Oil and Natural Gas Production Assures Future Supplies
Manhattan Institute (April 2013)

2014 Sustainable Energy in America Factbook
The Business Council for Sustainable Energy (February 2014)

Oil & Natural Gas Transportation & Storage Infrastructure: Status, Trends, & Economic Benefits
IHS (December 2013)

NGV Road Map For Pennsylvania Jobs, Energy Security and Clean Air
MSC (April 2011)

Natural Gas and the Transformation of the U.S. Energy Sector: Electricity
U.S. National Renewable Energy Laboratory (November, 2012)

Shale Gas
U.K. House of Commons, Energy and Climate Change Committee (May, 2011)
STUDIES – Debunked

**Association Between Unconventional Natural Gas Development in the Marcellus Shale and Asthma Exacerbations**, Johns Hopkins University (July 2016)
- Energy In Depth debunk: [Despite Provocative Headlines, New Pa. Study Fails to Link Fracking to Asthma](#)

**Endocrine-Disrupting Activity of Hydraulic Fracturing Chemicals and Adverse Health Outcomes After Prenatal Exposure in Male Mice**, University of Missouri (October 2015)
- Energy In Depth debunk: [Four Reasons – Beyond the Obvious One – Why a New Report on Fracking and Sperm Counts in Mice is Very Silly](#)

**Fracking Industry Wells Associated With Premature Birth**, Johns Hopkins University (October 2015)
- Energy In Depth debunk: [Researchers’ Own Data Contradict Conclusion Linking HF to Premature Births](#)

**Endocrine-Disrupting Chemicals and Oil and Natural Gas Operations: Potential Environmental Contamination and Recommendations to Assess Complex Environmental Mixtures**, University of Missouri (October 2015)
- Energy In Depth debunk: [New Endocrine Disruption Study a Compilation of Debunked Anti-Fracking “Research”](#)

**The Potential Environmental Impact from Fracking in the Delaware River Basin**, Delaware River Keeper (August 2015)
- Energy In Depth debunk: [Four Facts to Know About a New Delaware Riverkeeper Commissioned Study](#)

**Unconventional Gas and Oil Drilling Is Associated with Increased Hospital Utilization Rates**, University of Pennsylvania and Columbia University (August 2015)
- Energy In Depth debunk: [Five Facts to Know About a New Pennsylvania Fracking and Health Study](#)

**Perinatal Outcomes and Unconventional Natural Gas Operations in Southwest Pennsylvania**, University of Pittsburgh (August 2015)
- Energy In Depth debunk: [Top Seven Facts on a New Univ. of Pitt. Infant Birth Weight Study](#)
- Magee-Womens Research Institute Foundation statement: [Unconventional Gas Drilling in Western Pennsylvania and Pregnancy Health](#)

**A Comprehensive Analysis of Groundwater Quality in The Barnett Shale Region**, University of Texas – Arlington (June 2015)
- Energy In Depth debunk: [UTA Groundwater Study: Four Key Facts](#)

**Health worries pervade North Texas fracking zone**, Center for Public Integrity (December 2014)
- Energy In Depth debunk: [Errors from Start to Finish in Center for Public Integrity’s Barnett Shale ‘Investigation’](#)

**Proximity to Natural Gas Wells and Reported Health Status: Results of a Household Survey in Washington County, Pennsylvania**, Yale University
- Energy In Depth debunk: [Yale Health Study Misses the Mark on Fracking](#)

**Noble gases identify the mechanisms of fugitive gas contamination in drinking-water wells overlying the Marcellus and Barnett Shales** (August 2014)
- Energy In Depth debunk: [Four Key Facts on a New Well Integrity Study](#)
Toward a better understanding and quantification of methane emissions from shale gas development, Proceedings of the National Academy of Sciences (April 2014)
  • Energy In Depth debunk: New Ingraffea Report: Same Old Tactics

Water Resource Reporting and Water Footprint from Marcellus Shale Development in West Virginia and Pennsylvania, Earthworks (October 2013)
  • Energy In Depth debunk: Earthworks Report Chooses Old Data Over New Data over-new-data/

Impacts of Shale Gas Wastewater Disposal on Water Quality in Western Pennsylvania, Duke University (October 2013)
  • Energy In Depth debunk: Five Facts About Duke’s Latest Anti-Shale Study shale-study/

  • Energy In Depth debunk: New Duke Paper a Rehash of Previous (Debunked) Studies debunked-studies/

Toxic and Dirty Secrets: The Truth about Fracking and Your Family’s Heath, Center for Environmental Health (June 2013)

Potential Contaminant Pathways from Hydraulically Fractured Shale to Aquifers, Tom Myers (May 2013)
  • Energy In Depth debunk: Currying Favor with Natural Gas Opponents, Myers “Defies Theories of Hydrogeology”

Methane and the Greenhouse-Gas Footprint of Natural Gas from Shale Formations, Robert W. Howarth, Renee Santoro, and Anthony Ingraffea, Cornell University (May 2011)
  • Energy In Depth debunk: Five Things to Know about the Cornell Shale Study
    • Lights Out: Sierra Club-Funded Study Finally Puts Discredited Cornell Paper to Bed
    • New Study Debunks Cornell GHG Paper, Again.
    • MIT Report Takes Square Aim at Howarth’s “Unreasonable” Inputs

Venting and leaking of methane from shale gas development: response to Cathles et al., Robert W. Howarth, Renee Santoro, and Anthony Ingraffea, Cornell University (January 2012)
  • Energy In Depth debunk: There They Go Again: Latest Cornell Paper Just More of the Same

Estrogen and Androgen Receptor Activities of Hydraulic Fracturing Chemicals and Surface and Ground Water in a Drilling-Dense Region, Posted on Endocrine Society (December 2013)
  • Energy In Depth debunk: New Inflammatory Study on Fracking and Endocrine Disruption: Five Key Facts endocrine-key-facts/

Why Fracking for Oil and Natural Gas Is a False Solution, Food and Water Watch (November 2012)
  • Energy In Depth debunk: Another Reality Check for Food & Water Watch watch/

Fracking by the Numbers, Environment America (October 2013)
  • Energy In Depth debunk: By the Numbers: Counting Down the Ways Environment America’s Report Comes Up Short

Natural Gas Extraction: An Interstate Tax Comparison, Independent Fiscal Office (IFO), (March 2014)
  • Marcellus Shale Coalition response: Independent Fiscal Office (IFO) Study Overview