September 2, 2011

Via Edgar and Federal Express
Mr. H. Roger Schwall
Assistant Director
U. S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, NE
Washington, DC 20549

RE: Range Resources Corporation
Form 10-K for the Fiscal Year Ended December 31, 2010
filed March 1, 2011
Form 10-Q for the Fiscal Quarter Ended March 31, 2011 filed April 27, 2011
Form 10-Q for the Fiscal Quarter Ended June 20, 2011 filed July 26, 2011
Form 8-K filed on May 5, 2011
(File No. 1-12209)

Dear Mr. Schwall:

On August 17, 2011, Range Resources Corporation (the "Company"), received comments from the staff (the "Staff") of the Division of Corporation Finance of the Securities and Exchange Commission to the above referenced Form 10-K, 10-Q's and 8-K. We respectfully submit the following responses to your inquiry. For your convenience, each response is prefaced by the exact text of the Staff's comment in italicized text.

With respect to comments 11, 13, 14 and 15, we are simultaneously sending the Staff a supplemental response, submitted with a request for confidential treatment pursuant to Rule 83, containing information and material responsive to these comments.

Form 10-K for the Fiscal Year December 31, 2010

General

Inquiry:

1. You discuss throughout your filing that you utilize hydraulic fracturing (fracking) in your operations as means to maximize the productivity of your wells. Please tell us, with a view for disclosure:

- *The anticipated costs and funding associated with fracking activities; and*
- *Whether there have been any incidents, citations, or suits related to your fracking operations for environmental concerns, and if so, what has been your response.*
- *In this regard, we notice that you have been cited a number of times by the Pennsylvania Department of Environmental Protection for, among other things, discharge of pollutional materials, stream discharge and failure to properly store, transport, process or dispose of residual waste. With a view towards possible disclosure, tell us what steps you have taken to correct such occurrences.*

Response:

The hydraulic fracturing process is integral to our overall drilling and completion costs. The anticipated cost of our hydraulic fracturing activities has many variables which include, among other things, the operating region, the number of frack stages and pounds per square inch on the particular job. We currently have a long term agreement with an independent contractor to provide dedicated fracturing services in our Marcellus region. The costs included in this

contract, based on a typical number of fracturing stages, averages approximately $1.3 million per well. We expect that all of our capital requirements to be funded by net cash flow from operations, proceeds from asset sales and borrowings under our bank credit facility.

There are currently no pending suits related to our hydraulic fracturing operations. During 2010, we received notices of violations or citations from the Pennsylvania Department of Environmental Protection ("PADEP") for spills occurring on well pads and from pipelines while pumping water for hydraulic fracturing operations. We have also received violations for leaks from two impoundments in Pennsylvania which contained water from our hydraulic fracturing operations. In all instances, the spills were immediately contained, absorbents or pumps were used to pick up standing water, effected soil was excavated and disposed of and, in the case of the impoundments, liner systems were inspected and repaired by a professional liner company. We also received a notice of violation from the Virginia Division Gas and Oil for nitrogen used during hydraulic fracturing that circulated between the 4.5 inch and 7 inch casing. Since then, we have instituted a procedure where the 4.5 inch casing is cemented back up to the 7 inch casing where possible.

Following each of these spill incidents, we performed an evaluation to determine what preventative practices should be instituted to prevent re-occurrence at the site or other sites. These evaluations have resulted in the implementation of additional practices such as full-site containment during hydraulic fracturing operations, standardized operating and testing practices when using above ground pipeline to transfer water to or from hydraulic fracturing operations and the utilization of a double-liner system and permanent manifold system at our impoundments.

To date, none of these incidents have resulted in material fines or penalties or are otherwise material to us. We will continue to monitor the significance of these incidents with a plan for additional disclosure in the future should they become material.

Inquiry:

2. In regard to your fracking operations, please also tell us what steps you have taken to minimize any potential environmental impact. For example, and without limitation, please explain if you:

- *Have steps in place to ensure that your drilling, casing and cementing adhere to known best practices;*
- *Monitor the rate and pressure of the hydraulic fracturing treatment in real time for any abrupt change in rate or pressure and/or detection of fluid leak-off;*
- *Evaluate the environmental impact of additives to the hydraulic fracturing fluid, including disclosure of all chemicals involved, in the volumes/concentration and total amounts utilized;*
- *Perform a baseline assessment of nearby water sources, and have the capability to monitor for, and potentially detect, these chemicals in local water supplies; and*
- *Minimize the use of water and/or dispose of the flowback water in a way that minimizes the impact to nearby surface water.*

Response:

Fracture stimulation is a proven technology that has been used safely for over 60 years. Our current drilling, casing and cementing practices are designed and structured to comply with all requirements of the regulatory agencies in the states in which we operate. This includes the Pennsylvania Department of Environmental Protection Chapter 78 — Oil and Gas Wells regulations that was updated in 2010.

Our hydraulic fracturing treatment variables are closely monitored during execution of the hydraulic fracturing operation. Equipment to the job is linked together with communication systems allowing onsite supervision to monitor such variables as surface treating pressure, fracturing rate, fluid density and chemical concentrations. Data is collected in one second increments and displayed at the on-site control center. This allows location supervisors to make real-time decisions based on real-time data. Personnel involved are trained to respond appropriately to any unusual pressure responses. In addition, this data is downloaded to create reports for further analysis.

In our Marcellus operating region, we use a mixture consisting primarily of water and sand in the fracturing process. We have reviewed all chemicals involved in the fracturing process and believe that they are present in such diluted concentrations that they do not have any discernable environmental impact. By volume, sand and water make up approximately 99.9% of the materials used in our fracturing process. For information on remaining chemicals, we refer the Staff to our response to inquiry #3 of this letter.

In Pennsylvania, an operator must be able to legally defend against a claim of having affected water quality or quantity of any private or public water supply within 1,000 feet of the surface location of an oil and gas well. As a result, we perform baseline assessments of all identified private and public water sources that meets or exceeds PADEP

requirements. For example, we perform baseline assessments within 2,500 feet of a natural gas well location. Sampling and analysis is conducted prior to construction of the site.

We continually monitor and evaluate the effectiveness of our fracturing procedures to minimize water usage costs. In our Marcellus operations, brine, drilling and frack fluid water is (1) collected at the location and transported to a third-party owned, operated and permitted treatment facility or (2) transported directly to injections wells in Ohio or (3) recycled. In our Southern Marcellus operation, we recycle approximately 50% of brine water. In Texas and Oklahoma, any fluid produced during flowback is recovered and disposed of in permitted disposal wells. We currently track all water in Pennsylvania through the use of a manifest tracking system.

Inquiry:

3. Please provide us with a report detailing all chemicals used in your hydraulic fracturing fluid formulation/mixtures, in the volume/concentration and total amounts utilized, for representative wells in each basin where hydraulic fracturing is a method you use.

Response:

We are providing to the Staff (as Exhibit A to this letter), a chart listing the fracturing fluid formulation/mixtures for a representative set of wells in each basin where we operate. We also note, for the Staff's information, that since July 2010, we were one of the first companies to voluntarily provide, on our company website, the composition of each hydraulic fracturing component for all wells operated by us and completed to the Marcellus Shale formation. Also, in compliance with a law enacted in Texas in June 2011, we will disclose hydraulic fracturing data to the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission chemical registry. This disclosure, as well as the total volume of water used in the hydraulic fracturing treatment, will be required for each chemical ingredient that is subject to the requirements of federal Occupational Safety and Health Act regulations.

Inquiry:

4. At an appropriate place in the MD&A discussion or elsewhere, please disclose the scope and the limits of your insurance coverage with respect to pollution liability.

Response:

We note your comment and refer the Staff to our risk factor "Our business is subject to operating hazards that could result in substantial losses or liabilities that may not be fully covered under our insurance policies" on page 13 of our Annual Report on Form 10-K for December 31, 2010, which details that we maintain insurance against some but not all potential risks and losses as a result of pollution or other environmental damages. We also state, in this same risk factor, that pollution and environmental risks generally are not fully insurable and if a significant accident or other event were to occur that was not fully coverable by insurance, it could have a material adverse affect on our financial condition or results of operations.

We also refer the Staff to our MD&A discussion under the section entitled "Management's Discussion and Analysis of Financial Condition, Capital Resources and Liquidity — Other", on page 47 of our Form 10-K for December 31, 2010 where we explain that our expenditures to comply with environmental or safety regulations have not been significant and are not expected to be significant in the future. However, new regulations, enforcement policies, claims for damages or other events could result in significant future costs.

We respectfully submit that our current disclosure provides adequate information about the scope of our insurance and associated limits as well as the risks associated with the limitations on our insurance.

Inquiry:

5. We note that in a risk factor on page 18 you disclose that Pennsylvania, among other states, has adopted a variety of well construction, set back, and disclosure regulations limiting how fracturing can be performed and requiring various degrees of chemical disclosure. Considering that the majority of your reserves and production currently comes from properties in Pennsylvania, please discuss Pennsylvania's regulations in greater detail and any impact on your operations. In this regard, for example, we note that the Pennsylvania Department of Environmental Protection recently mandated that all Marcellus Shale natural gas drilling operators cease by May 19, 2011 delivering wastewater from shale gas extraction to 15 facilities that previously accepted it. Also, we note that the Pennsylvania Governor's Marcellus Shale Advisory Commission

released its report on July 22, 2011, which, for instance, has proposed a series of initiatives to protect groundwater. In this regard, we note that in response to a question during your second quarter earnings conference call, your CEO John Pinkerton discussed that while there were not any major surprises in the report, "now the hard work starts. You've got to take those recommendations and turn them into something."

Response:

The Commonwealth of Pennsylvania has adopted or promulgated a set of well construction, set back and disclosure provisions which have gone through a series of amendments with which we comply. For example, the Pennsylvania Department of Environmental Protection Chapter 78 — Oil and Gas Wells regulations were updated in 2010. These new regulations covered new casing and cementing practices that we had already adopted and therefore, had no impact on our operations.

The referenced mandate for all Marcellus Shale drilling operators to cease delivering wastewater to 15 facilities did not affect us. At the time the mandate was issued, we were not using any of the 15 facilities and we certified that fact in writing on July 15, 2011 to the PADEP.

The Pennsylvania Governor's Marcellus Shale Advisory Commission's report included 96 recommendations that range from creating natural gas fueling station corridors to reporting the county of origin for any steel products used in producing natural gas, as well as several environmental safety recommendations. As to the environmental recommendations in the report, we are already currently complying with many of the recommendations set forth in this report. Regarding the excerpt from our July 26, 2011 second quarter conference call, we believe that the full context of Mr. Pinkerton's answer, particularly the sentences appearing before and after the sentence you cited in your comment, effectively explains our sentiments concerning the Pennsylvania Marcellus Shale Advisory Commission Report and current Pennsylvania regulations. The full quotation reads as follows "*So, I think it's a great step forward, and I really commend them for the work that was done in a relatively short period of time. But now, the hard work starts. You've got to take those recommendations and turn them into something. So, we'll continue to work really hard and dedicate a lot of resources to making sure it's done and quite frankly, done right, which is one of the things that we've always talked about.*" When read in full context, it is clear that we support the work of the Commission.

Marketing and Customers, page 5

Inquiry:

6. You indicate, here and elsewhere, that you hedge "a substantial but varying portion" of your production. Expand your discussion under MD&A, to quantify the term "substantial" for each of the periods you discuss.

Response:

Our reference to hedging "a substantial but varying portion" of our production is meant to indicate that we hedge a considerable amount of our future production at any one time. The percentage of our production that is hedged will be different at any point in time. In our MD&A section entitled "Management's Discussion and Analysis of Financial Condition, Capital Resources and Liquidity — Hedging", we provide derivative contract information by year, by type of derivative contract, production volumes hedged and hedged prices as of December 31, 2010. As these disclosed hedges extend far beyond the period covered by our production guidance, we do not link these disclosures to like period production volumes. We believe that our disclosures provide adequate information that allows our investors to quantify the effect of hedging on our future financial results.

Reserve Estimation, page 25

Inquiry:

7. You describe the services performed by the independent consultants as a "review". However, in the reports, they indicate that they performed a "reserve audit". A process review is different than a reserve audit. Revise your disclosure to be consistent with the third party reports and summarize the nature of work performed. See Part IV.B.3.d, e and f of Securities Act Release 33-8995.

Response:

Our proved reserves are those reserves prepared by our own reserve engineering staff. We disclose that, as of December 31, 2010, our third party consultants reviewed approximately 90% of our proved reserves. As indicated by our third party reports, our proved reserves are "audited" as defined in Item 1202 of Regulation S-K. We also disclose on page 25 and on page 50 of our Annual Report on Form 10-K for the year ended December 31, 2010, the historical difference between our reserves and those of our third party engineers. Our distinction of "reviewed" was used to clarify which reserves were included in our disclosures. In future filings, we will clarify that 90% of our reserves have been audited by our third party engineers.

Financial Statements

Note 11 — Fair Value Measurements, page F-27

Inquiry:

8. We note your disclosures indicating that the Barnett properties did not meet held-for-sale criteria as of December 31, 2010 and see that you began presenting these assets as held-for-sale in the financial statements for the quarter ended March 31, 2011 in Form 10-Q. Please tell us why you believe the Barnett assets did not meet the held-for-sale criteria as of December 31, 2010, providing details sufficient to understand how your conclusion is consistent with FASB ASC paragraph 360-10-45-9.

Response:

Held-for-sale criteria is governed by ASC 360 Impairment or Disposal of Long-Lived Assets. A disposal group (which our Barnett assets qualified for) is considered held for sale when all of the six criteria set forth in ASC 360-10-45-9 are met in the reporting period. All of the criteria were not met as of December 31, 2010, as our Board of Directors (the appropriate level of authority needed to sell these assets) had not committed to a plan to sell the Barnett assets. During the fourth quarter 2010, the Board of Directors approved a plan by management to market the Barnett assets as part of an assessment of possible funding sources for our projected 2011 capital budget but had not committed to selling such assets at that time. As a result of the plan to market such assets, we opened a data room during the fourth quarter 2010. However, no bids had been received as of year-end. The Board of Directors approved the plan to sell the Barnett assets subsequent to December 31, 2010 (i.e. on February 28, 2011).

Exhibits 23.2 — 23.4

Inquiry:

9. We note that you have filed the consents of your third party petroleum engineers. However, insofar as the Exchange Act does not provide for the filing of a consent, you should not include text which may be read to suggest otherwise. If you attach the consent of your third party petroleum engineers as exhibits to your annual report, any consent needs to make clear that it is only referring to the consent for the report to be incorporated by reference into filings under the Securities Act of 1933. Please obtain and file revised consents.

Response:

We note the Staff's comment. Concurrently with the submission of this letter, we are filing through EDGAR a Form 10-K/A for December 31, 2010 with the revised version of our third party petroleum engineer's consents.

Form 8-K filed on May 5, 2011

Exhibit 99.1

Unaudited Consolidated Pro Forma Financial Statements

Inquiry:

10. We note that you include pro forma financial information to illustrate the effect of the sale of your Barnett Shale assets on your historical financial position and operating results. To the extent this disposition includes quantifiable reserves as defined by FASB ASC Section 932-360-20, please also provide pro forma reserve data as of March 31, 2011 and pro forma production quantities for the interim and annual periods presented.

Response:

We have reviewed Article 11 of Regulation S-X which presents the requirements for pro forma financial information and did not identify a specific requirement to disclose pro forma reserve information for a disposition. As a result, we believe our disclosures included in our Form 8-K filed on May 5, 2011 comply, in all material respects, with the disclosure requirements of Article 11 of Regulation S-X. However, we understand that certain information could be useful to an investor, and as a result, we provided December 31, 2010 reserve information for our discontinued operations on page F-39 in our Form 8-K filed on May 6, 2011, production information for our discontinued operations for the quarter ended March 31, 2011 in Note 5 to our consolidated financial statements set forth in our first quarter Form 10-Q and our Barnett properties production volumes for three years (2010, 2009 and 2008) set forth in our Annual Report on Form 10-K for the year ended December 31, 2010, filed on March 1, 2011, on pages 21 and 22. Based on such disclosures, we believe an investor can assess the impact of the disposition of Barnett assets on our production and reserves. We are not aware of any significant changes to our discontinued operation's proved reserves since year end 2010 other than production.

Engineering comments

Form 10-K for the Fiscal Year Ended December 31, 2010

Business, page 1

Marketing and Customers, page 5

Inquiry:

11. We note your statement, "[c]urrently, there is little demand, or facilities to supply the existing demand, for ethane in the Appalachian region so, for our Appalachian production volumes, ethane remains in the natural gas stream." Please explain to us the risk that the retained ethane will cause the natural gas stream to be non-compliant with pipeline specification. Address the portion of your proved reserves affected.

Response:

We have separately provided the requested information in hardcopy pursuant to a request for confidential treatment.

Properties, page 20

Inquiry:

12. We note that, while your website presents four maps of your operating areas, there are no maps disclosed in your document for your principal properties. Please expand your property descriptions to include the Nora area and appropriate maps.

Response:

We acknowledge your comment concerning an expanded description, however, we do not concur with the Staff's suggestion that maps are required. We have reviewed Item 102 and Subpart 1200 of Regulation S-K and have concluded maps are not required for those companies involved in oil and gas producing activities. We believe our properties are fully described on pages 20, 21, 22 and 23 of our Annual Report on Form 10-K for the year ended December 31, 2010 and includes, among other things, descriptions of which states our properties are located in and which formations our reserves produce from. Our Nora properties, which are located in the western portion of Virginia, are included in our Appalachian region is described on page 22 of our Annual Report on Form 10-K for the year ended

December 31, 2010. However, in response to the Staff's comment, we would propose, on a prospective basis, to revise our description of our Nora properties to include the statement "which is located in the western portion of Virginia".

Proved Undeveloped Reserves (PUDS), page 26

Inquiry:

13. We note the additions by drilling (on page F-41) to your year-end 2010 proved undeveloped reserves — 1,149 BCFE — and the 2010 total proved drilling additions — 1,410 BCFE. The proved developed drilling additions are the difference between these figures, about 261 BCFE- and appear to be attributable to the 260 net producing wells you drilled in 2010. With reasonable detail, including representative maps, please illustrate to us the methodology you used to attribute PUD reserves to locations not adjacent to productive wells in the Marcellus shale play.

Response:

We have separately provided the requested information in hardcopy pursuant to a request for confidential treatment.

Inquiry:

14. Please submit to us the petroleum engineering reports — in hard copy and electronic spreadsheet format — you used as the basis for your 2010 Marcellus shale proved reserve disclosures. The reports should include:

a) One-line recaps for each property sorted by field and by present worth within each proved reserve category including the dates of first booking and estimated first production for your proved undeveloped properties;

b) Total company summary income forecast schedules for each proved reserve category with proved developed segregated into producing and non-producing properties;

c) Individual income forecast for each of the three larges (net equivalent reserve basis) wells in the proved developed and proved undeveloped categories as well as the AFE for each of the three PUD locations;

d) Individual income forecasts for each of three median properties (net equivalent reserve basis) in the proved developed and proved undeveloped categories as well as the AFE for each of the three PUD locations;

e) Engineering exhibits (e.g. maps, rate/time plots, volumetric calculations, analogy well performance) for each of these 12 properties.

f) Narratives and engineering exhibits (e.g. performance plots, volumetric calculations) for the three largest 2010 reserve revisions — both negative and positive — caused by performance, not economics, in the Marcellus shale play.

g) Hindsight analyses and comparison of the amalgamated estimated ultimate reserves for all your Marcellus PUD locations booked at year-end 2009 that were drilled in 2010. Include brief narratives and base maps reconciling the three largest PUD reserve estimates in this group to their current estimates. Address your corporate methodology for eliminating any significant error here.

Response:

We have separately provided the requested information in hardcopy pursuant to a request for confidential treatment.

Inquiry:

15. With reasonable detail, please explain to us the:

- *Terminal decline rates employed in the proved reserve estimates for your Marcellus shale play, the technical support for them (including analogy fields) and the effect of increasing/decreasing the decline rates by 25% on Estimated Ultimate Recovery and economic well life;*
- *Results of your Marcellus shale refracture treatments, if any, as well as provisions for such future treatments.*

Response:

We have separately provided the detail of the requested information in hardcopy pursuant to a request for confidential treatment.

Notes to Consolidated Financial Statements, page F-10

Proved developed and undeveloped reserves, page F-41

Inquiry:

16. We note large increases to your proved reserves in each of the last three years. FASB ASC paragraph 932-235-50-5 requires the "appropriate explanation of significant changes" to proved reserves. Please expand your discussion to comply with ASC 932.

Response:

We have reviewed FASB ASC 932-235-50-5. We note that in making this comment we believe you reviewed the section on page F-41. The significant increases were directly attributed to our ongoing exploration and development activities and we believe our comment stating "During 2010, various exploration and development drilling evaluations were completed" as set forth in footnote 19 on page F-42 addresses these significant changes in the context of our business as described in the Annual Report on Form 10-K. In addition to the information reviewed by the Staff, we refer you to the sections in our Annual Report on Form 10-K for the year ended December 31, 2010 entitled "Appalachian Region" on page 22, "Southwestern Region" on page 23, "Proved Reserves" on page 24 and "Drilling Activity" on page 27. We believe that our current disclosures are in compliance with the referenced rule. However, in response to the Staff's comment, we respectfully propose that in future filings on Form 10-K, we add a cross-reference in the footnote to other reserve disclosures in other portions of the Annual Report on Form 10-K.

Exhibit 99.1 and Exhibit 99.3

Inquiry:

17. We note the statement on page 25 that your third party engineers comply with the professional qualifications per the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information promulgated by the Society of Petroleum Engineers. Item 1202(a)(7) of Regulation S-K specifies that the qualifications of the technical person responsible for overseeing a reserves audit be disclosed. Please present third party engineering reports that include the particular qualifications of the engineer primarily responsible for the reserves audit.

Response:

We note the Staff's comment. Concurrently with the submission of this letter, we are filing through EDGAR a Form 10-K/A for December 31, 2010 with the revised version of our third party petroleum engineer's reports.

Exhibit 99.2

Inquiry:

18. Please present a third party engineering report that includes the purpose for which the report was prepared and the location of the properties audited as specified in Item 1202 (a)(8) of Regulation S-K.

Response:

We note the Staff's comment. Concurrently with the submission of this letter, we are filing through EDGAR a Form 10-K/A for December 31, 2010 with the revised version of our third party petroleum engineer report.

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In connection with the foregoing responses, the undersigned, on behalf of the Company, acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff comments or changes to disclosures in response to Staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please contact the undersigned at (817) 869-4224 if you have additional questions or comments.

Sincerely,

/s/ Roger S. Manny

Roger S. Manny
Executive Vice President and Chief Financial Officer

Cc: John H. Pinkerton, Chief Executive Officer
David P. Poole, Senior Vice President and General Counsel
Stephen M. Gill — Vinson & Elkins LLP
Kevin Dougherty — United States Securities and Exchange Commission

Exhibit A

Southwestern Region — Woodford

Chemical Trade Name *	Description	Concentration (gal/Mgal)	Chemical Volume (gal per well)
FRW-20	Friction reducer	0.75	2,862
GBW-5	Breaker	0.75	2,862
ALPHA 114	Biocide	0.35	1,336
Scaletrol 7208	Scale inhibitor	0.15	572
NE-900	Non-emulsifier	1	3,816
Ferrotrol 300L	Iron control agent	5	180
CL-31	Corrosion inhibitor	1	36
15% NeFe Acid	Acid		36,000
Water used (gals)			3,816,000
Proppant (lbs)			4,311,000

Southwestern Region — Mississipian/Chattanooga

Chemical Trade Name *	Description	Concentration (gal/Mgal)	Chemical Volume (gal per well)
FRW-20	Friction reducer	0.75	2,184
GBW-5	Breaker	0.75	2,184
ALPHA 114	Biocide	0.25	728
NE-900	Non-emulsifier	0.5	1,456
Ferrotrol 300L	Iron control agent	5	210
CL-31	Corrosion inhibitor	2	84
7.5% NeFe Acid	Acid		42,000
Water used (gals)			2,912,000
Proppant (lbs)			1,470,000

Southwestern Region — St. Louis

Chemical Trade Name *	Description	Concentration (gal/Mgal)	Chemical Volume (gal per well)
AMA-35DP	Biocide	0.05	11
Claymax	Clay control	0.5	113
LGC	Gelling agent	5	1,125
Ammonium Persulfate	Breaker	1	225
Plexsurf 210E	Surfactant	1	225
SP-955	Iron control agent	5	1,125
AR-104	Acid gelling agent	5	1,125
AI-260	Corrosion inhibitor	2	450
20% Gelled Acid	Acid		225,000
Water used (gals)			225,000
Proppant (lbs)			120,000

Appalachian Region — Marcellus

Chemical Trade Name *	Description	Concentration (gal/Mgal)	Chemical Volume (gal per well)
FRW-300W	Friction reducer	0.5	1,700
B-8650+CS-1135	Biocide	0.285	1,000
MX-588-2	Scale inhibitor	0.1	34
NE-100	Non-emulsifier	0.4	8
FE-100L	Iron control agent	1.2	24
Cl-150	Corrosion inhibitor	0.8	16
7.5% HCl Acid	Acid		20,000
Water used (gals)			3,150,000
Proppant (lbs)			5,000,000

Appalachian Region — Lower Huron

Chemical Trade Name *	Description	Concentration (gal/Mgal)	Chemical Volume (gal per well)
Magnacide 575	Biocide	0.05	1
Inflo 250W	Surfactant	1	10
ClayCare	Clay control	1	10
Water used (gals)			9,200
Nitrogen (scf)			18,162,800

Appalachian Region — Berea

Chemical Trade Name *	Description	Concentration (gal/Mgal)	Chemical Volume (gal per well)
Enzyme G-NE	Breaker	0.5	36
GW-3LDF	Guar gelling agent	5	351
Magnacide 575	Biocide	0.05	6
FAW-5	Foaming agent	4	279
Inflo 250W	Surfactant	1	126
ClayCare	Clay control	1	126
Water used (gals)			107,520
Nitrogen (scf)			6,780,900
Proppant (lbs)			450,000

Appalachian Region — Big Lime

Chemical Trade Name *	Description	Concentration (gal/Mgal)	Chemical Volume (gal per well)
Magnacide 575	Biocide	0.05	4
FAW-5	Foaming agent	4	153
Inflo 250W	Surfactant	1	63
LT-32	Surfactant	1	27
ClayCare	Clay control	1	63
CL-14	Corrosion inhibitor	2	45
Clay Master 5C	Clay control	1	27
Ferrotrol 300L	Iron control agent	4	81
NE-118	Non-emulsifier	0.05	13
15% HCL Acid	Acid		20,000
Water used (gals)			69,804
Nitrogen (scf)			5,707,500

Appalachian Region — Conventional Vertical Wells

Chemical Trade Name *	Description	Concentration (gal/Mgal)	Chemical Volume (gal per well)
Magnacide 575	Biocide	0.05	2
FAW-5	Foaming agent	4	105
Inflo 250W	Surfactant	1	38
LT-32	Surfactant	1	2
ClayCare	Clay control	1	38
CL-14	Corrosion inhibitor	2	4
Clay Master 5C	Clay control	1	2
Ferrotrol 300L	Iron control agent	4	8
Enzyme G-NE	Breaker	0.5	14
GW-3LDF	Guar gelling agent	5	59
15% HCL Acid	Acid		2,000
Water used (gals)			913,482
Nitrogen (scf)			1,896,900
Proppant (lbs)			185,000

* All chemicals match MSDS sheets on site locations.