COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of:

Cabot Oil & Gas Corporation	:	Clean Streams Law, the
Dimock and Springville, Townships	:	Oil and Gas Act, and the
Susquehanna County	:	Solid Waste Management Act
	:	

MODIFICATION TO CONSENT ORDER AND AGREEMENT
DATED NOVEMBER 4, 2009

This Modification to the November 4, 2009 Consent Order and Agreement ("Modification") is entered into this 15th day of April 2010, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department") and Cabot Oil & Gas Corporation ("Cabot").

Findings

The Department has found and determined the following:

A. The Department is the agency with the duty and authority to administer and enforce The Clean Streams Law, Act of June 22, 1937, P.L. 1987, *as amended*, 35 P.S. §§691.1-691.1001 ("Clean Streams Law"); the Oil and Gas Act, Act of December 19, 1984, P.L. 1140, *as amended*, 58 P.S. §§601.101-601.605 ("Oil and Gas Act"); the Solid Waste Management Act, Act of July 7, 1980, P.L. 380, *as amended*, 35 P.S. §§6018.101-6018.1003 ("Solid Waste Management Act"); Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, *as amended*, 71 P.S. §§510-17 ("Administrative Code"); and the rules and regulations promulgated thereunder ("Regulations").

B. Cabot is incorporated in Delaware and registered to do business in Pennsylvania, and is engaged in various oil and gas exploration and production activities in Pennsylvania, including in Dimock and Springville Townships, Susquehanna County. Cabot's mailing address in Pennsylvania is 5 Penn Center West, Suite 401, Pittsburgh, PA 15276.

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November 4, 2009 Consent Order and Agreement

C. On November 4, 2009, the Department and Cabot entered into a Consent Order and Agreement ("2009 Agreement") in settlement of violations regarding: excessive pressure/improper or insufficient cementing (casings) on certain Cabot Wells; pollution of private water supplies within an area defined as follows: the area bounded on the South of 41 degrees 45 minutes latitude; East of -75 degrees 54 minutes 11 seconds longitude; North of 41 degrees 42 minutes 14 seconds latitude; and West of -75 degrees 50 minutes 48 seconds longitude in Dimock and Springville Townships, Susquehanna County, Pennsylvania ("Affected Area"); discharge of natural gas into ground water in the Affected Area; discharge of industrial waste/and or residual waste onto the ground and/or into the waters of the Commonwealth; failure to submit well records; and failure to maintain a Driller's Log. The 2009 Agreement is maintained as a public document by the Department at its Northwest Regional Office in Meadville, PA, and is incorporated herein in full.

D. Cabot did not comply with all of its obligations under the 2009 Agreement. As discussed further below, Cabot did not comply with the requirements of Paragraph 4.i.2) of the 2009 Agreement, as it failed to identify in its "Integrity Report" all of the Cabot Wells that had insufficient/improper casing and/or cementing, and it failed to identify the specific corrective actions needed to address the Gesford 3 and Gesford 9 Wells which the Department had already determined to have insufficient/improper casing and/or cementing as documented in Paragraph I in the 2009 Agreement.

E. As also discussed further below, Cabot did not comply with the requirements of Paragraph 4.l. of the 2009 Agreement, as it failed, by March 31, 2010, to complete any and all actions to prevent the unpermitted discharge of natural gas from the Cabot Wells or any other well owned and/or operated by Cabot within the Affected Area and into the waters of the Commonwealth.

F. Pursuant to Paragraph 4.i. of the 2009 Agreement, Cabot submitted an "Integrity Plan" to the Department which identified how Cabot would test for and ensure the integrity of the casing and cement of certain Cabot Wells. On November 20, 2009, the Department approved the Integrity Plan.

G. On February 3, 2010, the Department received from Cabot the Integrity Report which identified the results from the testing that it had done in accordance with the approved Integrity Plan.

H. Paragraph 4.i.2) of the 2009 Agreement required that the Integrity Report describe the tests completed, test results, and any corrective actions needed to address the Cabot Wells, including the Gesford 3 and Gesford 9 Wells, that had insufficient/improper casing and/or cementing.

I. On March 9 and 10, 2010, the Department inspected certain Cabot Wells and observed that gas bubbling was continuing to occur in the cellar for the Ely No. 5H Well and the Ely No. 7H Well, contrary to the results reported by Cabot in its Integrity Report.

J. Additionally, the Department observed gas bubbling in the cellars for the following Cabot Wells in the Affected Area: Gesford No. 2; Hubbard No. 5H; Ratzell No. 1H; Ratzell No. 2H; and Teel No. 7. The presence of gas bubbling in the cellars of these Cabot Wells indicates that these Wells may also have insufficient and/or improper cemented casings.

K. Cabot is the "owner" and "operator," as those terms are defined in Section 103 of the Oil and Gas Act, 58 P.S. §601.103, of the R Smith No. 4 Well, authorized under Permit No. 115-20075, and located in Springville Township, Susquehanna County. The R Smith No. 4 Well is hereby included within the Affected Area that is the subject of the 2009 Agreement and this Modification.

L. On March 10, 2010, the Department observed gas bubbling in the cellar of the R Smith No. 4 Well.

M. Pursuant to Paragraph 5 of the 2009 Agreement, the Department reviewed the Integrity Report and, on March 31, 2010, the Department sent a letter to Cabot that identifies the deficiencies with the Integrity Report. The Department's March 31, 2010 deficiency letter is maintained as a public document by the Department at its Northwest Regional Office in Meadville, PA, and is incorporated herein.

N. As discussed in the Department's March 31, 2010 deficiency letter, among other things, the Integrity Report failed to identify the specific corrective actions needed to address the Gesford 3 and Gesford 9 Wells which the Department had already determined to have insufficient/improper casing and/or cementing as documented in Paragraph I in the 2009 Agreement.

Kemble Water Supply

O. On January 10, 2009, the Department collected samples from a well that provides drinking water to the residence owned by Ray Kemble and located within the Affected Area ("Kemble Water Supply"). The samples taken on January 10, 2009, contained dissolved methane gas at a concentration of .015 mg/l.

P. On January 28, 2010, the Department again collected samples from the Kemble Water Supply, and those samples contained dissolved methane gas at a concentration of 23.6 mg/l.

Q. On March 8, 2010, the Department notified Cabot about the elevated concentration of dissolved methane gas in the Kemble Water Supply.

R.

1. The Department has determined that, based on the elevated concentration of dissolved methane gas in the Kemble Water Supply, the close proximity of the Kemble Water Supply to the Cabot Wells, the close proximity of the Kemble Water Supply to the Affected Water

Supplies as identified in the 2009 Agreement, and other factors, Cabot is also responsible for the pollution to the Kemble Water Supply.

2. The Kemble Water Supply is hereby added to the Affected Water Supplies identified in the 2009 Agreement.

S. In resolution of Cabot's failure to comply with all of its obligations under the 2009 Agreement, and to address the pollution of the Kemble Water Supply, the Department has agreed to modify the 2009 Agreement pursuant to Paragraph 17 of the 2009 Agreement and as identified herein. Cabot agrees to comply with all of its obligations under the 2009 Agreement and this Modification. In addition, the Department has notified Cabot that no further modifications will be made to the 2009 Agreement.

Order

After full and complete negotiation of all matters set forth in this Consent Order and Agreement, and upon mutual exchange of the covenants contained herein, the Parties desiring to avoid litigation and intending to be legally bound, it is hereby ORDERED by the Department and AGREED to by Cabot as follows:

1. ***Authority***. This Modification is an Order of the Department and is authorized and issued pursuant to Section 5 of the Clean Streams Law, 35 P.S. §691.5; Section 503 of the Oil and Gas Act, 58 P.S. §601.503; Section 602 of the Solid Waste Management Act, 35 P.S. §6018.602; and Section 1917-A of the Administrative Code.

2. ***Findings***.

a. Cabot agrees that the Findings in Paragraphs A through S, above, are true and correct and, in any matter or proceeding involving Cabot and the Department, Cabot shall not challenge the accuracy or validity of these Findings.

b. The Parties do not authorize any other persons to use the Findings in the 2009 Agreement and this Modification in any matter or proceeding.

3. ***Paragraph 3 of the 2009 Agreement.*** Paragraph 3 of the 2009 Agreement shall be modified in its entirety and shall be replaced with the following:

3. ***Compliance, No Appeal, and Cease New Drilling/Hydro-Fracturing.***

a. Cabot shall take **any and all** actions necessary within the Affected Area, including the corrective actions set forth in the 2009 Agreement and this Modification, to attain and/or maintain compliance with all applicable environmental laws and regulations, including all applicable provisions of the Clean Streams Law, Oil and Gas Act, Solid Waste Management Act, and the Regulations.

b. Cabot hereby agrees to not appeal any decision by the Department on or arising from any matter under the 2009 Agreement and this Modification. Any objection which Cabot may have to such decision will be preserved until the Department enforces the 2009 Agreement and this Modification.

c. Regarding Cabot Wells within the Affected Area that are permitted as of the date of this Modification:

1) Regarding any permitted Cabot Wells within the Affected Area where drilling has not been commenced as of the date of this Modification ("Permitted Undrilled Wells"), in all cases Cabot shall not commence drilling any such Wells for a minimum of one year from the date of this Modification. Before the drilling permit expires for a Permitted Undrilled Well, Cabot may submit a request to the Department to renew the drilling permit in accordance with 25 Pa. Code §78.17. After one year from the date of this Modification, Cabot may commence drilling any or all such Permitted Undrilled Wells within the Affected Area upon obtaining the drilling permit renewal **and** upon receipt of written notice that the Department has determined that Cabot has completed all of its obligations under the 2009 Agreement and this Modification in accordance with the schedules contained therein and has completely eliminated the

unpermitted discharge of natural gas into the waters of the Commonwealth from the Defective Wells (as defined in Paragraph 4.i.1), below) and/or from any other well owned and/or operated by Cabot within the Affected Area.

2) The following seven (7) permitted Cabot Wells within the Affected Area have been drilled, but hydro-fracturing has not commenced as of the date of this Modification: A&M Hibbard No. 2H; A&M Hibbard No. 4H; Ely No. 1H; Baker No. 3H; Gesford No. 4R; Gesford No. 8H; and P. Kelly No. 1H. Cabot shall not commence hydro-fracturing of any such Wells until it has received written notice that the Department has determined that Cabot has completed all of its obligations under Paragraphs 4.i.2)(well plugging only), 4.i.3), 4.i.6), and 4.m., below, of this Modification in accordance with the schedules contained therein.

d. As of the date of this Modification, Cabot has submitted to the Department applications for permits to drill four additional gas wells within the Affected Area and 25 additional gas wells outside the Affected Area.

1) Regarding any current or future applications from Cabot for permits to drill additional gas wells within the Affected Area, in all cases no such permits will be issued by the Department for a minimum of one year from the date of this Modification. Cabot may submit to the Department applications to drill additional gas wells within the Affected Area, but such permits will not be issued until after one year from the date of this Modification **and** Cabot has received written notice that the Department has determined that Cabot has completed all of its obligations under the 2009 Agreement and this Modification in accordance with the schedules contained therein, and has completely eliminated the unpermitted discharge of natural gas into the waters of the Commonwealth from the Defective Wells (as defined in Paragraph 4.i.1), below) and/or from any other well owned and/or operated by Cabot within the Affected Area.

2) Regarding any current or future applications from Cabot for permits to drill additional gas wells outside the Affected Area, no such permits will be issued by the Department until it has determined that Cabot has completed all of its obligations under Paragraphs 4.i.2)(well plugging only), 4.i.3), and 4.m., below, of this Modification in accordance with the schedules contained therein.

4. ***Paragraph 4.h. of the 2009 Agreement.*** Paragraph 4.h. of the 2009 Agreement shall be modified in its entirety and shall be replaced with the following:

4. ***Corrective Actions.***

h. Until Cabot has permanently restored all of the Affected Water Supplies in accordance with the 2009 Agreement and this Modification, Cabot shall: **upon signing this Modification,** provide and maintain temporary potable water and/or gas mitigation devices at the Kemble Water Supply in accordance with 25 Pa. Code §78.51, or as otherwise approved by the Department; and continue to provide and maintain temporary potable water and/or gas mitigation devices at all of the 13 other Affected Water Supplies, unless Cabot demonstrates to the Department's satisfaction that the owner of the Affected Water Supply refused the whole-house treatment system.

5. ***Paragraph 4.i. of the 2009 Agreement.*** Paragraph 4.i. of the 2009 Agreement shall be modified in its entirety and shall be replaced with the following:

4. ***Corrective Actions.***

i.

1) As indicated in the 2009 Agreement and this Modification, the Department has identified the following 14 Cabot Wells as having insufficient/improper casing and/or cementing and/or overpressure, and are causing and/or have the potential to cause the unpermitted discharge of natural gas into the groundwater in the Affected Area: Baker No. 1; Ely No. 4; Ely No. 5H; Ely No. 7H; Teel No. 5; Brooks No. 1H; Gesford No. 2; Gesford No. 3; Gesford No. 9; Hubbard No. 5H; Ratzell No. 1H; Ratzell No. 2H; Teel No. 7; and the R Smith No. 4 Wells (collectively the "Defective Wells).

2) **No more than 10 days from the date of this Modification and continuing each day until the Wells are fully plugged within 40 days of the date of this Modification**, Cabot shall complete **any and all** actions necessary to plug, *at a minimum*, the Gesford No. 3 Well, Gesford No. 9 Well, and Baker No. 1 Well in accordance with Section 210(a) of the Oil and Gas Act,

58 P.S. §601.210(a), and 25 Pa. Code §§78.91-78.98. Cabot shall restore each of the plugged Well Sites in accordance with Section 206 of the Oil and Gas Act, 58 P.S. §601.206.

3) **No more than 10 days from the date of this Modification and continuing each day by 40 days of the date of this Modification,** Cabot shall complete **any and all** actions necessary to bring Ely No. 4 Well into compliance with the Oil and Gas Act, the Clean Streams Law, and the Regulations.

4) **At least 5 days before** any employee or consultant hired by Cabot conducts an investigation of the Cabot Wells, the Affected Water Supplies, and/or the environment within the Affected Area, Cabot shall provide to the Department a copy of Cabot's Scope of Work or Plan for such investigation.

5) **No more than 45 days from the date of completing all of the obligations under Paragraphs 4.i.2) and 4.i.3), above,** Cabot shall submit to the Department at the address set forth in Paragraph 11 of the 2009 Agreement, a written report and any and all documentation necessary, including results of lab analyses of any samples taken and any reports of investigations done by or on behalf of Cabot within the Affected Area, to show that Cabot has completed all of the obligations under Paragraphs 4.i.2) and 4.i.3), above, and that these completed obligations have completely eliminated the unpermitted discharge of natural gas into the waters of the Commonwealth from the Defective Wells and/or any other well owned and/or operated by Cabot within the Affected Area.

6) If upon review of the report submitted in accordance with Paragraph 4.i.5), above, and review of any other applicable information, the Department determines that the unpermitted discharge of natural gas continues into the waters of the Commonwealth within the Affected Area, **within 60 days of receipt of written notice from the Department** Cabot shall plug all of the remaining Defective Wells in accordance with Section 210(a) of the Oil and Gas Act, 58 P.S. §601.210(a), and 25 Pa. Code §§78.91-78.98, or take any other remedial action that the Department directs. Cabot shall restore each of the plugged Well Sites in accordance with Section 206 of the Oil and Gas Act, 58 P.S. §601.206.

7) Nothing in this sub-Paragraph 4.i. restricts Cabot from plugging and/or taking any other remedial actions necessary to eliminate the unpermitted discharge of natural gas into the waters of the Commonwealth from the Defective Wells and/or

any other well owned and/or operated by Cabot within the Affected Area.

8) In all cases, **by November 1, 2010,** Cabot shall have completed all of its obligations under the 2009 Agreement and this Modification in accordance with the schedules contained therein and shall have completely eliminated the unpermitted discharge of natural gas into the waters of the Commonwealth from the Defective Wells and/or any other well owned and/or operated by Cabot within the Affected Area.

6. ***Paragraph 4.l. of the 2009 Agreement.*** Paragraph 4.l. of the 2009 Agreement shall be modified in its entirety and shall be replaced with the following:

4. ***Status Reports and Completion of all Corrective Actions.***

l.

1) **Beginning May 15, 2010, and continuing on the 15th day of each month thereafter**, Cabot shall submit to the Department at the address set forth in Paragraph 11 of the 2009 Agreement, a written report of the actions that it has taken in the previous month and the specific actions that it plans to take in the following month to comply with its obligations under the 2009 Agreement and this Modification.

2) In all cases, **by November 1, 2010,** Cabot shall have completed all of its obligations under the 2009 Agreement and this Modification in accordance with the schedules contained therein and shall have completely eliminated the unpermitted discharge of natural gas into the waters of the Commonwealth from the Defective Wells and/or any other well owned and/or operated by Cabot within the Affected Area.

7. ***Paragraph 4.m. of the 2009 Agreement.*** Paragraph 4.m. of the 2009 Agreement shall be modified in its entirety and shall be replaced with the following:

4. ***Corrective Actions.***

m. **Within 30 days of the date of this Modification,** Cabot shall: complete the installation of a whole-house treatment system in each of the 14 Affected Water Supplies; provide funding to compensate the owners of the Affected Water Supplies

for operation and maintenance costs for the treatment systems; and submit to the Department at the address set forth in Paragraph 11 of the 2009 Agreement, a written report and any and all documentation necessary, including results of lab analyses of samples taken, to show that the whole-house treatment system has been installed and that each Affected Water Supply, after treatment, has a concentration of dissolved methane at or below 5 milligrams per liter throughout the Affected Water Supply, and has concentrations of other contaminants that comply with 25 Pa. Code §78.51(d) for each Affected Water Supply. If Cabot demonstrates to the Department's satisfaction that an owner of an Affected Water Supply refused the whole-house treatment system, Cabot shall be deemed to have complied with this Paragraph for such Affected Water Supply.

8. ***Paragraph 7 of the 2009 Agreement.*** Paragraph 7 of the 2009 Agreement shall be modified in its entirety and shall be replaced with the following:

7. ***Stipulated Civil Penalties.***

a. If Cabot fails to comply with the provisions of the 2009 Agreement and this Modification, Cabot shall be in violation of the 2009 Agreement and this Modification and, in addition to other applicable remedies, shall pay a stipulated penalty of $5,000 per day for each violation.

b. Stipulated civil penalty payments shall be payable monthly on or before the 15th day of each succeeding month, and shall be made by corporate check or the like made payable to "Commonwealth of Pennsylvania" and sent to the Department at the address set forth in Paragraph 11 of the 2009 Agreement.

c. Any payment under this Paragraph shall neither waive Cabot's duty to meet its obligations under the 2009 Agreement and this Modification nor preclude the

Department from commencing an action to compel Cabot's compliance with the terms and conditions of the 2009 Agreement and this Modification. The payment resolves only Cabot's liability for civil penalties arising from the violation of the 2009 Agreement and this Modification for which the payment is made.

9. ***Civil Penalty Settlement for Noncompliance With the 2009 Agreement.***

a. **Upon signing this Modification,** Cabot shall pay a civil penalty of $240,000. This payment is in settlement of Cabot's failure to comply with all of its obligations under the 2009 Agreement as set forth in the Findings, above. The payment shall be made by corporate check or the like made payable to the "Commonwealth of Pennsylvania" and sent to the Department at the address set forth in Paragraph 11 of the 2009 Agreement.

b. **Beginning May 15, 2010,** and continuing on the 15th day of each month thereafter, Cabot shall pay $30,000 and shall pay $30,000 each month thereafter until the Department notifies Cabot, in writing, that the Department has determined that Cabot has complied with all of its obligations under the 2009 Agreement and this Modification. Cabot shall pay these monthly penalties in addition to the payment of the $240,000 civil penalty upon signing this Modification, and in addition to any stipulated penalties owed by Cabot pursuant to the new Stipulated Penalty Paragraph 7, as identified in Paragraph 8, above, of this Modification.

10. ***Remainder of 2009 Agreement in Force and Effect.*** Except for the modifications to Paragraphs 3, 4, and 7 of the 2009 Agreement, as expressly stated herein, the Findings and all other terms and conditions of the 2009 Agreement shall remain in full force and affect between the Parties.

IN WITNESS WHEREOF, the Parties have caused this Modification to be executed by their duly authorized representative. The undersigned representative of Cabot certifies under penalty of law, as provided by 18 Pa.C.S.A. §4904, that he is authorized to execute this Modification to the

2009 Agreement on behalf of Cabot, that Cabot consents to the entry of this Modification as a final ORDER of the Department, and that Cabot hereby knowingly waives its right to appeal this Modification and to challenge its content or validity, which rights may be available under Section 4 of the Environmental Hearing Board Act, the Act of July 13, 1988, P.L. 530, No. 1988-94, 35 P.S. §7514; the Administrative Agency Law, 2 Pa.C.S.A. §103(a) and Chapters 5A and 7A; or any other provision of law. Signature by Cabot's attorney certifies only that this Modification has been signed after consulting with counsel.

FOR CABOT OIL & GAS CORPORATION:

Dan O. Dinges
Chief Executive Officer

FOR THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION:

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