

BEFORE THE STATE OIL AND GAS BOARD OF MISSISSIPPI

RE: A PETITION OF PIONEER NATURAL
RESOURCES USA, INC. TO AMEND
THE SPECIAL FIELD RULES TO ALLOW
FOUR INCREASED DENSITY WELLS
IN THE MIDDLE COTTON VALLEY
GAS POOL IN SECTIONS 18 AND 19
TOWNSHIP 6 NORTH, RANGE 2 WEST
BOLTON FIELD, HINDS COUNTY, MS

FILED FOR RECORD

OCT 30 2006

STATE OIL AND GAS BOARD
LISA IVSHIN, SUPERVISOR

DOCKET NO.: 353-2006-77

ORDER: 564-2006

ORDER

THIS CAUSE came on for hearing on the Petition of Pioneer Natural Resources USA, Inc. requesting the Board to amend the Special Rules for the Bolton Field (the "Field") in Hinds County, Mississippi, as hereinafter set forth, and would show as follows:

I.

Petitioner is the current operator of the Mellon 18-1 No. 1 Gas Well on a unit comprising the entire Section 18, Township 6 North, Range 2 West; and is the current Petitioner in Docket No. 345-2006-77 seeking operatorship and authorization to drill the Mashburn 19-1 No. 1 Gas Well on a unit comprising the entire Section 19, Township 6 North, Range 2 West. In both instances, Pioneer will drill to a depth sufficient to test the Cotton Valley Gas Pool, including the "Middle Cotton Valley Gas Pool" as defined in the current and existing Special Field Rules for the Bolton Field, Hinds County, Mississippi.

II.

The Special Field Rules for the Bolton Field were last adopted or amended in this field in Docket No. 217-87-77, Order No. 346-87.

III.

Petitioner seeks authority to allow up to four (4) increased density wells per governmental section in the "Middle Cotton Valley Gas Pool" as currently defined, limited however to Sections 18 and 19, Township 6 North, Range 2 West. The "Middle Cotton Valley Gas Pool" is currently defined as those strata productive of gas within the intervals of 14,750 to 16,300 feet as shown in the Dual-Induction log of the Chevron U.S.A. No. 1 C. J. Mashburn et al Well located 1700 feet South of the North line and 1500 feet West of the

East line of section 19, Township 6 North, Range 2 West, Hinds County, Mississippi, and all intervals correlative to or connected with these strata.

IV.

Only three (3) wells in the Bolton Field have produced from the "Middle Cotton Valley Gas Pool." In Section 18, Township 6 North, Range 2 West, the well which previously produced from the "Middle Cotton Valley Gas Pool" was the Latex, now Pruet Production Company – Ernest Roberts Gas Well No. 6 (API # 23049201200000). In Section 19, Township 6 North, Range 2 West, the well which previously produced from the "Middle Cotton Valley Gas Pool" was the Chevron, now Pounds-C.J. Mashburn Gas Well No. 1 (API # 23049201380000). Neither well is currently operative. The only currently producing gas well in the Bolton Field is the Evangeline Energy Operating Company - Gaddis Farms 13-1 Gas Well No. 1 (API # 23049201490000), situated in Section 13, Township 6 North, Range 3 West. Utilizing established practice of volumetric calculations, Petitioner has shown that the existing Middle Cotton Valley Wells in the Bolton Field do not and have not drained 640 acres. Further, utilizing the Estimated Ultimate Reserve (EUR) for each well, the petro-physical properties determined from log analysis, reservoir pressure and temperature, and applying appropriate petroleum engineering formulas, the Board finds that the aforementioned gas wells in the field are only draining 160 acres versus Field Wide Rules of 640 acres.

V.

The above wells and other wells in the Bolton Field have proven that the "Middle Cotton Valley Gas Pool" only drains a limited area and increased density wells are necessary to recover additional gas which would not be recovered by the existing wells. Therefore, for engineering reasons, Petitioner has requested an amendment to the Special Field Rules to allow up to four (4) increased density wells for the "Middle Cotton Valley Gas Pool" as currently defined. The increased density wells are the best possible manner to produce additional gas to protect the co-equal and correlative rights of all owners in the common source or supply.

VI.

The previous wells drilled and produced from the "Middle Cotton Valley Gas Pool" generally exhibit low permeability. The permeability is usually less than 1 md and the wells appear to drain from a small area due to this extreme lack of permeability. Furthermore,

the porosity zones appear to come and go throughout the field and are, in many cases, are not inter-connected so that drainage areas are small.

VII.

Amendment of the Special Field Rules as requested by Petitioner will promote conservation, protect the coequal and correlative rights of all owners and interests, avoid the drilling of unnecessary wells, and permit oil and gas to be produced which would not otherwise be recoverable.

IT IS, THEREFORE, ORDERED AND ADJUDGED that the Special Rules for the Bolton Field are hereby amended as set forth in Exhibit "A" attached hereto and incorporated herein by reference.

ORDERED AND ADJUDGED this 30th day of October, 2006.

MISSISSIPPI STATE OIL & GAS BOARD

By:


Chairman

Prepared by:

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ATTORNEYS FOR PETITIONER

EXHIBIT "A"

SPECIAL FIELD RULES BOLTON FIELD HINDS COUNTY, MISSISSIPPI

A. Field Limits:

The Bolton Field, as used herein, covers those certain lands in Township 6 North, Range 2 West, and Township 6 North, Range 3 West, Hinds County, Mississippi, that are shown on the official map of Bolton Field, Hinds County, Mississippi, maintained and published by the State Oil & Gas Board of the State of Mississippi, and including all productive extensions thereof which are underlain by one or more of the following pools:

B. Pool Definitions:

1. The Paluxy Pool as used herein shall be construed to mean those strata productive of oil in the Paluxy Formation occurring between the depth of 8875 feet and 10,053 feet in Larco Drilling Company C.J. Mashburn #1 located in the center of the SW/4 of NE/4, Section 19, Township 6 North Range 2 West, Hinds County, Mississippi, or correlative of these strata in other wells to said interval (originally defined in Order No. 86-55).
2. The East Rodessa Pool as used herein shall be construed to mean those strata in the Lower Glen Rose Formation productive of oil occurring between the base of the Ferry Lake anhydrite at a depth of 10,416 feet and the top of the Pine Island shale at 11,015 feet, as indicated by the electric log of the Weston Drilling Company (Larco Drilling Company) – No. 2 Roberts Well, located in the center of the NE/4 of SW/4 of Section 18, Township 6 North, Range 2 West, Hinds County, Mississippi, and all strata correlative thereto productive of oil which are encountered on the high and East side of the main West dipping fault (originally defined in Order No. 86-55, and amended to the above in Order No. 216-57, and further amended by Order No. 94-58).
3. The Sligo Pool as used herein shall be construed to mean those strata in the Lower Glen Rose Formation productive of oil occurring between base of the Pine Island Shale at a depth of 11,400 feet and approximate top of the Hosston Formation to 11,613 feet as indicated by the electrical log of the Jett Drilling Co., Inc., et al – Roberts No. 2 Well, and all strata correlative thereto productive of oil (originally defined and added to Special Field Rules for Bolton Field, Hinds County, Mississippi, by Order No. 216-57).

4. The Mooringsport Pool, as used herein shall be construed to mean those strata productive of oil in Mooringsport formation between the base of the Paluxy formation at 10,064 feet and the top of the Ferry Lake Anhydrite at 10,460 feet in the Weston Drilling Company – Gaddis Farms No. 3, located 421 feet North and 372 feet East of the Southwest corner of the Southwest Quarter of the Northeast Quarter of Section 13, Township 6 North, Range 3 West, Hinds County, Mississippi, and all other oil productive strata correlative to this interval in other wells (originally defined in Order No. 253-56, and also in Order No. 103-57).
5. The Hosston Pool as used herein shall be construed to mean those strata in the Hosston Formation productive of oil occurring between the base of the Sligo Formation at a depth of 11,225 feet and 12,170 feet as indicated by the electrical log of the Weston Drilling Company Roberts No. 3-A Well located 330 feet North and 330 feet East of the Southwest corner of the NW/4 of SW/4 of Section 18, Township 6 North, Range 2 West, Hinds County, Mississippi, and all strata correlative thereto productive of oil (originally defined in Order No. 94-58).
6. The West Rodessa Pool as used herein shall be construed to mean those strata in the Lower Glen Rose Formation productive of oil occurring between the base of the Ferry Lake anhydrite at a depth of 10,598 feet and the top of the Pine Island shale at 11,250 feet, as indicated by the electric log of the Jett Drilling Co., Inc. et al – Roberts No. 2 Well, located 330 feet South of the North line and 330 feet West of the East line of the NE/4 of NE/4 of Section 24, Township 6 North, Range 3 West, Hinds County, Mississippi, and all strata correlative thereto productive of oil which are encountered on the low and West side of the main West dipping fault (originally defined in Order No. 94-58, erroneously shown as “E” therein).
7. The Middle Cotton Valley Gas Pool as used herein shall be construed to mean those strata productive of gas within the intervals of 14,750 to 16,300 feet as shown in the Dual-Induction log of the Chevron U.S.A., Inc. No. 1 C.J. Mashburn et al Well located 1700 feet South of North line and 1500 feet West of East line of Section 19 Township 6 North, Range 2 West, Hinds County, Mississippi, and all intervals correlative to or connected with these strata.

C. Rules – As to Oil Wells:

1. All drilling units for all future oil wells shall be drilled in accordance with Statewide Rule 7, or any amendment thereto at the time the permit to so drill is requested.

2. All locations for all oil wells heretofore drilled into any pool defined in B.1 through B.6, either at a regular or exception location, are hereby approved.

D. Rules – As to Gas Wells:

1. Except as hereinafter proved, all drilling units for all future gas wells shall be drilled in accordance with Statewide Rule 8, or any amendment thereto at the time the permit to so drill is requested.
2. All locations for all gas wells heretofore drilled into the pool defined as B.7, whether at a regular or exception location, are hereby approved.
3. Every Well completed as a Gas Well in the Middle Cotton Valley Gas Pool in Sections 18 and 19, Township 6 North, Range 2 West:
 - a. Shall be located on a drilling unit consisting of 640 contiguous surface acres, or a governmental section containing not less than 600 acres, not more or less than 680 acres, upon which no other drilling or producible well is located;
 - b. The well shall be located at least 1,000 feet from every other drilling or producible well completed in the same pool located in conformity with this rule;
 - c. The well shall be located not less than 1,500 feet from every exterior boundary of the unit; and
 - d. Each 640 acres gas unit may contain up to four (4) producing wells from the Middle Cotton Valley Gas Pool.

E. Applicability of Statewide Rules:

1. All rules and regulations of the State Oil and Gas Board of the State of Mississippi not specifically covered in the foregoing rules are hereby adopted and shall apply to said field.
2. The Board expressly reserves the right, after notice and hearing, to alter, grant exceptions, or repeal any or all of the foregoing rules and regulations as they apply to the above and foregoing mentioned pools.