

DEC - 3 1997

STATE OIL AND GAS BOARD  
Walter Boone, Supervisor

**BEFORE THE STATE OIL AND GAS BOARD OF MISSISSIPPI**

**RE: PETITION OF DENBURY MANAGEMENT, INC.  
TO ESTABLISH SPECIAL FIELD RULES FOR  
EAST APOLLO FIELD, PERRY COUNTY, MIS-  
SISSIPPI**

**DOCKET NO. 362-97-818**

**ORDER NO. 509-97**

**ORDER**

This day this cause came on to be heard on the Petition of Denbury Management, Inc. [hereinafter referred to at times as "Petitioner"] requesting the State Oil and Gas Board of Mississippi to enter an order adopting and establishing Special Field Rules for East Apollo Field so as to define the Eutaw Oil Pool, to establish spacing and production allocation requirements applicable to said pool, to authorize surface commingling of production and automatic custody transfer systems, and for related relief. This Board, having considered the Petition and the evidence submitted in support thereof, and being fully advised in the premises, is of the opinion and finds that the relief requested by Denbury Management, Inc. should be, and the same is hereby, granted. This Board further finds and determines as follows, to-wit:

1.

Due, proper and legal notice of the meeting of this Board for the purpose of considering and hearing the Petition filed herein has been given in the manner and time required by law and the rules and regulations of this Board. Due, legal and sufficient proofs of publication of such notice and proof of notice by personal service are on file with this Board. Denbury Management, Inc. has made a reasonably diligent effort to give the personal notice required by the rules and regulations of this Board. This Board has full jurisdiction of the parties and the subject matter hereof.

2.

A public hearing was held by this Board in Suite E, 500 Greymont Avenue, Jackson, Mississippi, commencing on November 19, 1997, at 9:30 o'clock a.m., at which time and place all persons who desired to be heard on said matter were heard and all testimony and the evidence were duly considered by this Board.

3.

Denbury Management, Inc. is a Texas corporation, whose principal place of business is 17304 Preston Road, Suite 200, Dallas, Texas 75252. Petitioner is duly authorized and qualified to do business in the State of Mississippi. Petitioner is the operator of all wells drilled and permitted in East Apollo Field.

4.

East Apollo Field is a newly discovered oil field on the eastern flank of the Richton Salt Dome, a widely recognized geological structure in Perry County, Mississippi. This Board has not heretofore adopted any Special Field Rules for East Apollo Field.

5.

In order to fully and completely develop the Eutaw Oil Pool in East Apollo Field, it is necessary that Special Field Rules be established and adopted for East Apollo Field so as to define the Eutaw Oil Pool and to establish spacing and production allocation requirements applicable to said pool, and to authorize surface commingling of production and automatic custody transfer systems.

6.

The geographical area covered by East Apollo Field is believed to include all, or part of, Sections 25, 26, 35 and 36 of Township 5 North, Range 10 West, and Sections 1 and 2 of Township 4 North, Range 10 West, all in Perry County, Mississippi.

7.

The Eutaw Oil Pool is a separate and distinct oil bearing sand. The crude oil produced from the Eutaw Oil Pool is very heavy crude, with an extremely low gravity. Because of the characteristics of the crude oil and the formation, the drainage area of any well drilled in the pool is very limited. The most efficient method of producing the Eutaw Oil Pool in East Apollo Field is the drilling of multiple horizontal and/or vertical wells on each unit. In order to fully develop the Eutaw Oil Pool, it is necessary that 240 acre spacing for the Eutaw Oil Pool be adopted in the field.

8.

In order to accommodate the drilling of horizontal wells in East Apollo Field, it is necessary that the surface locations of horizontal and/or directionally deviated wells be authorized to be located outside of the boundaries of the unit.

9.

As a result of the high viscosity of the crude oil produced from the Eutaw Oil Pool in this field, heaters and treaters are necessary to maintain the temperature of the crude oil above pour point. Because of the expense involved in maintaining separate crude oil storage tanks, heaters and treaters, the operator of wells in East Apollo Field should be authorized to commingle, in common heaters, treaters and storage tanks, the crude oil produced from wells in the same unit. Furthermore, automatic custody transfer systems should be authorized by the Special Field Rules.

10.

The adoption of the Special Field Rules for East Apollo Field as proposed by Petitioner will facilitate the more efficient and economical operation of the Eutaw Oil Pool and will ultimately result in the recovery of more oil and/or other hydrocarbon reserves from said field. The adoption of the proposed Special Field Rules for East Apollo Field will promote the conservation of oil and gas of East Apollo Field and the State of Mississippi by preventing waste, avoiding the drilling of unnecessary wells, safeguarding, protecting and enforcing the coequal and correlative rights of all owners of hydrocarbons in the field to the extent that each such owner may recover his fair and equitable share of recoverable hydrocarbons without unnecessary expense. The adoption of the proposed Special Field Rules for East Apollo Field will foster, encourage and promote the full development of the field.

IT IS THEREFORE ORDERED AND ADJUDGED by the State Oil and Gas Board of Mississippi that the relief requested by Denbury Management, Inc. in the Petition filed in this docket should be, and the same is hereby, granted and it is further ordered and adjudged that Special Field Rules for East Apollo Field be and are hereby adopted and shall read as follows:

**SPECIAL FIELD RULES**  
**EAST APOLLO FIELD**  
**PERRY COUNTY, MISSISSIPPI**

A. FIELD AREA:

East Apollo Field, as used herein, is defined as that geographical area consisting of all that portion of Sections 25, 26, 35 and 36 of Township 5 North, Range 10 West, and Sections 1 and 2 of Township 4 North, Range 10 West, all in Perry County, Mississippi, underlain by the Eutaw Oil Pool as herein defined and all extensions thereof.

B. POOL DEFINITION:

The **Eutaw Oil Pool**, as used herein, shall be construed to mean those strata of the Cretaceous age formations productive of oil which can be correlated with the strata indicated on the dual induction log of the Fina Oil and Chemical Company — Ernest C. Sellers 36-4 No. 1 Well (located 380 feet from the West line and 690 feet from the North line of Section 36 of Township 5 North, Range 10 West, Perry County, Mississippi) between the depths of 5520 feet and 7020 feet (measured depths) and all sands correlative to and in communication with said strata.

C. RULES:

RULE 1 — Spacing of Wells

The following spacing rules apply to wells drilled to or completed in the Eutaw Oil Pool as defined herein:

- (a) Every well shall be located on a unit consisting of 240 contiguous surface acres, or six (6) contiguous governmental quarter-quarter sections containing not less than 220 acres nor more than 260 acres. The word "contiguous" as used herein shall mean bordering each other at more than one point.

- (b) All units must be completely encompassed by the perimeter of a rectangle 4250 feet by 3075 feet; provided, however, no unit shall be permitted which will create island acreage.
- (c) Each unit may have up to six (6) separate wells completed in or producing from said pool, either horizontal, vertical or a combination of both. For the purposes of this subparagraph, multiple horizontal or lateral boreholes drilled from an initial pilot borehole shall be considered as a single well.
- (d) Wells may be drilled utilizing directional or horizontal drilling techniques, regardless of whether the surface location of such wells is within or outside the boundaries of the unit; provided, however, the entry point in the horizontal drainhole, the terminus point in the horizontal drainhole and all points in between shall be at least 100 feet from every exterior boundary of the unit.
- (e) The surface location of vertical wells shall be at least 100 feet from every exterior boundary of the unit.
- (f) The surface location of each well shall be at least twenty-five (25) feet from the surface location of every other well completed in or producing from said pool on the same unit.
- (g) Multiple horizontal or lateral boreholes may be drilled extending from the initial pilot borehole drilled for each well. A separate application for permit to drill, survey plat and drilling permit fee shall be filed with the Board for each subsequent horizontal or lateral borehole drilled after the original completion of the well.
- (h) With respect to every directional or horizontal well planned to be drilled in the Eutaw Oil Pool, the application for permit to drill shall be accompanied by a survey plat showing the surface location, the anticipated bottomhole location of the pilot borehole, the anticipated location of the entry point of the horizontal drainhole into the Eutaw Oil Pool, the anticipated terminus point in the horizontal drainhole and the boundaries of the unit.

- (i) A directional survey shall be run and submitted to the Board in accordance with Rule 14 of the Statewide Rules and Regulations on all of the following types of wells: (i) wells drilled utilizing directional or horizontal drilling techniques, (ii) wells proposed to be drilled with the surface location or any portion of the wellbore at a location less than 330 feet from any exterior boundary of the unit, and (iii) wells with a surface location outside the boundaries of the unit.
- (j) The Supervisor of this Board is authorized to issue administrative permits for the drilling and completion of wells in the Eutaw Oil Pool utilizing directional or horizontal drilling techniques, without further notice or hearing, if the application for permit to drill meets the conditions set forth above in these spacing rules.

RULE 2 — Allowable

Upon the completion of a well in the Eutaw Oil Pool, the operator thereof shall be allowed to test the production for said well for a period of time not to exceed one year from the date of initial production from said well in order to determine the maximum efficient rate of production. During this test period, the maximum efficient daily rate of production from each newly completed well in the Eutaw Oil Pool shall be set at a temporary rate of 1500 barrels of oil per day in order to allow the proper testing of each well. Prior to the expiration of the one year test period, the operator of such well shall petition the Board to establish a permanent maximum efficient rate of production for the well.

RULE 3 — Surface Storage, Measurement and Transfer Systems

(1) The operator of wells completed in the Eutaw Oil Pool shall maintain such separators, stock tanks, metering devices, connections and storage facilities as it deems necessary to accurately measure the total production from the wells on each unit. Separate measurement or storage for the Eutaw Oil Pool wells within a single unit shall not be required. Where metering devices are used, the production from separate units may be commingled in a common storage system. If, upon a sale therefrom, a variance exists between the measurement from the common storage system, then such variance shall be

allocated back to each of the units producing into the common storage system proportionately to the production measured from each unit.

(2) Automatic custody transfer systems which automatically test, sample, measure and transfer the production from the operator to the purchaser are hereby authorized for each such Eutaw Oil Pool unit. Such systems will be equipped with a sampling device which will take a representative sample of the total production passing through the system in order that the specific gravity and basic sediment and water content can be determined. Each custody transfer system will be equipped with a volume displacement type metering device which registers the volume of oil passed through it in barrels or multiples thereof.

**RULE 4 — Amendment of Special Field Rules**

The Board expressly reserves the right, after notice and hearing, to alter, amend or repeal any and all of the above rules and regulations, or to grant exceptions to all or any part thereof.

**RULE 5 — Applicability of Statewide Rules**

All rules and regulations contained in Statewide Order No. 201-51, and all amendments thereto, are hereby adopted and shall apply to East Apollo Field to the extent not inconsistent with the above rules.

SO ORDERED AND ADJUDGED on this the 28<sup>th</sup> day of November, 1997.

STATE OIL AND GAS BOARD OF MISSISSIPPI

By: Joseph D. Zuccaro  
Chairman

Prepared and submitted by:  
James M. Nix  
JONES AND NIX  
Post Office Box 55601  
Jackson, Mississippi 39296-5601  
Phone (601) 948-6800