

IN THE STATE OIL AND GAS BOARD OF MISSISSIPPI

FILED FOR RECORD

MAR 12 1990

RE: PETITION OF AMOCO PRODUCTION COMPANY
FOR ESTABLISHMENT OF SPECIAL FIELD RULES FOR THE
RICHARDSON CREEK FIELD, FRANKLIN COUNTY, MISSISSIPPI.

DOCKET NO. 401-89-172
ORDER NO. 49.90

O R D E R

THIS DAY this cause came on for hearing before the State Oil and Gas Board on the Petition of Amoco Production Company as Unit Operator of the RC 1ST WX FU and RC 4600 WX FU Units to establish Special Field Rules for the Richardson Creek Field, Franklin County, Mississippi, such hearing being called for such purpose; and

The Board finding that due, proper and legal notice of the meeting of the Board for the purpose of considering and taking action with respect to such matter was given in the manner and way provided by law and the rules and regulations of the Board, and that due, legal and sufficient proofs of publication are on file with the Board, and that the Board has full jurisdiction of the subject matter to hear and determine the same; and

WHEREAS, pursuant to said notice given, public hearing was held by said Board in Suite E, 500 Greymont Avenue, Jackson, Mississippi, commencing on February 21, 1990, at which hearing all persons present who desired to be heard on said matter were heard and all testimony and evidence were duly considered by those present at said meeting; and

WHEREAS, the Board has fully considered said matter and the evidence and recommendations made at said hearing and finds as follows:

1. In Docket No. 397-89-172, this Board has approved the plan of unitization composed of a Unit Agreement and Unit Operating Agreement, creating the RC 1ST WX FU Unit. In Docket No. 398-89-172, this Board has approved the plan of unitization composed of a Unit Agreement and Unit Operating Agreement, creating the RC 4600 WX FU Unit. The establishment of the Field Rules to describe the field, designate the pools and authorize infield drilling is necessary for the operation of the said unit.

2. The production history of the wells in this field shows that the producing pools in this field defined as the First Wilcox Sand Oil Pool and the 4600 Foot Wilcox Sand Oil Pool are oil pools productive of oil.

3. The proposed enhanced recovery project involves the application (in accordance with sound engineering principles) of infield drilling operations which can reasonably be expected to result in more than an insignificant increase in the amount of crude oil which will ultimately be recovered from the said oil pools. The portion of the property to be affected by the project is adequately delineated.

Amoco Production Company should be permitted to drill additional infield wells for production. The Field Rules should authorize such a program. The infield drilling contemplated by the operator and the proposed appropriate allocation of production will present waste and will protest the coequal and correlative rights of all interested parties.

IT IS, THEREFORE, ORDERED AND ADJUDGED that the Special Field Rules for the Richardson Creek Field in Franklin County, Mississippi, be hereby established to read as follows:

SPECIAL FIELD RULES

FOR THE RICHARDSON CREEK FIELD,

FRANKLIN COUNTY, MISSISSIPPI

A. The Richardson Creek Field, as used herein, is the area in Sections 8 and 9, Township 5 North, Range 2 East, Franklin County, Mississippi, and including all productive extensions thereof, underlain by the following described pools, to-wit:

(1) The First Wilcox Sand Oil Pool, as used herein, shall be construed to mean those strata of the Wilcox Formation productive of oil from the depth of 4501 feet to 4608 feet in the Amoco Production Company, U.S.A. 1-8 Well located 2234.13 feet from the North line and 167.29 feet from the West line of Section 9, Township 5 North, Range 2 East, Franklin County, Mississippi, and including those strata productive of oil which can be correlated therewith.

(2) The 4600 Foot Wilcox Sand Oil Pool, as used herein, shall be construed to mean those strata of the Wilcox Formation productive of oil from the depth

of 4720 feet to 4850 feet in the Amoco Production Company, U.S.A. 1-8 Well located 2234.13 feet from the North line and 167.29 feet from the West line of Section 9, Township 5 North, Range 2 East, Franklin County, Mississippi, and including those strata productive of oil which can be correlated therewith.

B. The RC 1ST WX FU Unit as used herein is the following described area:

The E/2 of the NE/4 and the NE/4 of the NE/4 of the SE/4 of Section 8, the S/2 of the NW/4, the S/2 of the N/2 of the NW/4 and the N/2 of the N/2 of the SW/4 of Section 9, Township 5 North, Range 2 East, Franklin County, Mississippi; underlain by the First Wilcox Sand Oil Pool in the Richardson Creek Field and all productive extensions thereof.

C. The RC 4600 WX FU Unit as used herein is the following described area:

The E/2 of the NE/4 and the NE/4 of the SE/4 of Section 8, the W/2 of the NW/4, the SE/4 of the NW/4, the SW/4 of the NE/4 of the NW/4, the S/2 of the SE/4 of the NE/4 of the NW/4 and the N/2 of the SW/4 of Section 9, Township 5 North, Range 2 East, Franklin County, Mississippi; underlain by the 4600 Foot Wilcox Sand Oil Pool in the Richardson Creek Field and all productive extensions thereof.

D. The characteristics of the First Wilcox Sand Oil Pool and the 4600 Foot Wilcox Sand Oil Pool in said field are such that wells located in conformance with the hereinafter prescribed spacing rules will efficiently drain and produce the recoverable oil from said pool without avoidable waste.

RULE 1 - SPACING OF WELLS:

A. Every well drilled for production from the First Wilcox Oil Pool above defined and located outside of the RC 1ST WX FU Unit and every well drilled for production from the 4600 Foot Wilcox Sand Oil Pool above defined and located outside of the RC 4600 1ST WX FU Unit:

(1) Shall be located on a drilling unit consisting of 40 contiguous surface acres or a governmental quarter-quarter section containing not less than 36 acres of more than 44 acres upon which no other drilling or producible well is located;

(2) Any oil drilling unit formed under Section A (1) of this rule must be completely encompassed by the perimeter of a rectangle 1810 feet by 1445 feet, provided, however, no unit shall be permitted which will create island acreage.

(3) The well shall be located at least 660 feet from every other drilling well or well completed in or producing from the same pool located in conformity with this rule; and

(4) The well shall be located not less than 330 feet from every exterior boundary of the unit.

B. (1) A fieldwide unit is established for the First Wilcox Sand Oil Pool as consisting of the entire RC 1ST WX FU Unit Area hereinabove described.

(2) A drilling unit located within the RC 1ST WX FU Unit Area heretofore or hereafter established under the provisions of the Statewide Rules for a well producing from the First Wilcox Sand Oil Pool shall be considered as producing from the Unit Area in accordance with Order No. 45-90 of this Board entered in Docket No. 397-89-172.

(3) The location of wells upon the RC 1ST WX FU Unit for production or injection from or unto the First Wilcox Sand Oil Pool shall be governed by standards of geology and petroleum engineering designed to promote the greatest ultimate recovery of oil contained in the First Wilcox Sand Oil Pool within the RC 1ST WX FU Unit. Any well hereafter drilled or produced from within said Unit shall not have any distance limitations either with respect to the exterior boundary of the said Unit or any other well drilled or produced from within said Unit.

C. (1) A fieldwide Unit is established for the 4600 Foot Wilcox Sand Oil Pool as consisting of the entire RC 4600 WX FU Unit Area hereinabove described.

(2) A drilling unit located within the RC 4600 WX FU Area heretofore or hereafter established under the provisions of the Statewide Rules for a well producing from the 4600 Foot Wilcox Sand Oil Pool shall be considered as producing from the Unit Area in accordance with Order No. 46-90 of this Board entered in Docket No. 398-89-172.

(3) The location of the wells upon the RC 4600 WX FU Unit for production or injection from or into the 4600 Foot Wilcox Sand Oil Pool shall be governed by standards of geology and petroleum engineering designed to promote the greatest ultimate recovery of oil contained in the 4600 Foot Wilcox Sand Oil Pool within the RC 4600 WX FU Unit. Any well hereafter drilled or produced from within said Unit shall not have any distance limitations either with respect to the boundary of the said Unit or any other well drilled or produced from within said Unit.

RULE 2 - MEASUREMENT OF PRODUCTION

The operator of each producing property, whether it be a lease, drilling unit, or fieldwide unit, shall maintain proper separation equipment and stock tanks and/or metering devices and such connections thereto as are necessary to measure the total production from such property. Where metering devices are used, the production may be commingled in a common storage system and if, upon a sale therefrom a variance exists between the measurement from the common storage system and the total measurement of the production of all the properties commingled in such common storage system, then such variance shall be allocated back to each of the properties producing into the common storage system proportionately to the production measured from each property.

RULE 3 - EQUIPMENT FOR TESTS

The operator of each producing property, whether it be a lease, drilling unit, or fieldwide unit, on which there are two or more producing wells shall maintain proper separation equipment and stock tanks and/or metering devices and such connections thereto as will permit the adequate testing of each individual well under usual operating conditions without the necessity of closing in any other well. Such separation equipment, stock tanks and/or metering devices and connections thereto shall be subject to approval by the Supervisor.

RULE 4 - USE OF METERS

A. The use of meters for testing and for measurement of production from a property, whether it be a lease, drilling unit, or fieldwide unit, shall be subject to and in accordance with the following provisions:

(1) Metering devices shall be of the positive displacement or positive volume type which register the volume of oil passed through it in barrels or multiples thereof.

(2) All meters shall be downstream of the necessary separating or treating vessels. All meters shall be designed and installed in conformance with recognized metering practices and acceptable to the Oil and Gas Board.

(3) No meter used for oil production measurement shall be directly or indirectly bypassed in such manner as to permit oil from separate leases to pass into common storage without first being measured by said meter including wells on test.

(4) All meters and equipment affecting meter accuracy shall be kept in good working order. Each meter shall be calibrated periodically by means of a calibrated tank, a calibrated meter prover or a master meter. Any deviations found shall be corrected by use of a proper meter factor.

RULE 5 - AUTOMATIC CUSTODY TRANSFER SYSTEMS AUTHORIZED

Automatic custody systems which automatically test, sample, measure and transfer the production from the operator to the transporter are hereby authorized for the Richardson Creek Field. Such systems may be used to transfer production from individual properties, whether it be a lease, drilling unit, or fieldwide unit, or from common storage facilities as authorized in Rule 2 above. In the event the transfer is from such a common storage facility, the allocation of production to the leases being produced into such common storage system will be on the basis of the relationship of the measured production transferred by the automatic custody transfer system. The automatic custody transfer system 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 the basis sediment and water content can be determined. The automatic custody transfer system will be equipped with metering devices of the positive displacement or positive volume type which register the volume of oil passed through it in barrels or multiples thereof. In addition to meeting all of the requirements set out in Rule 4 above which deals with the use of meters, said automatic custody transfer metering device will be compensated for temperature, will be so equipped as to provide an accounting of the total oil transferred by such system and will have an accuracy standard equivalent to the accuracy obtained in measurements made in calibrated prover tanks.

RULE 6 - INJECTION AND RECYCLING OF GAS AUTHORIZED

A. The Unit Operator of the RC 1ST WX FU Unit and the RC 4600 WX FU Unit is hereby authorized to conduct pressure maintenance and recycling operations in the First Wilcox Sand Oil Pool and the 4600 Foot Wilcox Sand Oil Pool by the injection of water or gas and recycling of gas, including CO₂ and nitrogen. Said Unit operator may use existing wells located in said Unit Areas for injection purposes.

B. A permit to drill each new well either as a producer or injection well shall be issued upon the filing of Form 2 in accordance with Statewide Rule 4. The completion or recompletion of wells for production or injection shall be reported on Form 3.

RULE 7 - ALLOCATION OF PRODUCTION

The allowable of the First Wilcox Sand Oil Pool and the 4600 Foot Wilcox Sand Oil Pool shall be established by this Board. The allowable production of the fieldwide units may be produced by any well or wells on each said unit provided, however, that no well shall be operated in such a manner as to cause waste as defined by the laws of Mississippi.

RULE 8 - DEVIATION OF HOLE AND DIRECTIONAL SURVEY

A. Horizontal wells are defined as high angle directional wells which result in a wellbore with 100 to 3000 feet of lateral penetration. Directional wells are wells which are deviated from vertical but do not otherwise satisfy the conditions for a horizontal well.

B. Each operator shall file on Form No. 3 a record of all deviation tests taken.

C. No horizontal or directional well shall cross unit lines unless permit is obtained from the Board after notice and hearing.

D. Wells can be horizontally or directionally drilled and completed in either the RC 4600 WX FU Unit or the RC 1ST WX FU Unit without notice and public hearing. Any well drilled and completed as a horizontal or directional well must satisfy all spacing requirements as discussed in Rule 1. In determining whether a particular well completion has satisfied the spacing requirements of Rule 1 with respect to another well completion or unit boundary, the closest point

of the sand in that particular wellbore as defined in Sections A (1) and A (2) to the offset well or unit boundary should be used.

E. The condition and requirements of this rule do not apply to any horizontal or directional well drilled outside of the RC 4600 WX FU Unit or the RC 1ST WX FU Unit. The appropriate Statewide rule would apply.

F. When a well is drilled as a horizontal or directional well, or directionally deviated from its normal course for any reason, a complete angular deviation and directional survey of the finished hole shall be made at the expense of the operator and a certified copy of such survey shall be filed with the Board within thirty (30) days.

G. The Board shall have the right to make or to require any operator to make a directional survey of any hole at such operator's expense. The Board shall also have the right to require an operator to make a directional survey of any hole at the request of an offset operator, if, in the Board's opinion, such is necessary, but at the expense and risk of said offset operator unless it is found that such well is completed at a point outside the operator's drilling unit.

RULE 9 - APPLICABILITY OF STATEWIDE RULES

A. All rules and regulations contained in Statewide Order NO. 201-51, and any amendments thereto, not specifically covered in the foregoing Special Field Rules, are hereby adopted and shall apply to said Unit.

B. These rules and regulations shall become effective as of the effective date of unitization as provided by the Oil and Gas Board in Order No. 45-90, Docket No. 397-89-172, and in Order No.

46-90, Docket No. 398-89-172.

C. The Board expressly reserves the right after notice and hearing to alter, amend or repeal, any and all of the foregoing rules and regulations.

ORDERED AND ADJUDGED this the 22nd day of February, 1990.

MISSISSIPPI STATE OIL AND GAS BOARD

By: J. B. Hayes McShes
CHAIRMAN