

BEFORE THE STATE OIL AND GAS BOARD OF ALABAMA

PURSUANT TO A DECISION RENDERED
DURING A REGULAR SESSION OF THE
STATE OIL AND GAS BOARD OF ALABAMA
ON JANUARY 31, 1990, THE FOLLOWING
ORDER IS HEREBY PROMULGATED:

IN RE: ORDER NO. 90-4

DOCKET NO. 1-30-901A

This cause came on for hearing before Marvin Rogers, General Counsel for the Board, acting as hearing officer duly appointed by the State Oil and Gas Board of Alabama, pursuant to Rule 400-1-14 of the State Oil and Gas Board of Alabama Administrative Code. on the petition of Amoco Production Company, a foreign corporation, authorized to do and doing business in the State of Alabama, requesting the State Oil and Gas Board to enter an order amending Rule 2 of the Special Field Rules for the Oak Grove Coal Degasification Field, Jefferson and Tuscaloosa Counties, Alabama. The State Oil and Gas Board, after receiving and reviewing the report of the hearing officer and considering the evidence finds that due and proper notice of the hearing of said cause has been given in the manner and form and for the time required by law and the rules and regulations of this Board, and that proofs of publication of notice are on file with the Board, and that the Board has full jurisdiction of this cause, and the Board being fully advised in the premises finds:

FINDINGS OF FACT

I.

That Petitioner, in association with Taurus Exploration, Inc., is engaged in developing coal degasification wells in the Oak Grove Coal Degasification Field, and plans for developing said Field including drilling wells in an area outside the present field limits in the Pottsville Coal Interval, and in order to conduct proper and orderly development, the field limits for said Field should be amended so as to include the additional lands underlain by said Pottsville Coal Interval and subject to development; and

II.

That Rule 2 of the Special Field Rules for the Oak Grove Coal Degasification Field should be amended to add the following described parcels, to-wit:

W/2 of Section 13, E/2 of Section 14, S/2 SE/4 and NE/4 SE/4 of Section 22, SW/4, S/2 NW/4 and NE/4 NW/4 of Section 23, E/2, SW/4 and S/2 NW/4 of Section 27, SE/4 of Section 28 and E/2 and SW/4 of Section 33 of Township 18 South, Range 8 West;

E/2 SE/4 of Section 5, E/2 of Section 8, W/2 of Section 17, SE/4 SE/4 of Section 18 and E/2, SE/4 NW/4 and NE/4 SW/4 of Section 19 of Township 19 South, Range 8 West, said lands lying in Jefferson and Tuscaloosa Counties, Alabama, as underlain by the Pottsville Coal Interval.

III.

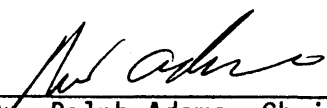
That the granting of the petition will prevent waste, protect the coequal and correlative rights, promote conservation of natural resources and allow orderly development in the Oak Grove Coal Degasification Field.

CONCLUSIONS OF LAW

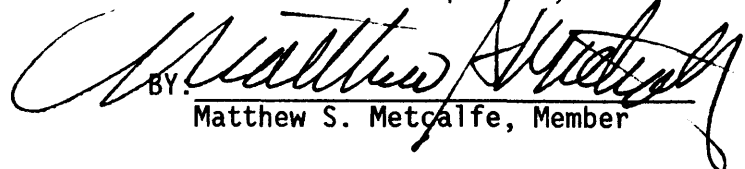
Based on the Findings of Fact set forth hereinabove, IT IS, THEREFORE, HEREBY ORDERED, ADJUDGED AND DECREED by the State Oil and Gas Board of Alabama that Rule 2 of the Special Field Rules for the Oak Grove Coal Degasification Field, Jefferson and Tuscaloosa Counties, Alabama, be and hereby is amended as set forth hereinabove, so that said Special Field Rules now read as set forth in Exhibit "A" attached hereto and made a part hereof.

ORDERED this 31st day of January, 1990.

STATE OIL AND GAS BOARD OF ALABAMA

BY: 
Dr. Ralph Adams, Chairman

BY: Absent
Gaines C. McCorquodale, Member

BY: 
Matthew S. Metcalfe, Member

ATTEST:


ERNEST A. MANCINI, Secretary

EXHIBIT "A"

SPECIAL FIELD RULES
FOR THE OAK GROVE COAL DEGASIFICATION FIELD
JEFFERSON AND TUSCALOOSA COUNTIES, ALABAMA
(As Amended January 31, 1990)

RULE 1: PREFACE.

The characteristics of the Pottsville Coal Interval in the Oak Grove Coal Degasification Field are such that a well drilled and operated according to the rules herein contained will permit the drainage of occluded gas from the coal. These Special Field Rules will facilitate such operations and promote the collection of research data concerning the efficient, economic drainage of recoverable hydrocarbons without the drilling of unnecessary wells and without the avoidable waste of coal or gas.

These Special Field Rules recognize that coal which is degasified for mining purposes is itself a valuable resource of Alabama and that the Operator intends to drill pursuant to these Special Field Rules with an express purpose of being able to recover more efficiently the coal in those seams or portions thereof that are suitable for mining.

Special provisions are incorporated into these rules for an underground horizontal borehole degasification program. Unlike the vertical degasification procedures, the horizontal borehole degasification program is an integral part of the underground mining operations in the Oak Grove Coal Degasification Field and the mining operations directly control the location and implementation of the horizontal borehole degasification program. The special provisions contained in these Special Field Rules are designed to enhance development of the horizontal borehole program that, in turn, will enhance the mineability of underground coal seams. Specific rules are included herein for the proper allocation of working interest and royalty so as to protect the correlative rights of all owners.

RULE 2: AREA LIMITS OF SPECIAL FIELD.

The Oak Grove Coal Degasification Field is defined for purposes of these Special Field Rules to be that area in Jefferson and Tuscaloosa Counties, Alabama, containing the Pottsville Coal Interval comprised of the following lands:

In Jefferson County:

- (a) Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34 and 35 of Township 18 South, Range 5 West;
- (b) Section 6, 7, 18 and 19 of Township 19 South, Range 5 West;
- (c) Sections 31, 32, 33, 34, 35 and 36, Township 17 South, Range 6 West;
- (d) Section 36, Township 17 South, Range 7 West;
- (e) Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 and 36 of Township 18 South, Range 6 West;
- (f) Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 33 and 34, N/2 of Section 30, and N/2 of Section 32 of Township 19 South, Range 6 West;
- (g) Sections 1, 2, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35 and 36 and E/2 of Section 3, S/2 of Section 17 and E/2 and E/2 W/2 of Section 30 of Township 18 South, Range 7 West;
- (h) Sections 1, 2, 11, 12 and 13 and N/2 and E/2 SE/4 of Section 3 of Township 19 South, Range 7 West;
- (i) Sections 24 and E/2 of Section 13 of Township 18 South, Range 8 West;
- (j) Sections 2, 3, 4, 9, 10 of Township 18 South, Range 4 West;
- (k) South half of Section 36 of Township 17 South, Range 5 West;
- (l) Section 25 of Township 16 South, Range 5 West;
- (m) Sections 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 and 36 of Township 16 South, Range 4 West;
- (n) Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 and 36 of Township 17 South, Range 4 West; and
- (o) Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21 and 30 of Township 17 South, Range 3 West.

In Tuscaloosa County:

- (a) Section 31, S/2 of Section 30, and S/2 of Section 32 of Township 19 South, Range 6 West;
- (b) Sections 31 and 32 and W/2 W/2 of Section 30 of Township 18 South, Range 7 West;
- (c) Sections 4, 5, 6, 7, 8, 9, 10, 14, 16, 17 and 18 and SW/4 and W/2 SE/4 of Section 3 of Township 19 South, Range 7 West;
- (d) Sections 25, 26, 34, 35 and 36, S/2 SE/4 and NE/4 SE/4 of Section 22, E/2, SW/4, S/2 NW/4, and NE/4 NW/4 of Section 23, E/2, SW/4 and S/2 NW/4 of Section 27, SE/4 of Section 28 and E/2 and SW/4 of Section 33 of Township 18 South, Range 8 West; and
- (e) Sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21 and 22 and SE/4 of Section 5, E/2 of Section 8, SE/4 SE/4 of Section 18 and E/2, SE/4 NW/4 and NE/4 SW/4 of Section 19 of Township 19 South, Range 8 West.

In Jefferson and Tuscaloosa Counties:

- (a) W/2 of Section 13 and E/2 of Section 14 of Township 18 South, Range 8 West.

RULE 3: COAL DEGASIFICATION WELLS DEFINED.

Coal degasification wells drilled in the Oak Grove Coal Degasification Field, Jefferson and Tuscaloosa Counties, Alabama, shall be construed to mean wells drilled for the purpose of removing occluded gas from those strata correlative to the coal seams encountered in the Pottsville Coal Interval between 206 feet and 446 feet as indicated on the density log of the U. S. Pipe & Foundry Company Gob Vent Hole 11-2-1 located 1070 feet FNL and 1798 feet FEL of Section 11, Township 19 South, Range 6 West, Jefferson County, Alabama, and between 171.73 feet and 1846.50 feet below ground surface of U. S. Steel Core Hole No. C-3, located 763 feet FWL and 712 feet FSL of Section 18, Township 18 South, Range 5 West, Jefferson County, Alabama, as indicated on the electrical log and/or core from said wells, and all zones in communication therewith, and all productive extensions thereof.

Wells drilled in the Oak Grove Coal Degasification Field shall be completed in any/all or any combination of the coal seams defined above.

RULE 4: SPACING OF COAL DEGASIFICATION WELLS.

A. (1) The following described portion of the Oak Grove Coal Degasification Field, located in Jefferson and Tuscaloosa Counties, Alabama, is subject to underground mining, to-wit:

Sections 7, 17, 18, 19, 20, 21, 29, 30, 31 and 32, Township 18 South, Range 5 West;

Section 6, Township 19 South, Range 5 West;

Sections 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35 and 36, Township 18 South, Range 6 West;

Sections 1, 2, 3, 4, 5, 6, 7, 8, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 32, 33 and 34, Township 19 South, Range 6 West; and

Sections 1, 12, 13 and 24, Township 19 South, Range 7 West.

Spacing of coal degasification wells for the above-described area shall be as follows:

In areas of common mineral ownership of coalbed gas, every well drilled as a coal degasification well in the Oak Grove Coal Degasification Field shall be drilled on a drilling unit consisting of not less than 10 nor more than 80 contiguous acres so as to

provide maximum drainage of methane from coal. An affidavit attesting to common mineral ownership shall accompany all drilling permit applications, and the operator shall designate the unit configuration, which shall be subject to approval of the State Oil and Gas Supervisor. In areas of diverse mineral ownership of coalbed gas, every well drilled as a coal degasification well in the Oak Grove Coal Degasification Field shall be drilled on a drilling unit consisting of a governmental quarter-quarter section.

(2) In all other areas within the field limits of the Oak Grove Coal Degasification Field, Jefferson and Tuscaloosa Counties, Alabama, spacing of coal degasification wells shall be as follows:

Every well drilled as a coal degasification well shall be drilled on a drilling unit of approximately 40 contiguous acres consisting of a governmental quarter-quarter section or on a drilling unit of approximately 80 contiguous acres consisting of two adjacent governmental quarter-quarter sections.

B. Unless an exception is granted by the Board, all coal degasification wells shall be located at least 150 feet from every exterior boundary of the unit, at least 300 feet from any other coal degasification well, and at least 300 feet from every exterior boundary of the Field.

C. Gob wells and/or gob-production wells may be exempted by the Oil and Gas Supervisor from the spacing requirements set forth in Subsection B above and in Subsection A of Rule 14, if the unit assigned to the gob well and/or gob production well is in an area of common mineral ownership where correlative rights will be protected as a result of said common mineral ownership.

D. Upon approval from the Oil and Gas Supervisor, horizontal boreholes may be exempted from the spacing requirements set forth in Subsection B above, and may be allowed to cross the boundary separating two adjacent units.

There shall be no restriction as to how close a horizontal borehole within a unit may be to another horizontal borehole within that unit.

E. Coal degasification wells drilled vertically, including gob wells and/or gob-production wells, and horizontal boreholes may be drilled and produced simultaneously from the same unit, in the

Pottsville Coal Interval and the gas production from the wells shall be allocated in accordance with these Special Field Rules, i.e., production from vertical wells shall be allocated based on surface acres in the unit, and production from horizontal boreholes in the unit shall be based on Rule 10(C) of these Special Field Rules.

RULE 5: DRILLING AND COMPLETION OPERATIONS.

Drilling and completion operations in all wells except horizontal boreholes shall be subject to and in accordance with the following provisions:

A. Unless an exception is granted by the Supervisor, surface casing for each coal degasification well shall be set to a depth of 50 feet, or into the top of the Pottsville Formation, whichever is deeper, and cemented in place with a sufficient amount of cement to fill the calculated annular space to the surface.

B. The surface casing and cement shall be designed to withstand three hundred (300) psi. The cement shall be allowed to stand a total of twelve (12) hours before drilling the plug.

C. For gob wells or gob-production wells, the production casing will be set within 100 feet above the highest coal seam in the Pottsville Coal Interval. The Production string shall be cemented with the sufficient amount of cement to fill the calculated annular space to a point at least two hundred (200) feet above the casing seat or to the surface if casing seat is less than two hundred (200) feet; or the Operator may elect to run 150 feet of surface casing cemented in place with a sufficient amount of cement to fill the calculated annular space to the surface in lieu of running production casing so long as no coal seam other than the ones defined in these Special Field Rules as being contained in the Pottsville Coal Interval is left open to the wellbore.

D. All other casing requirements shall be in accordance with Rule 400-4-3-.02(2) Casing Requirements of the Rules and Regulations Governing the Permitting, Drilling and Production of Coalbed Methane Gas.

E. Other methods of completion are subject to approval by the Supervisor.

F. A diverter consisting of a pack-off assembly and a blooie line valve shall be utilized as a minimum blowout prevention device, when wells are drilled with air.

G. Cuttings need not be filed for any coal degasification well. Cores need not be taken with regard to any coal degasification well, but, if taken, must be filed with the Board within six (6) months after completion of the well.

RULE 6: EQUIPMENT FOR TESTS.

Each producing well excluding horizontal boreholes shall be so equipped that capacity and gas/water ratio tests may be made.

Equipment shall be maintained in a proper operating condition as will permit the adequate testing of each producing well without the necessity of closing in any other well. Such equipment and connections thereto shall be subject to the approval of the Supervisor.

RULE 7: MEASUREMENT OF PRODUCTION.

The Operator of the Oak Grove Coal Degasification Field shall cause to be provided proper metering devices, and such connections thereto as are necessary to measure the total production therefrom.

RULE 8: USE OF METERS.

The use of meters for testing and for measurement of total production shall be subject to and in accordance with the following provisions:

A. All meters used to measure total production shall be designed and installed in conformance with the recognized metering practices and approved by the State Oil and Gas Supervisor. Production from the individual wells may be commingled prior to measurement, provided there is proper allocation to each producing unit for its share of total production.

B. All meters and equipment affecting the accuracy of meters that measure total production shall be kept in good working order. Each such meter shall be calibrated at least once each quarter by means of a calibrated tank, a calibrated meter prover or a master meter. When a meter is found to deviate in its recording by more than two percent, it

shall be adjusted to conform to the said tolerance limitation of two percent or the meter calibration factor corrected.

RULE 9: GAS PRODUCTION CONFORMED TO COAL MINING REQUIREMENTS.

In recognition of the fact that the Owner or Operator of the Oak Grove Coal Degasification Field intends to recover some or all of the coal from and about which gas is recovered pursuant to these rules:

A. The Operator may produce gas from coal degasification wells at as great a rate as the Operator shall desire. No maximum allowable shall be applied to said Wells.

B. The Operator may permanently discontinue production from any well or wells at any time for the purpose of allowing coal to be mined from the area occupied by said well or wells, or for any other reason. No provision of these Special Field Rules or of the Board's general rules shall prevent the Operator of the coal mine from "mining through", i.e., physically cutting and removing, that portion of the plug of a closed coal degasification well that extends into coal being mined, if any, or of otherwise making use of a non-producing well for the enhancement of mine ventilation.

RULE 10: HORIZONTAL BOREHOLES.

Drilling, completion and operation of horizontal boreholes drilled for the purpose of degasification of the coalbed in the furtherance of mining activity shall be subject to and in accordance with the following provisions:

A. Horizontal boreholes may be drilled on either side of an advancing mine section or in mine workings where additional horizontal boreholes are needed as determined by the Coal Mine Operator. The Coal Mine Operator may determine the size and location of the holes and the angle of entry into the coal seam or seams. However, horizontal boreholes shall comply with the spacing requirements of Rule 4 and Rule 14 herein. A portion of the horizontal borehole may be grouted in the hole with cement. As the horizontal boreholes are being drilled surveys shall be taken periodically to determine the location of the borehole and said surveys shall be submitted to the Board in accordance with Rule 10B. Once the drilling process has been completed, the horizontal borehole shall be coupled to a separator and then connected to a gas

gathering line for transportation to a vertical pipeline from the mine to the surface. Once the gas produced through the horizontal boreholes is delivered to the surface it shall be subject to the rules contained herein pertaining to metering and transportation.

B. Each month, the Operator shall file a plat of the horizontal boring system which plat shall indicate the traverse of each borehole across the unit or units to be affected thereby and it shall also show the borehole footage for each unit or units. Such plat shall be submitted to the Board by the fifteenth (15th) day of the following month. The plat shall further indicate the location and status of any vertical wells, if any, in the area to be affected by the horizontal borehole operation.

C. The method of allocating monthly gas production to horizontal boreholes shall be as follows:

1. Production from horizontal boreholes shall be metered at the surface of the vertical pipeline connected to the horizontal boreholes.
2. The total horizontal borehole footage in production at the beginning of each month shall be determined from the survey plats and any other operational information available to the Operator at the beginning of each month.
3. The monthly gas production metered at the vertical pipeline connected to the horizontal boreholes shall be divided by the total horizontal borehole footage productive at the beginning of each month so as to establish a monthly gas flow per productive horizontal borehole foot.
4. Gas production attributed to each unit thereof shall be calculated by multiplying the productive horizontal footage in each unit by the gas flow per productive horizontal borehole foot, as determined by the formula given in Subsection 3 above.

D. In accordance with Rule 9 hereof and the recognition of the priority of the mining activity incorporated therein, the following rules shall also apply to the horizontal boreholes:

1. The determination of the location and length of all

horizontal boreholes, and thereby the units to be affected, shall be made by the Coal Mine Operator as necessitated by the current and planned mining activity.

2. The Coal Mine Operator shall have the right to convert any and all horizontal boreholes from production to injection for dust control as necessary to enhance the mineability of the coal seam penetrated by such horizontal borehole.

RULE 11: GENERAL RULES AND REGULATIONS:

In addition to the Special Field Rules hereinabove set forth, all of the provisions of the State Oil and Gas Board Administrative Code, and all amendments thereto, which rules and all amendments thereto are made a part hereof by reference, shall remain in full force and effect with respect to the Oak Grove Coal Degasification Field, except as modified by the Special Field Rules set forth herein. In the event of conflict between the provisions of said statewide orders, or the amendments thereto, and the Special Field Rules prescribed herein, the Special Field Rules adopted herein shall govern and control.

IN ADDITION TO THE ABOVE, THE FOLLOWING RULES SHALL APPLY TO UNIT OPERATIONS IN THE DESCRIBED UNIT WITHIN THE OAK GROVE COAL DEGASIFICATION FIELD AND TO THE EXTENT THAT ANY OF THE FOLLOWING RULES CONFLICT WITH ANY OF THE ABOVE RULES, THE FOLLOWING RULES SHALL GOVERN AS TO UNIT OPERATIONS.

RULE 12: DEFINITION OF UNIT AREA.

The Unit Area of the Oak Grove Coal Degasification Field, as used herein, is that area of land in Jefferson County, Alabama, described as follows:

All of Section 31 and the NW/4 of Section 32, Township 18 South, Range 5 West; the N/2 of NW/4 of Section 6, Township 19 South, Range 5 West; all of Section 36, Township 18 South, Range 6 West; the N/2 of the NE/4 and the N/2 of NW/4, all in Section 1, Township 19 South, Range 6 West.

RULE 13: UNITIZED FORMATION DEFINED.

As used herein the term "Unitized Formation" shall mean those strata correlative to the coal seams encountered in the interval between 171.73 feet and 1060 feet below ground surface of the U. S. Steel Core Hole Well No. C-3 located 763 feet East of the section line and 712 feet

North of the section line in the Southwest Quarter of the Southwest Quarter of Section 18, Township 18 South, Range 5 West, Jefferson County, Alabama, as indicated on the electrical log and core of said well, all zones in communication therewith, and all productive extensions thereof.

RULE 14: SPACING OF WELLS.

A. Unless an exception is granted by the Board, after notice and hearing, every well drilled as a coal degasification well shall be located at least 150 feet from every exterior boundary of a Unit Area, and at least 300 feet from every exterior boundary of the Field.

B. Upon approval from the Oil and Gas Supervisor, horizontal boreholes may be exempted from the spacing requirements set forth in Subsection A above, and may be allowed to cross the boundary separating two adjacent units.

THIS BOARD EXPRESSLY RESERVES ITS RIGHTS, AFTER NOTICE AND HEARING TO GRANT EXCEPTIONS, ALTER, AMEND OR REPEAL ANY AND ALL OF THE ABOVE RULES.