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* KEY ISSUES: Waste *
*           Discovery well; interior lease line *
*           No regular location *
* * * * *
* FINAL ORDER: R37 exception approved *
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**Proposal for Decision**

**Rule 37 Case No. 0207663**

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**APPLICATION OF PETROREAL, INC. FOR AN EXCEPTION TO STATEWIDE RULE 37 TO AMEND ITS PERMIT TO AUTHORIZE COMPLETION OF THE NO. 1 WELL, MAY/WOLF UNIT, IN THE PETROREAL BROOM CITY (WOODBINE) FIELD, ANDERSON COUNTY, TEXAS**

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**APPEARANCES:**

**REPRESENTING:**

**APPLICANT**

Glenn E. Johnson

PetroReal, Inc.

Charles Hamilton

"

**PROTESTANT**

Seldon B. Graham, Jr.

D.O.E. Energy

Jim A. Martin

"

**PROCEDURAL HISTORY**

<b>Application Filed:</b>	January 24, 1995
<b>Notice of Hearing:</b>	January 26, 1995
<b>Corrected Notice:</b>	January 31, 1995
<b>Hearing Held:</b>	February 14, 1995
<b>PFD Circulated:</b>	April 12, 1995

**Heard by:**

Colin K. Lineberry &  
Larry Borella,  
Hearings Examiners

Thomas H. Richter, P.E.,  
Technical Examiner

### **STATEMENT OF THE CASE**

PetroReal, Inc. ("PetroReal" or "applicant") seeks to amend its permit for authorization to complete its existing May/Wolf Well No. 1 in the newly discovered PetroReal Broom City (Woodbine) Field in Anderson County. The well, which is the discovery well for the applied-for field, is located 302 feet north of an interior lease line on the irregularly shaped unit. Statewide Rule 37 requires a lease/unit line offset of at least 467 feet. PetroReal asserts that an exception to Rule 37 is necessary to prevent waste. The application is protested by D.O.E. Energy.

### **APPLICANT'S EVIDENCE AND POSITION**

PetroReal initially applied for and received a regular permit to drill the May/Wolf Well No. 1 to the Sub-Clarksville field at an applied-for location 330 feet from the nearest lease line. The field rules for the Sub-Clarksville field require 20 acre units and a 330 foot offset from lease lines. Due to a surveyor's error, the well was actually drilled only 302 feet from the nearest lease line. The Sub-Clarksville field was faulted out of the May/Wolf Well No. 1. Upon completion of the well, however, PetroReal discovered a new field. The new field was subsequently approved and designated as the PetroReal Broom City (Woodbine) Field by the Commission on July 13, 1994. The new PetroReal Broom City (Woodbine) Field ("PBCW Field") is subject to Statewide Rule 37 requiring a unit line offset of at least 467 feet.

PetroReal attempted to lease sufficient additional acreage for the unit to comply with the lease line offset requirement but was unable to lease all of the mineral interest in a 5.9 acre tract to the southwest of the subject well. D.O.E. Energy is the lessee of the remaining undivided mineral interest in that tract.

PetroReal offered geological evidence of unusual sub-surface conditions consisting of intersecting fault planes, including a southwest-northeast sealing fault located immediately north of the subject well, and a structurally higher pay interval at the applied-for location. PetroReal's evidence further showed that the May/Wolf Well No. 1 is superior (updip) relative to the existing well in the PBCW Field and that the 36,000 to 51,000 barrels of "attic" oil that will be recovered by the May/Wolf Well No. 1 cannot be recovered by any existing well or by any well in a regular

location.

PetroReal's evidence revealed that the May/Wolf Well No. 1 commenced production in May of 1994 and had cumulative production through December 1994 of 27,527 barrels of oil and 22,308 mcf of gas. The well is shut-in pending the outcome of this proceeding.

### **PROTESTANT'S EVIDENCE AND POSITION**

D.O.E. Energy presented evidence that it is the lessee of a tract offsetting the May/Wolf Unit and that it is also the lessee of an undivided mineral interest in a 5.9 acre tract within the prescribed lease line distance from the May/Wolf Well No. 1. D.O.E. Energy did not present any evidence controverting PetroReal's assertion that the May/Wolf Well No. 1 would recover a substantial amount of oil that would not otherwise be recoverable and did not controvert any of PetroReal's other geological evidence. D.O.E. Energy asserted that PetroReal has not acted in good faith and that this should be considered in establishing the effective date for the production allowable for the May/Wolf Well No. 1.

### **LEGAL BACKGROUND AND EXAMINERS' OPINION**

Railroad Commission Statewide Rule 37 was originally adopted in 1919. Its primary purpose is currently recognized as the reduction of physical waste by precluding excessive and/or disproportionate rates of withdrawal from discrete areas in a reservoir. As originally enacted, Rule 37 provided for 2 acre spacing by requiring wells to be located a minimum of 150 feet from lease or property lines and 300 feet from other wells on the same lease. The Rule 37 distances currently in effect were adopted in 1962 and require a distance from lease lines of 467 feet and a distance of 1200 feet between wells. These distances are based on a standard unit size of forty acres.

Exceptions to the Rule 37 spacing requirements may be granted to prevent waste or to protect correlative rights. Correlative rights are not at issue in this case. The applicant, PetroReal, asserts that it is entitled to a Rule 37 exception based on waste.

The Texas Supreme Court has held that a Rule 37 exception to prevent waste may be justified if a substantial amount of oil, that would otherwise ultimately be lost, will be recovered by the well at issue. Accordingly, an applicant seeking an exception to rule 37 based on waste must establish three elements: 1) that unusual conditions, different from conditions in adjacent parts of the field, exist under the tract for which the exception is sought; 2) that, as a result of these conditions, oil will be recovered by the well for which a permit is sought that would not be recovered by any existing well or by an additional well drilled at a regular location; and, 3) that the amount of otherwise unrecoverable oil is substantial.

**Oil and Gas Docket No. 0207663**  
**Proposal for Decision**  
**Page No. 4**

PetroReal presented uncontroverted geological evidence that intersecting fault planes under the May/Wolf Unit create boundaries that confine the oil producing sands, i.e. pay interval, of the PetroReal Broom City (Woodbine) Field to a relatively small area and that the May/Wolf Well No. 1 is completed at or near the very top of the pay interval. PetroReal presented further uncontroverted evidence that the oil "trapped" in the higher areas of the pay interval by these unusual conditions would be recovered by the May/Wolf Well No. 1 and could not be recovered by any existing well or by a new well drilled at a regular location. In fact, due to the irregular shape of the unit and the internal lease line, there is not a regular Rule 37 location on the unit.

PetroReal proved that the amount of otherwise unrecoverable oil that would be recovered by the May/Wolf Well No. 1 was between 36,000 and 51,000 barrels. The courts have held that 25,000-30,000 barrels of recoverable oil constitutes a substantial amount of oil for purposes of determining whether a Rule 37 exception based on waste is warranted. PetroReal established all three of the elements necessary to authorize a Rule 37 exception based on waste for the May/Wolf Well No. 1. Accordingly, the examiners recommend that the requested exception be granted and a permit issued to PetroReal.

**FINDINGS OF FACT**

1. On January 24, 1995, PetroReal, Inc. ("Applicant") applied on Form W-1 for an amended permit to authorize the completion of its existing Well No. 1 on the May/Wolf Unit, Anderson County, Texas in the PetroReal Broom City (Woodbine) Field. Applicant seeks authorization for its existing well which is located 470 feet from the northeast line of the unit and 302 feet from an internal lease line. The well is 2100 feet from the southwest line and 302 feet from the southeast line of the Nathaniel Morgan Survey, Abstract No. A-532.
2. At least 10 days notice of the hearing was given to all designated operators, lessees of record for tracts that have no designated operator, and owners of record of unleased mineral interests for each adjacent tract and each tract nearer to the well than the prescribed minimum lease-line spacing distance.
3. Applicant has applied for completion of its well in the newly designated PetroReal Broom City (Woodbine) Field which has spacing requirements of 467 feet from unit/lease lines.
4. Applicant's May/Wolf Unit is a 40 acre tract of irregular shape. Due to the irregular shape of the May/Wolf Unit and the internal lease line, there is no regular well location.
5. PetroReal, Inc.'s application has been protested by D.O.E. Energy ("D.O.E." or "Protestant"). Protestant is the operator of an offset tract to the south and southwest of the May/Wolf Unit. Protestant is also a lessee of an undivided mineral interest in a 5.9 acre tract located within

**Oil and Gas Docket No. 0207663**  
**Proposal for Decision**  
**Page No. 5**

the May/Wolf Unit and to the south and southwest of the May/Wolf Well No. 1.

6. As a result of D.O.E.'s undivided interest in the 5.9 acre tract, there is a lease line within the May/Wolf Unit that is within 302 feet of the May/Wolf Well No. 1.
7. PetroReal originally applied for, and received, a regular permit to drill the May/Wolf Well No. 1 to the Sub-Clarksville field at an applied-for location 330 feet from the nearest lease or unit line.
8. Due to a surveyor's error, applicant actually drilled the May/Wolf No. 1 well only 302 feet from the nearest lease line. During the drilling of the subject well, PetroReal discovered a new field that is productive of oil.
9. The Commission designated the new field as the PetroReal Broom City (Woodbine) Field on July 13, 1994. The new PetroReal Broom City (Woodbine) Field is subject to Statewide Rule 37 requiring a lease/unit line offset of 467 feet.
10. Intersecting fault planes and a structurally high pay interval under the applied-for location create geological conditions that are unusual and distinguishable from conditions under the remainder of the field and the offsetting tracts.
11. As a result of the unusual geological conditions, the May/Wolf Well No. 1 will recover oil that cannot be recovered by any existing well or by a new well in a regular or less irregular location.
12. The amount of otherwise unrecoverable oil that will be recovered from the PetroReal Broom City (Woodbine) Field by the May/Wolf Well No. 1 is a substantial amount, consisting of between 36,000 and 51,000 barrels. Without the applied for exception, these reserves cannot be recovered.

**CONCLUSIONS OF LAW**

1. Proper notice of hearing was timely given to all persons legally entitled to notice.
2. All things have occurred and have been done to give the Commission jurisdiction to decide this matter.
3. An exception to the lease line spacing requirements applicable to the PetroReal Broom City (Woodbine) Field is necessary for completion of the May/Wolf No. 1 well in that field.

**Oil and Gas Docket No. 0207663**  
**Proposal for Decision**  
**Page No. 6**

4. Approval of the applied-for permit is necessary to prevent the waste of a substantial amount of hydrocarbons within the PetroReal Broom City (Woodbine) Field.

**RECOMMENDATION**

The examiners recommend that the subject application be approved in accordance with the attached final order.

Respectfully submitted,

Colin K. Lineberry  
Hearings Examiner

Thomas H. Richter, P.E.  
Technical Examiner