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* KEY ISSUES: Confiscation *
* Regular location available *
* Did not meet burden of proof *
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* FINAL ORDER: R37 EXCEPTION DENIED *

RULE 37 CASE NO. 0205274

**APPLICATION OF CORLENA OIL COMPANY FOR AN EXCEPTION TO STATEWIDE
RULE 37 FOR ITS WELL NO. 1, BOURASSA UNIT LEASE, WATERFIELD (MORROW,
UPPER) FIELD, HEMPHILL COUNTY, TEXAS**

APPEARANCES:

APPLICANT:

Flip Whitworth, Attorney
Doug Fisk
Ted Francis

REPRESENTING:

Corlena Oil Company

PROTESTANTS:

George C. Neale, Attorney
W. N. McKinney
Chris Broadway
Bruce Heath

Sonat Exploration Company

Brian Sullivan, Attorney
Al Chinn
Bob Anderson

Kaiser-Francis Oil Co.

PROPOSAL FOR DECISION

PROCEDURAL HISTORY

NOTICE OF APPLICATION:	May 11, 1994
DATE OF HEARING:	May 26, 1994
TRANSCRIPT DATE:	June 23, 1994
PFD CIRCULATED:	August 9, 1994
HEARD BY:	Barbara Epstein, Hearings Examiner Charles Dickson, Director - Technical Hearings

STATEMENT OF THE CASE

This is the application of Corlena Oil Company (Corlena) for an exception to Statewide Rule 37 to drill Well No. 1 on the Bourassa Unit Lease in the Waterfield (Morrow, Upper) Field. This well will be Corlena's first well on a 1280 acre united lease. The exception is required because the proposed well will be located 467 feet from the north lease line and 600 feet from the east lease line. The proposed well would also be located 1107' from an existing well on the Bourassa Unit, the Midwestern Teas Well No. 107, which is still operated by Midwestern Exploration Company. Field rules for the Waterfield (Morrow, Upper) require 1867'/3735' spacing. The application also includes a Wildcat zone.

This application is protested by Sonat Exploration Company (Sonat), the operator of four offsetting wells to the north, and by Kaiser-Francis Oil Company (Kaiser-Francis), a working interest owner in the two sections to the north operated by Sonat.

DISCUSSION OF THE EVIDENCE

BACKGROUND

The Waterfield (Morrow, Upper) Field was discovered on June 27, 1983 and field rules were adopted in March, 1984. In June, 1992, the Commission granted R & R Exploration & Production a Rule 37 exception to re-enter the Teas Well No. 1-7 on the 640 acre Teas Lease with a target zone of the Bradstreet reservoir (found at a depth of 14,000 feet) in the Waterfield (Morrow, Upper) Field. (Rule 37 Case No. 109,190) The well had been drilled in 1974 as a wildcat regular location and then plugged and abandoned in 1975 as a dry hole. (This well has been variously referred to as the Teas No. 107 and the Midwestern Teas No. 1.)

Midwestern Exploration Company acquired the Teas No. 1-7 from R & R and formed the

1280 acre Bourassa Unit, encompassing Sections 6 and 7, which it has now farmed out to Corlena, retaining operation of the Teas Well No. 1-7. Midwestern also drilled the Doris Well No. 1 in Section 6; the well contained zero net pay and was dry.

There have been fifteen dry holes and five producing wells drilled in the Waterfield Morrow, Upper Field. Six active wells are carried on the proration schedule; Midwestern Exploration operates one, Sonat operates four, and Upland Resources operates the remaining well. However, since both the applicant and the protestants believe that the Upland Resources well is in another field, only five wells were used in the calculations of reserves for the Bradstreet reservoir.

Three producing wells and four dry holes in the field are drilled at Rule 37 exception distances from property lines. The proposed well would be drilled approximately 1107 feet from the Teas No. 107 and 467 feet from the offsetting lease to the north, both distances making a Rule 37 exception necessary.

APPLICANT'S EVIDENCE

Corlena requests permission to drill a well which would be located 467' FNL and 600' FEL of Section 7. This would place the proposed Corlena well 1107 feet from the Midwestern Teas No 1-7. Corlena believes that the proposed well is necessary to prevent confiscation of reserves from Sections 6 and 7 by the wells to the north in Sections 15, 16, 17, and 18 operated by Sonat.

Corlena testified that a minimum of 6% porosity has been used to estimate productivity of a well in this field. This cutoff was used in previous hearings which resulted in approved Rule 37 exceptions for the producing R & R well (now the Midwestern Teas No. 1-7) and a Kaiser-Francis well that proved to be dry. Corlena believes that it must encounter 11 feet of net pay to recover the gas under its tract since the Teas No. 1-7 showed a net pay of 6 feet and has proved to be a poor well.

Corlena presented a net isopach map of the Bradstreet reservoir which indicated that on Sections 6 and 7 there are 865 acres within a zero net pay line. (Tr. p. 27) Although its isopach indicates a possible regular location in the southern portion of the unit, Corlena believes that it cannot drill a productive well there because the reservoir is tight and has low permeability, even though the isopach map indicates greater than 10 feet of net pay. Consequently, Corlena must drill a well north of the Teas No. 1-7 to gain net pay and recover its share of hydrocarbons. (Tr. p. 29)

Corlena presented a bottom hole pressure (BHP/Z) vs. cumulative production curve based on the five producing wells in the field. This exhibit indicates that the reservoir originally contained 29.3 BCF of gas and, by using a 750 PSIG abandonment pressure, would ultimately produce 26.2 BCF of gas.

The applicant also presented volumetric calculations based on reservoir data which indicated the entire field contains 3051 acres above a zero net pay line with 29.74 BCF of original gas in place.

The current remaining gas in place for the field was estimated to be 16.35 BCF of which 14.62 BCF is recoverable. These same volumetric calculations indicate that Sections 6 and 7 contain 865 acres above a zero net pay line with 5.449 BCF of original gas in place. The current remaining gas in place for these two sections is 2.996 BCF of which 2.679 BCF is recoverable.

Cumulative production for the four Sonat operated wells to May 1, 1994 is estimated to be 13.16 BCF and the Midwestern 107 is estimated to have a cumulative production of 8400 MCF.

Corlena believes that the Midwestern No. 1-7 well is a poor well because it has low permeability and is tight. This well has been fracture treated and continues to produce only 180 MCFD according to a May, 1994 G-10 test. Corlena believes that the Midwestern No. 1-7 will only be able to produce 0.20 BCF of gas throughout its life. Therefore, with 2.679 BCF of recoverable gas under Sections 6 and 7 and 0.20 BCF coming from the Midwestern well, Corlena is entitled to recover 2.479 BCF of gas as its share of gas underlying the Bourassa unit and a well at the proposed location is necessary to recover this gas.

The applicant did not present any evidence concerning the need for a Rule 37 exception location in a Wildcat zone.

PROTESTANT'S EVIDENCE

The protestants believe that Sections 6 and 7 contain only 0.7/0.8 BCF of recoverable gas and that these reserves can be recovered by the existing Midwestern operated Teas No. 1-7. Protestants contend that if Corlena is allowed to drill a well at the proposed location, the well would drain reserves from the Sonat tracts to the north.

The protestant presented a decidedly different geological picture than the applicant's. Sonat presented a net pay isopach map which indicated only 88 acres in Section 7 and 152 acres in Section 6 above a zero net pay line. Protestants' total of 240 acres contrasts sharply with Corlena's calculation of 865 productive acres in the unit.

The protestants pointed out that a 1992 Commission Final Order limits the Teas No. 1-7 well in the Bradstreet Morrow, Upper Field to 408 productive acres in Section 7 for allowable purposes until a productive acreage hearing is conducted. (This well is currently carried on the proration schedule with a proration unit of 408 acres.) Since Corlena did not present any evidence to show how the designation of productive acreage has changed since the hearing, the protestant contends that the proration schedule acreage cannot be reconciled to Corlena's current isopach map which indicates more productive acreage than 408 acres in Section 7.

The protestants presented a BHP/Z curve of the field, which, if extended to an abandonment bottom hole pressure of 350 PSIG, shows recoverable reserves of 31 BCF in the field. (This calculation contrasted with the applicant's abandonment pressure of 750 PSI and an ultimate recovery

of 26.3 BCF.) Protestants believe that the current remaining recoverable reserves are 18 BCF, given an ultimate field recovery of 31 BCF and a current cumulative production of 13 BCF.

The protestants believe that their geologic interpretation shows there are 781 acre feet of reservoir in the 88 acres of Section 7, containing 0.1743 BCF of remaining recoverable reserves. According to protestant's calculations, there are 254 acre feet of reservoir in the 152 acres of Section 6, which contain 0.535 BCF of remaining recoverable gas. Sections 6 and 7 have 240 productive acres containing 1035 acre feet and 0.709 BCF of recoverable gas.

The Midwestern 1-7 well is producing 180 MCFD, which is 3.3% of the field total, if it is compared to the current 5452 MCFD production rate of the five wells in the field. The Midwestern well will ultimately produce 0.594 BCF of gas or 3.3% of the 18 BCF remaining during the life of the field. The protestants believe that the production from the Midwestern Teas Well No. 1-7 will constitute the recoverable reserves under the Bourassa unit although Corlena contended that the Midwestern well will only produce 0.200 BCF.

The protestants believe that the reason the Midwestern No. 1-7 has shown such poor production is that the well has collapsed casing in the perforated Bradstreet section. Protestants believe that the well is capable of producing more than 180 MCFD and is not necessarily completed in a tight, low permeability zone. The protestants used the potential test from the Midwestern Teas 107 well of 1480 MCFD as an indicator that the well is capable of producing more than 180 MCFD. The protestants argue that, if the 1-7 well can produce 225 MCFD, its ultimate recovery should be 0.737 BCF of gas, or 4.1% share of the current rate from the reservoir, 4.1% of the remaining 18 BCF of recoverable gas reserves.

The protestants contend that a new well would begin producing at a rate of 2500 MCFD. Looking at the current production rates of the five producing wells that were used as control data, a new well would produce 31.4% of the current production rate, and ultimately receive 6.066 BCF, 31.4% of the remaining 18 BCF of recoverable reserves. Protestants argue that this percentage is more than the applicant's fair share of hydrocarbons.

EXAMINERS' OPINION

It is the examiners' opinion that this exception to Statewide Rule 37 should be denied because the applicant failed to show that a regular location cannot recover its share of hydrocarbons underlying its tract.

If the applicant's interpretation is correct that there is pay in the southern part of Section 7, then it should be reasonable to assume that Corlena can drill a well at a regular location. On the other hand, if the southern portion of Section 7 is so tight that a well cannot be drilled at a regular location, then those reserves are not recoverable and Corlena has miscalculated its unit reserves---

and its productive acreage. Although Corlena mentioned in passing that it is being drained by Sonat, the location of the proposed well suggests that the reserves Corlena can produce will come from the offsetting tracts and not entirely from reserves under its unit. There is also nothing in the record to indicate what reserves, if any, have been drained by offsetting production. Therefore any argument of recouping drained reserves is not relevant in this case.

It is the examiners' understanding that Corlena's interest in the Bourassa Unit is a farm-out, so Corlena will not acquire any acreage until it drills a well. The examiners do not believe that Corlena is entitled to a well because it failed to negate a regular location in light of its geologic interpretation. But the examiners do not propose any additional findings relating to the ability of the Teas Well No. 1-7 to drain the unit because the failure of the applicant to explain the repercussions of the farmout (e.g. Midwestern's retained acreage) makes the Teas well a moot issue in the examiners' analysis. Finally, it is unclear from Corlena's presentation whether the Wildcat application is a Rule 37 distance from the Teas well, because Corlena did not indicate whether the well constitutes a separate lease.

Based on the evidence introduced into the record and the testimony presented at the hearing, the examiners make the following findings of fact and conclusions of law.

FINDINGS OF FACT

1. At least 10 days' notice of this hearing was sent to the designated operator, all lessees of record for tracts that have no designated operator, and all owners of record of unleased mineral interests for each adjacent tract and each tract nearer to the proposed location than the prescribed minimum lease-line spacing distance.
2. Applicable field rules in this application are:

Waterfield, (Morrow, Upper) 1867'/3735'/640 ac.

Wildcat (above 14,300') 467'/1200'/640 ac.
3. An exception to Statewide Rule 37 is required because the proposed well would be located 467 feet south of the nearest lease line.
4. This application is protested by Sonat Exploration Company, the operator of four offsetting wells to the north and by Kaiser-Francis Oil Company, a working interest owner in the two sections to the north operated by Sonat.
5. Corlena Oil Company presented evidence of productive acreage in the southern portion of the Bourassa Unit, but failed to show that a regular location cannot recover the remaining

reserves under the tract.

6. The applicant did not present any evidence concerning the proposed location in the Wildcat Field.

CONCLUSIONS OF LAW

1. Notice of this hearing was given to all persons entitled to notice.
2. All things have occurred to give the Commission jurisdiction to decide this matter.
3. The applicant has not met its burden of proof to show that the proposed location is necessary to prevent confiscation.

EXAMINERS' RECOMMENDATION

The examiners recommend that the proposed findings and conclusions be adopted and that this application be **DENIED**.

Respectfully submitted,

Barbara Epstein
Hearings Examiner

Charles Dickson, Director
Technical Hearings

BAE/ds