RULE 37 CASE NO. 0262473
District 02

APPLICATION OF JMM ENERGY LLC FOR A RULE 37 EXCEPTION FOR THE HENRY HEINRICH LEASE, WELL NO. 4R, ALOE (CATAHOULA), ALOE (2200), HORADAM (2200 MIOCENE) AND WILDCAT FIELDS, VICTORIA COUNTY, TEXAS

APPEARANCES:

FOR APPLICANT:	**APPLICANT:**
Joe Gonzalez Max Masterson	JMM Energy LLC
FOR PROTESTANT:	**PROTESTANT:**
Don Rhodes	Henry Horadam

PROPOSAL FOR DECISION

PROCEDURAL HISTORY

DATE APPLICATION FILED:	July 6, 2009
DATE OF NOTICE OF HEARING:	July 27, 2009
DATE OF HEARING:	August 28, 2009
HEARD BY:	James M. Doherty, Hearings Examiner Donna Chandler, Technical Examiner
DATE PFD CIRCULATED:	October 15, 2009

STATEMENT OF THE CASE

JMM Energy, LLC ("JMM") seeks a Rule 37 exception for the 146.5 acre Henry Heinrich Lease, Well No. 4R, Aloe (Catahoula) Field, Victoria County, Texas. It also seeks to permit the proposed well in the Aloe (2200), Horadam (2200 Miocene), and Wildcat Fields. The proposed location is regular to lease lines in all of the applied-for fields, being 567 feet from the southeast line and 1,653 feet from the northeast line of the lease. The proposed location is also regular under between well spacing rules applicable to the Aloe (2200), Horadam (2200 Miocene) and Wildcat Fields because this would be a first well in these fields on the lease. However, JMM's primary objective is the Aloe (Catahoula) Field, and in this field, Well No. 4R is proposed to be produced

concurrently with Well No. 7 on the same lease. A between well Rule 37 exception is required in the Aloe (Catahoula) Field, because the proposed well is 528 feet from Well No. 7, and field rules for the Aloe (Catahoula) Field provide for between well spacing of 660 feet. A plat showing the Henry Heinrich Lease and proposed location of Well No. 4R is attached to this proposal for decision as Appendix 1. The application is opposed by Henry Horadam ("Horadam") who is the operator of the Horadam Bros. Lease which offsets the Henry Heinrich Lease to the north.

DISCUSSION OF THE EVIDENCE

JMM

The examiners have officially noticed Commission records disclosing that field rules for the Aloe (Catahoula) Field provide for 330 foot lease line and 660 foot between well spacing and 10 acre proration units. Field rules for the remainder of the applied-for fields provide for 467'/1200' spacing and 40 acre proration units.

JMM's plat for the Henry Heinrich Lease, Well No. 4R location shows a total of nine wells on the lease. Three of these, Well Nos. 2, 3, and 5 are disposal wells. Two others, Well Nos. 6 and 9 were dry holes when drilled and have been plugged and abandoned. Well Nos. 1 and 4 produced from the Aloe (Catahoula) Field, but are currently shut-in. Well No. 1 is more than 660 feet from the proposed location of Well No. 4R. JMM intends to plug Well No. 4, and it will not be produced concurrently with Well No. 4R. There are two wells on the lease currently producing from the Aloe (Catahoula) Field, Well Nos. 7 and 8. Well No. 8 is more than 660 feet from the proposed location of Well No. 4R. Well No. 7 is 528 feet from the proposed location of Well No. 4R. Well No. 4R will be produced concurrently with Well Nos. 7 and 8. There are no wells on the Henry Heinrich Lease that produce from any applied-for field other than the Aloe (Catahoula) Field.

JMM characterizes proposed Well No. 4R as a "replacement" for Well No. 4. Well No. 4, currently shut-in, is shown by JMM's plat to be about 95 feet southwest of the Well No. 4R location. This well once produced from the Aloe (Catahoula) Field, but according to JMM's interpretation of a workover report in the well file, a previous operator shut-in the well in 1998 because of a casing problem.[1] The Aloe (Catahoula) Field is JMM's primary objective. The location of the proposed well is regular to lease lines, and a Rule 37 exception is required only because proposed Well No. 4R is closer to Well No. 7 than allowed under field rules applicable to the Aloe (Catahoula) Field.

A structure map on the top of the Catahoula showed that the top of the structure on the Henry Heinrich Lease is near Well No. 7 and slopes down dip toward Well No. 4. The top of the Catahoula in Well No. 7 is at 2,488' subsea. The top in Well No. 4 is about 2,503' subsea. The Aloe (Catahoula) is a water drive reservoir. Although JMM is uncertain as to the depth of the oil-water contact in the field as a whole, the oil-water contact in Well No. 7 is at a depth of about 2,510'

[1] The examiners have officially noticed the Oil and Gas W-2/G-1 database that shows completion dates for Well Nos. 7 and 8 in 2008. Thus, Well No. 4 never produced concurrently with Well Nos. 7 and 8.

subsea. In picking a location for proposed Well No. 4R, JMM did not want to move down dip of Well No. 4, preferring instead to select a location to the northeast of Well No. 4 in the direction of Well No. 7. JMM estimated that the top of the Catahoula at the proposed Well No. 4R location is at a depth of about 2,503' to 2,505' subsea. Although Well No. 7 is high on structure, the rock quality at the location of Well No. 7 is not as good in terms of permeability as it is at the Well No. 4 location. Core data showed several feet of over 1,000 millidarcies of permeability in Well No. 4, whereas the highest permeability in Well No. 7 is in the range of 400 to 600 millidarcies. JMM concluded that the rock with the highest permeability on the Henry Heinrich Lease is on the flank of the structure. Assuming an oil-water contact of 2,510' subsea, the productive part of the reservoir is in the eastern half of the Henry Heinrich Lease and extends to the northeast of the lease, including the eastern half of the Horadam Bros. Lease.

An isopach map for the Aloe (Catahoula) reservoir showed that the thickest section of the Catahoula on the Henry Heinrich Lease is 48 feet in the area of Well Nos. 5 and 7. Well No. 4 has 26 feet, and JMM estimates that proposed Well No. 4R will have about 31 feet. According to the isopach map, JMM could have expected encountering less than 26 feet of the Catahoula if it had selected a location for Well No. 4R south of Well No. 4. This would have been further down dip, and in JMM's opinion, a riskier location.

Wells on the Henry Heinrich Lease have recovered about 200,000 BO from the Aloe (Catahoula) reservoir. About 100,000 BO has been recovered from this reservoir on the adjacent Horadam Bros. Lease, and to some extent, the reservoir already has been depleted. JMM believes there are remaining reserves in the reservoir to be recovered by proposed Well No. 4R, but has not calculated, and does not know, the amount of current recoverable reserves in the reservoir beneath the Henry Heinrich Lease. Well Nos. 7 and 8 are still producing on the lease, but Well No. 8 has been making mostly water and recently has been shut-in. JMM does not believe that Well No. 7 will recover remaining reserves that might be recovered by proposed Well No. 4R because the formation is tighter around the Well No. 7 location. According to JMM, there is no alternative location on the Henry Heinrich Lease on the flank of the structure that would be 660' from Well No. 7. In JMM's opinion, proposed Well No. 4R will not drain any Catahoula reserves from the Horadam Bros. Lease because it is too far away.

Horadam

Horadam was represented at the hearing, but did not present evidence other than through cross-examination of JMM's witness. Horadam's representative argued that JMM's application cannot be approved on a waste or confiscation theory in the absence of any evidence from JMM as to the current recoverable reserves in the Aloe (Catahoula) Field beneath the Henry Heinrich Lease. Horadam asserted that a location on the Henry Heinrich Lease 660' from Well No. 7 would be a reasonable location for an additional well in the Aloe (Catahoula) Field, and that JMM is not necessarily entitled to the "best" location for an additional well. Horadam argued that the Horadam Bros. Lease has reserves in the Aloe (Catahoula) Field, and although Horadam does not have an existing well producing from this reservoir, it may wish to rework an existing well to this reservoir

or drill a new well in the reservoir. Horadam believes that it is inconclusive from JMM's evidence as to whether JMM has already recovered, or can recover with existing wells, JMM's fair share of reserves from the reservoir.

EXAMINERS' OPINION

Although, JMM's structure and isopach maps show that the Aloe (Catahoula) Field extends beneath the eastern portion of Horadam's offset tract to the north of the Henry Heinrich Lease, the evidence shows that it is unlikely that the Horadam tract will be drained by the proposed well. The proposed well is regular to all lease lines, and the Horadam tract, at its closest point, is about 720' away from the location of proposed Well No. 4R. Field rules for the Aloe (Catahoula) Field assume that wells in the field will drain 10 acres, and the applicable lease line spacing rule is 330'. The Henry Heinrich Lease, Well No. 7 in this field lies between the proposed location of Well No. 4R and Horadam's offset tract to the north. Horadam does not presently have a well on its offset tract producing from the Aloe (Catahoula) Field. If the proposed well will compete with any existing well for reserves in this field, it will be with JMM's own Henry Heinrich Lease, Well No. 7.

The above notwithstanding, JMM's failed to prove the current recoverable reserves beneath the Henry Heinrich Lease in the Aloe (Catahoula) Field and/or the estimated remaining or ultimate recoveries of the existing wells in the field on this lease.[2] In the circumstances of this case, proof of current recoverable reserves is essential to a finding that the requested Rule 37 exception is necessary to enable JMM to recover its "fair share" and prevent confiscation. This proof is also essential to a finding that the requested exception is necessary because the proposed well will recover a "substantial amount" of reserves that would not be recovered by any existing well or additional wells at regular locations, which, along with "unusual conditions" is the test for approval of Rule 37 applications on a waste theory. Mr. Masterson testified that Well No. 8 has been producing 99% water, may have a mechanical problem, and was recently shut-in. He did not think Well No. 7 would recover the reserves that would be recovered by proposed Well No. 4R because permeability of rock in Well No. 7 is not as good as at the proposed location. Even if this testimony were deemed to prove that the existing wells will not recover any reserves that may be present at the proposed location, the examiners are without any basis to conclude that the existing wells will not enable JMM

to recover its "fair share" of reserves, or that failure to drill the proposed well will result in loss of

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[2] This current recoverable reserves issue was explored at the hearing:

"Q. (by Mr. Rhodes) With your isopach and structure map have you done any studies to determine original oil in place and how much remaining reserves that you may have to produce that are still in the Catahoula?

"A. (by Mr. Masterson) I've done some minimal work on it but I do not have it. I don't know. I cannot give you the remaining reserves in place. I haven't done an extensive study on that. I've done preliminary work, but no, I do not know. . . ."

a "substantial amount" of oil.

JMM did not sustain its burden to prove the requested exception is necessary to prevent confiscation or waste, and for this reason, the examiners are compelled to recommend denial of the application for a Rule 37 exception in the Aloe (Catahoula) Field. JMM is entitled to a regular drilling permit for the proposed well in the Aloe (2200), Horadam (2200 Miocene) and Wildcat Fields. Based on the record in this case, the examiners recommend adoption of the following Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

1. At least ten (10) days notice of this hearing was provided to operators, unleased mineral interest owners, and lessees of tracts having no designated operator, for all tracts adjacent to the Henry Heinrich Lease.

2. JMM Energy, LLC ("JMM") seeks a Rule 37 exception for the 146.5 acre Henry Heinrich Lease, Well No. 4R, in the Aloe (Catahoula) Field, Victoria County, Texas. JMM also seeks to permit Well No. 4R in the Aloe (2200), Horadam (2200 Miocene) and Wildcat Fields, where the location of the well is regular under the applicable field rules.

3. The JMM application is opposed by Henry Horadam ("Horadam"), an offset operator to the north of the Henry Heinrich Lease.

4. Field rules for the Aloe (Catahoula) Field provide for 330' lease line and 660' between well spacing and 10 acre proration units.

5. The proposed location of Well No. 4R is regular to lease lines, being 567 feet from the southeast line and 1,653 feet from the northeast line of the Henry Heinrich Lease.

6. A between well Rule 37 exception is required for Well No. 4R in the Aloe (Catahoula) Field because the proposed location of this well is 528 feet from the Henry Heinrich Lease, Well No. 7 in the same field.

7. There are four existing oil wells on Henry Heinrich Lease in the Aloe (Catahoula) Field. These are Well Nos. 1 and 4 that once produced from the field, but are now shut-in, and Wells Nos. 7 and 8 which are producing wells.

8. Well No. 4R is proposed as a replacement for Well No. 4 which in 1998 was shut-in by a previous operator after a casing problem was experienced during a workover. The proposed location of Well No. 4R is about 95 feet to the northeast of Well No. 4.

9. The Henry Heinrich Lease Well Nos. 7 and 8 were drilled after Well No. 4 was shut-in, and Well No. 4 did not produce concurrently with Well Nos. 7 and 8.

10. JMM plans to plug Well No. 4 on the Henry Heinrich Lease, and this well will not be produced concurrently with proposed Well No. 4R.

11. The Aloe (Catahoula) Field is JMM's primary objective for proposed Well No. 4R.

12. The Aloe (Catahoula) Field is a water drive reservoir. The oil-water contact in the Henry Heinrich Lease, Well No. 7 is at a depth of 2,510' subsea.

13. Well No. 7 is near the top of the Catahoula on the Henry Heinrich Lease at a depth of 2,488' subsea.

14. The top of the Catahoula in Well No. 4 is at a depth of about 2,503' subsea.

15. JMM estimates that the top of the Catahoula in proposed Well No. 4R will be at a depth of about 2,503' to 2,505'.

16. Of wells on the Henry Heinrich Lease, Well No. 7 has the thickest section of the Catahoula which is about 48 feet of sand. The proposed Well No. 4R location is expected to have about 31 feet of sand.

17. In picking a location for proposed Well No. 4R, JMM wanted to move updip from the Well No. 4 location toward Well No. 7. A location south of Well No. 4 would be down dip closer to the oil-water contact and would encounter a lesser amount of sand.

18. Although Well No. 7 has the thickest section of the Catahoula on the Henry Heinrich Lease, rock quality at the Well No. 7 location is not as good in terms of permeability as it is on the flank of the structure in the area of the proposed Well No. 4R location. Core data from Well No. 4, about 95' southwest of the Well No. 4R location, showed several feet of reservoir rock with a permeability of over 1,000 millidarcies, whereas the highest permeability at the Well No. 7 location is in the range of 400 to 600 millidarcies.

19. Cumulative recovery from the Aloe (Catahoula) Field on the Henry Heinrich Lease is about 200,000 BO. JMM believes there are remaining reserves in this reservoir to be recovered by Well No. 7 and by proposed Well No. 4R.

20. Well No. 8 on the Henry Heinrich Lease has been producing 99% water and recently has been shut-in.

21. It is not likely that a well at the proposed location would drain reserves in the Aloe (Catahoula) Field from Horadam's offset lease to the north of the Henry Heinrich Lease.

22. JMM did not establish the amount of current recoverable reserves in the Aloe (Catahoula)

Field beneath the Henry Heinrich Lease, the estimated remaining recoveries from the reservoir of existing Well Nos. 7 or 8, or the estimated ultimate recoveries of Well Nos. 7 or 8.

CONCLUSIONS OF LAW

1. Proper notice of hearing was timely issued by the Railroad Commission to appropriate persons legally entitled to notice.

2. All things necessary to the Commission attaining jurisdiction over the subject matter and the parties in this hearing have been performed.

3. In the circumstances of this case, proof of the amount of current recoverable reserves in the Aloe (Catahoula) Field beneath the Henry Heinrich Lease, and estimated remaining recoveries of existing wells on the lease in this field, is essential to a finding that a Rule 37 exception is necessary to enable JMM Energy, LLC to recover its fair share of hydrocarbons and prevent confiscation.

4. In the circumstances of this case, proof of the amount of current recoverable reserves in the Aloe (Catahoula) Field beneath the Henry Heinrich Lease, and estimated remaining recoveries of existing wells on the lease in this field, is essential to a finding that a Rule 37 exception is necessary to enable JMM Energy, LLC to recover a substantial amount of hydrocarbons that would not be recovered by any existing well or additional wells drilled at regular locations.

5. JMM Energy, LLC did not prove that the granting of a Rule 37 exception for its proposed Henry Heinrich Lease, Well No. 4R in the Aloe (Catahoula) Field is necessary to protect correlative rights and prevent confiscation.

6. JMM Energy, LLC did not prove that the granting of a Rule 37 exception for its proposed Henry Heinrich Lease, Well No. 4R in the Aloe (Catahoula) Field is necessary to prevent the waste of hydrocarbons.

7. JMM Energy, LLC is entitled to a regular drilling permit for the Henry Heinrich Lease, Well No. 4R in the Aloe (2200), Horadam (2200 Miocene), and Wildcat Fields.

RECOMMENDATION

The examiners recommend that the Rule 37 exception requested by JMM Energy, LLC for the Henry Heinrich Lease, Well No. 4R in the Aloe (Catahoula) Field, Victoria County, Texas, be

denied. JMM is entitled to a regular permit for Well No. 4R in the Aloe (2200), Horadam (2200 Miocene), and Wildcat Fields.

Respectfully submitted,

James M. Doherty
Hearings Examiner

Donna Chandler
Technical Examiner