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BEFORE THE OIL CONSERVATION COMMISSION
OIL CONSERVATION DIVISION
ENERGY AND MINERALS DEPARTMENT
STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

IN THE MATTER OF:

Application of Monsanto Company for
an unorthodox gas well location,
dual completion, and simultaneous
dedication, Eddy County, New Mexico.

CASE 8758

ENTRY OF APPEARANCE

Please enter the appearance of the New Mexico Commissioner of Public Lands, Jim Baca, as a party of record in the above-entitled hearing de novo.

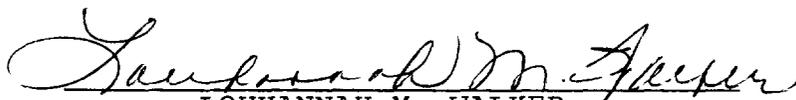
Oil and gas lands owned by the State of New Mexico are involved in the proceeding and may or may not be adversely affected by the Commission's decision in the matter.



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Special Assistant Attorney General
Attorney for Jim Baca
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CERTIFICATE OF MAILING

I hereby certify that on March 21, 1986, I mailed a copy of the foregoing Entry of Appearance to Owen M. Lopez, Attorney at Law, Hinkle Law Firm, P.O. Box 2068, Santa Fe, New Mexico 87501, and to William F. Carr, Attorney at Law, Campbell & Black, P.A., P.O. Box 2208, Santa Fe, New Mexico 87501.



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April 16, 1986

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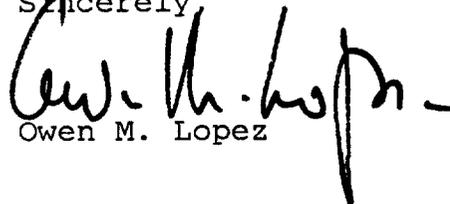
Re: Application of Monsanto Oil Company for an
Unorthodox Gas Well Location and Dual Completion,
Case No. 8758 De Novo, Order No. R-8162-A

Dear Mr. Stamets:

Please find enclosed our Brief in Support of our proposed Order which is also enclosed. We have not addressed in the brief the question of penalty with respect to potential Morrow production for reasons that are self-explanatory. Our position with respect to the Morrow production is covered in our proposed Order. We followed the same course with respect to dual completion application.

Thank you for consideration of the matters enclosed.

Sincerely,


Owen M. Lopez

OML/mg
Enclosures

APR 1 1988

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION
OIL CONSERVATION DIVISION

APPLICATION OF MONSANTO OIL
COMPANY FOR AN UNORTHODOX GAS
WELL LOCATION AND DUAL
COMPLETION, EDDY COUNTY,
NEW MEXICO

Case No. 8758 DE NOVOBRIEF OF MONSANTO OIL COMPANYI. INTRODUCTION

Monsanto Oil Company (Monsanto) has applied for an unorthodox well location 330 feet from the South and West lines of Section 36, T21S, R23E, N.M.P.M., Indian Basin-Upper Pennsylvanian Gas Pool, Eddy County, New Mexico (Indian Basin) for the purpose of drilling a replacement well for its Lowe State No. 1 well. This case was originally heard at an Examiner hearing on November 21, 1985. The Division granted Monsanto's request for an unorthodox location, but assessed a penalty on the well's allowable of 64%. Monsanto timely filed an application for a hearing de novo, which was heard before the Commission on April 9, 1986. The Commissioner of Public Lands (the State), as royalty owner under Section 36, entered its appearance in support of Monsanto's application and requested a penalty no greater than 37%. Amoco Production Company (Amoco), as the offset operator in Section 35, continued its opposition at the de novo hearing, but requested a penalty of 87%, up from the 64% it had requested at the Examiner hearing.

II. ARGUMENT

A. Obligation to Drill Replacement Well.

It is undisputed that Monsanto is entitled to seek approval for an unorthodox well location. OCD Rules 104(F), (G). See, N.M. Stat. Ann. Sec. 70-2-17(A) (OCD rules shall afford an owner of property the opportunity to produce his just share of gas underlying his property). It is also undisputed that Monsanto has selected the most suitable location to recover the remaining hydrocarbons under Section 36. In fact, Monsanto is obligated to seek approval for the unorthodox location in order to protect the lessor's interest. Amoco Production Co. v. Alexander, 622 S.W.2d 563 (Tex. 1981).

In Alexander, which is as analogous as any case likely to be found, the Texas Supreme Court held that Amoco breached its duties as a prudent operator by failing to seek a Rule 37 exception (Texas' name for an unorthodox well location request) in a pool that was known to be homogeneous and where the hydrocarbons were known to migrate updip due to water encroachment. In that case, the Court made Amoco pay considerable damages to the Alexanders, the royalty owners, because Amoco failed to drill replacement wells for wells which had watered out downdip within the same pro-ration unit. Monsanto's position in this case is no

different than that of Amoco in Alexander. ^{1/} There is no argument that the Indian Basin is a common, homogeneous reservoir with an east-west updip trend and that the gas reserves are known to migrate updip due to water encroachment downdip. If the unorthodox location is not granted, Monsanto will be deprived of its right to recover hydrocarbons under its property in violation of statute.

As a result, the only issue before the Commission is the nature and extent of the penalty to be assigned the proposed well ^{2/} so as to offset any advantage gained over Amoco as a result of the unorthodox location. Rule 104(G).

B. Matters to be Considered by the Commission in Assessing a Penalty.

When deciding an application for an unorthodox well location, the Commission must prevent waste and protect correlative rights. N.M.Stat. Ann. Sec. 70-2-11 (1978). In

1 The only possible distinguishing factor in the Alexander case is that Amoco owned other leases updip in the reservoir and had the opportunity to gain significant benefits updip by not drilling unorthodox wells downdip. The benefits were attributable to lower royalty rates updip. This distinction has no material bearing on the obligation to seek administrative exception to general rules in order to capture one's hydrocarbons before they migrate off-lease, updip. (A copy of the opinion is attached hereto as Exhibit A for reference.)

2 The Indian Basin is a prorated gas pool, Commission Order No. R-1670-F, and therefore the penalty would apply against the well's allowable as determined by the proration schedules, whether the penalty is determined by an acreage factor, some other factor, or a combination of various factors.

protecting correlative rights, the Commission must consider both the correlative rights of the applicant and those of the protesting party. Chevron Oil Co. v. Oil and Gas Conservation Comm'n, 435 P.2d 781 (Mont. 1967). In determining a production limitation factor to protect correlative rights, the Commission must consider all factors involved in production from the unorthodox location. Id.; Mobil Oil Corp. v. Gill, 194 So.2d 351 (La.App. 1966), writ denied, 250 La. 174, 194 So.2d 738 (1967). Some of the factors to be considered are: structure 3/; permeability 3/; remaining reserves in relation to initial reserves 4/; productive acreage in the unit 4/; water encroachment 5/; potential of the well 6/; percentage of the effective porosity 6/; acre-feet of productive sand 7/; and economics 8/. This is only a partial listing of factors which may be considered. N.M.Stat. Ann. Sec. 70-2-16(C) (1978), which establishes the

3 Imperial American Resources Fund, Inc. v. Railroad Comm'n of Texas, 557 S.W.2d 280 (Tex. 1970).

4 Corporation Comm'n v. Union Oil Co. of California, 591 P.2d 711 (Okla. 1979).

5 See, Amoco Production Co. v. Alexander, 622 S.W.2d 563 (Tex. 1981).

6 See, Anderson-Prichard Oil Corp. v. Corporation Comm'n, 207 Okla. 686, 252 P.2d 450 (1953).

7 Pickens v. Railroad Comm'n, 387 S.W.2d 35 (Tex. 1965).

8 Pattie v. Oil and Gas Conservation Comm'n, 145 Mont. 531, 402 P.2d 596 (1965).

Commission's authority to set production allowables, states:

. . . In protecting correlative rights the division may give equitable consideration to acreage, pressure, open flow, porosity, permeability, deliverability and quality of the gas and to such other pertinent factors as may from time to time exist, and insofar as is practicable, shall prevent drainage between producing tracts in a pool which is not equalized by counterdrainage. (emphasis added).

Since the decision in this case will set a production allowable, the Commission should consider all relevant factors which have been brought to its attention. Chevron Oil Co. v. Oil and Gas Conservation Comm'n, 435 P.2d 781 (Mont. 1967).

Furthermore, in considering all the relevant factors, the Commission must arrive at an equitable decision which protects all parties. See N.M.Stat. Ann. Sec. 70-2-16(C) (1978); Osborn v. Texas Oil and Gas Corp., 661 P.2d 711 (Okla.App. 1982); Pattie v. Oil & Gas Corp. Comm'n, 145 Mont. 531, 402 P.2d 596 (1965). The decision must, of course, protect the objecting offset owner. However, it must not penalize the applicant to such an extent that it is uneconomical to drill the well. GMC Oil & Gas Co. v. Texas Oil & Gas Corp., 586 P.2d 731 (Okla. 1978). It is not the purpose of the penalty to punish a producer for acting as a prudent operator by drilling a well at a location chosen to most efficiently capture the remaining reserves under the unit, particularly when in so doing he protects the correlative rights of the royalty owner and other working

interest owners. 9/

A mineral owner should not be prevented from producing his fair share of recoverable gas in the reservoir. Sinclair Oil & Gas Co. v. Corporation Comm'n, 378 P.2d 847 (Okla. 1963). Moreover, denial of an unorthodox location is improper where, as a result, wells on adjoining tracts will drain the tract for which the unorthodox location is sought. Marathon Oil Co. v. Pan American Petroleum Corp., 473 P.2d 575 (Wyo. 1978); Imperial American Resources Fund, Inc. v. Railroad Comm'n of Texas, 557 S.W.2d 280 (Tex. 1977). See, Continental Oil Co. v. Oil Conservation Comm'n, 70 N.M. 310, 373 P.2d 809 (1962). The underlying rationale of this legal principle is that the reserves that would have been recovered at the unorthodox location will be drained by

9 Assuming 640 acre radial drainage, there is no dispute that significant reserves will be wasted if no well is drilled in the vicinity of the proposed Monsanto well (see State's Exhibit No. 3). Prevention of waste is paramount to protection of correlative rights. Continental Oil Co. v. Oil Conservation Comm'n, 70 N.M. 310, 373 P.2d 809 (1962). Thus, considerations regarding waste may override correlative rights, and permit production which results in uncompensated drainage. Texaco, Inc. v. Railroad Comm'n, 583 S.W.2d 307 (Tex. 1979).

Although this perfectly legitimate argument exists and was never contested by Amoco during the course of the hearing, Monsanto contends the principal issue to be addressed is the one of correlative rights. There is little doubt that Amoco's updip well in Section 35 and Monsanto's updip well in Section 2 immediately to the south will eventually drain most of the so-called wasted gas as it migrates updip off-lease and as the water continues to encroach.

offsetting wells, which constitutes a confiscation of property.

C. Penalty Based on Monsanto's Evidence

When considering the competent evidence presented at the Commission hearing, Monsanto's position is that the Commission would be properly exercising sound discretion if it were to assign a penalty of 25%. Clearly the thrust of Monsanto's evidence is that the Indian Basin is a homogeneous gas reservoir with defined limits, extending updip on an east-west axis; that the reservoir was developed during the mid-1960's and that as of January 1, 1975, all the wells surrounding the subject unit (excepting those clearly demonstrated to be on the fringe of the reservoir to the north) had produced 11 to 12 billion cubic feet of gas, indicating comparable production potentials and producing capabilities; that progressive water encroachment is occurring from the northeast and is moving updip; that if replacement wells are not drilled updip from wells which have watered out, the remaining gas underlying the reservoir cannot be fully recovered and will migrate updip as updip wells continue to be produced; that there are approximately 430 productive acres remaining in Section 36; and that the likelihood of a downdip well draining updip gas is minimal. Consequently, based on the geologic and engineering testimony of Monsanto's witnesses, Bill Morris and Jesse Roberts, the conclusion is inescapable that Monsanto will

gain no real advantage over Amoco if it drills at the proposed location. An essential finding of the Commission before it assigns a penalty is a determination of the advantage gained. Rule 104(G) reads as follows:

"Whenever an exception is granted, the Division may take such action as will offset any advantage which the person securing the exception may obtain over other producers by reason of the unorthodox location." (emphasis added).

It has been held that the Commission is not required to reduce an allowable when an unorthodox location is granted. Sohio Petroleum Co. v. Parker, 319 P.2d 305 (Okla. 1957).

Moreover, it is important to remember that Rule 104(G), in addition to requiring the Commission to determine the advantage obtained by the operator at the unorthodox location, also requires the Commission to weigh that advantage as it affects other producers. Amoco is the only offset operator to object to the proposed location. Arco, the direct offset operator to the South in Section 1, although notified of the original hearing in this case on November 21, 1985, did not object then nor does it now. Conoco, the other working interest owner in the well operated by Monsanto in Section 2, a southwest offset, again having been directly notified, has yet to enter an appearance or object.

It is difficult to imagine that the Commission would impose a penalty on the proposed well had waivers been received from all the direct offset operators. This conclusion is reached on the basis of the Rule of Capture if

for no other reason. The same logic is inescapable when the Commission considers the "advantage . . . over other producers" in this case. Therefore, only the effect on Amoco should be considered by the Commission. The effect on Arco or Conoco, if any, should be disregarded.

Based on the fact that a well at the proposed location would have little drainage effect on Amoco's well in Section 35, and based on the fact that only one of three direct offset operators has objected to the proposed location, Monsanto contends that a penalty greater than 25% is unfounded.

D. Penalty Based on Radial Drainage.

Assuming 640 acre radial drainage, the State's expert witness, Dr. Ernest Szabo, accurately set forth the net acreage effect the proposed well's overlap will have on offset acreage (State's Exhibit 4). The worst case, including a 24.3% effect on Monsanto's well in Section 2, provides a 30% maximum penalty. The more proper measure for a penalty would be the actual advantage obtained only over Amoco as a result of the unorthodox location, which was shown to be 4.5%.

E. Penalties Based on Volumetric and Material Balance Calculations

The State's final witness, Bruce Stockton, showed by his volumetric calculations of the original reserves in

place ¹⁰/ that Monsanto has approximately 7.88 billion cubic feet (bcf) of remaining reserves and that Amoco has approximately 9.97 bcf remaining. Assuming that Monsanto's proposed well by virtue of its position can logically drain no more than one-fourth of Amoco's remaining reserves or 2.49 bcf ¹¹/, he suggests a penalty based on the respective advantage of such drainage as compared to the expected recovery of Monsanto's proposed well of 19.82 bcf. Accordingly, Mr. Stockton recommended a penalty of 12.6%, or 2.49 bcf divided by 19.82 bcf.

Utilizing material balance calculations, and employing the same logic, Mr. Stockton estimates that Monsanto's proposed well can expect to recover 14.14 bcf. He estimates the remaining reserves of Amoco's well to be 20.83 bcf. Again, applying the same formula, the Monsanto well will not recover more than one-fourth of Amoco's remaining reserves, or 5.21 bcf. 5.21 bcf divided by 14.14 bcf equals 36.8%, which he recommends as the maximum penalty factor.

10 Mr. Stockton's volumetric calculations and material balance calculations were of the original reserves in place and not of the reserves as they exist today because, as he explained, there is insufficient contemporaneous data to make present day estimates reliable.¹²

11 To more fully explain, imagine that the proposed well were drilled on the very point where Sections 36, 35, 2 and 1 intersect. The maximum the well could drain from any section would be one-fourth of the remaining reserves in any section. One-fourth of Amoco's remaining reserves is 2.49 bcf.

F. Amoco's Ill-Advised Reliance on Order No. R-8025-A.

Amoco did not dispute Monsanto's substantive evidence with respect to water encroachment and Monsanto's estimate of remaining productive acreage at the original hearing in this case. Rather, Amoco apparently relied on the Commission's penalty formula set forth in Order No. R-8025-A, where Yates Petroleum Corporation sought relief analogous to that sought by Monsanto. At the hearing de novo, Amoco again relied on the Commission's algebraic penalty formula. In addition, however, Amoco adopted Monsanto's structure map as its own, but then drew the boundary of water encroachment, disregarding Monsanto's contour lines, so that the resultant penalty exactly corresponded with the penalty resulting from the formula, or 64%. Amoco states that the net productive acreage result is purely coincidental and offers no other explanation.

Monsanto contends that Amoco's reliance on the Commission's penalty formula is misplaced for two reasons. First, paragraph 17 of Order No. R-8025-A states that the Commission utilizes the penalty formula "when there is inadequate geological and/or engineering evidence presented at hearing upon which to base a penalty . . . ". Monsanto and the State believe that ample geologic and engineering evidence has been presented on which the Commission can formulate a penalty in the sound exercise of its discretion. Furthermore, since devising a production limitation factor is equitable in nature, see N.M.Stat. Ann. Sec. 20-2-16(C)

(1978), a precise mathematical formula is not required. Mobil Oil Corp. v. Gill, 194 So.2d 351 (La.App. 1966), writ denied, 250 La. 174, 194 So.2d 738 (1967). Moreover, much of the evidence in the record, both substantive and theoretical, Amoco failed to dispute. For example, Amoco did not dispute Dr. Szabo's planimetering with respect to net acreage overlap by the proposed well. Nor did Amoco object to the conclusions reached by Mr. Stockton as a result of his material balance and volumetric calculations.

Second, there is no justification in the record for application of the penalty prescribed in Order No. R-8025-A to this case, nor, it is contended, can any be given.

Initially, it should be observed that the production penalty formula's addition of square feet to linear feet is mathematically unsound. The formula's failure, however, to accomplish its fundamental purpose, i.e., to offset the advantage over other producers gained by the unorthodox well location, is even more objectionable than its mathematical inaccuracy. The State's Exhibit No. 9 shows dramatically that the formula is vulnerable to calculated manipulation by unorthodox location applicants, and that the formula renders inconsistent results that have no correlation to whatever advantage might be gained over other producers by the unorthodox location.

The formula is legally flawed because it includes a percentage deviation from standard location factor that presumes the superiority of the standard location over the

unorthodox location and correlates the magnitude of the production penalty with the distance the unorthodox location varies from the standard location. In fact, unorthodox locations are granted because they more effectively prevent waste or protect correlative rights than would a standard location. In such a situation it cannot be presumed that the standard location is the preferable location.

The only purpose of a production penalty is to offset any advantage the unorthodox location obtains over other producers. The production penalty should, therefore, be based on factors that accurately reflect that advantage. The degree of variation from the standard location does not necessarily reflect such advantage. See State Exhibit No. 9. Instead, the percentage deviation from standard location factor penalizes production from an unorthodox well in direct proportion to the well's degree of variation from the standard location, without taking into account geologic and engineering evidence. The inclusion of the percentage deviation from standard location factor in the production penalty formula thus transforms a Commission action that is intended to protect correlative rights into a measure that punishes operators for obtaining unorthodox locations.

Additionally, as has been discussed above, any formula which takes into account overlapping of acreage owned by offset operators who have raised no objection cannot be justified. If it were otherwise, the Rule of Capture would be abrogated and the Commission would be burdened in every

case involving correlative rights with the rights of those not present and accounted for.

Finally, the formula is contrary to statutory law and legal principles which afford a mineral owner the right to recover his equitable share of the hydrocarbons underlying his tract. See, Sinclair Oil & Gas Co. V. Corporation Comm'n, 378 P.2d 847 (Okla. 1963). The penalty urged by Amoco totally disregards all the other evidence in the case, both substantive and theoretical, and is arbitrary and capricious.

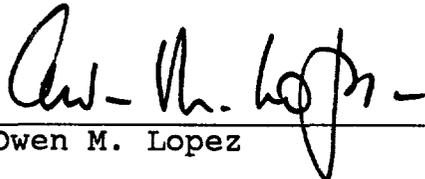
III. CONCLUSION

In summary, the Commission is required to exercise its discretion in setting a penalty which will offset any advantage gained over Amoco by Monsanto's proposed well. In so doing, the Commission should carefully weigh all the evidence before it because there is no magic formula to be applied. The Commission is charged with exercising its discretion, reasonably weighing the competing equities in reaching its decision. Besides the various points discussed above, the Commission should be cognizant that there is high risk associated in drilling anywhere on Section 36 due to the proven water encroachment. Moreover, the present depressed gas market conditions are not unknown to the Commission. Monsanto and the State contend that a penalty of 25% would be fair and reasonable to offset any advantage gained by Monsanto at Amoco's expense. Monsanto and the

State further contend that any penalty in excess of 37%, the maximum penalty indicated by considering all the evidence, would be arbitrary and capricious and would violate the correlative rights of Monsanto and the State.

Respectfully submitted,

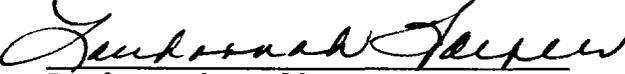
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reformed and affirmed, and appeal was again taken. The Supreme Court, Campbell, J., held that: (1) oil and gas lessee's covenant to protect from drainage is not limited to local drainage but extends to field-wide drainage; (2) a lessor is entitled to recover damages from a lessee for field-wide drainage upon proof of substantial drainage of the lessor's land and that a reasonably prudent operator would have acted to prevent substantial drainage from the lessor's land; (3) reasonably prudent operator standard was not to be reduced with respect to lessors because lessees had other lessors in same field; (4) error, if any, in admission of expert testimony that Railroad Commission would have granted approval to drill replacement wells did not amount to such denial of lessor's rights as to probably cause rendition of improper judgment; and (5) a breach of implied covenant to protect against drainage is action sounding in contract and will not support recovery of exemplary damages absent proof of independent tort.

Modified and affirmed.

1. Mines and Minerals ⇌ 78.1(11)

An oil and gas lessee has an implied obligation to protect from local drainage.

2. Mines and Minerals ⇌ 73.1(5)

Implied covenants in oil and gas leases are to develop the premises, to protect the leasehold, and to manage and administer the lease.

3. Mines and Minerals ⇌ 73.1(5)

Standard of care in testing performance of implied covenants by oil and gas lessees is that of reasonably prudent operator under same or similar facts and circumstances.

4. Mines and Minerals ⇌ 73.1(5)

Reasonably prudent operator concept is essential part of every implied covenant in oil and gas leases.

5. Mines and Minerals ⇌ 73(1)

Every claim of improper operation by a lessor against an oil and gas lessee should

be tested against the general duty of the lessee to conduct operations as a reasonably prudent operator in order to carry out the purposes of the oil and gas lease.

6. Mines and Minerals ⇌ 78.1(11)

Implied covenant to protect against drainage is part of broad implied covenant under oil and gas lease to protect leasehold.

7. Mines and Minerals ⇌ 78.1(11)

Oil and gas lessee's implied covenant to protect from drainage is not limited to local drainage, but extends to field-wide drainage.

8. Mines and Minerals ⇌ 78.1(11)

A lessor is entitled to recover damages from a lessee for field-wide drainage upon proof of substantial drainage of the lessor's land and that a reasonably prudent operator would have acted to prevent substantial drainage from the lessor's land; lessee must perform any act which a reasonably prudent operator would perform to protect from substantial drainage.

9. Mines and Minerals ⇌ 78.1(11)

Duties of reasonably prudent operators to protect from field-wide drainage may include drilling replacement wells, reworking existing wells, drilling additional wells, seeking field-wide regulatory action, seeking Rule 37 exceptions from Railroad Commission, seeking voluntary unitization, and seeking other available administrative relief.

10. Mines and Minerals ⇌ 78.1(11)

Reasonably prudent operator has no duty to protect from field-wide drainage unless such amount of oil can be recovered to equal cost of administrative expenses, drilling or reworking and equipping a protection well, producing and marketing the oil, and yield to the lessee a reasonable expectation of profit.

11. Mines and Minerals ⇐78.1(11)

Reasonably prudent operator standard was not to be reduced to royalty owners with respect to field-wide drainage because operator had other lessors in same field, and operator's status as common lessee did not affect its liability to royalty owners.

12. Mines and Minerals ⇐78.1(1)

Oil well lessee owed royalty owners duty to do whatever reasonably prudent operator would do if royalty owners were lessee's only lessor in field, including duty to seek administrative relief from regulations limiting drilling and production of wells.

13. Mines and Minerals ⇐78.1(11)

Oil and gas lessee need not seek exceptions to regulations limiting drilling and production of wells in every case of field-wide drainage; rather, jury can determine from evidence justifying Railroad Commission's granting or denying permit allowing exception whether a reasonably prudent operator would have applied for permit.

14. Appeal and Error ⇐1170.7

Error, if any, in admission of expert testimony that Railroad Commission would have granted approval to oil well operator to drill replacement wells did not amount to such denial of operator's rights as was reasonably calculated to cause and probably did cause rendition of improper judgment, where answers were cumulative to other evidence presented to jury. Rules of Civil Procedure, Rules 434, 503.

15. Mines and Minerals ⇐78.1(11)

Oil and gas lessee's implied covenant to protect against drainage is a part of lease and is contractual in nature.

16. Damages ⇐89(2)

Exemplary damages are not allowed for breach of contract.

17. Damages ⇐89(2)

Even if breach of contract is malicious, intentional or capricious, exemplary dam-

ages may not be recovered unless a distinct tort is alleged and proved.

18. Mines and Minerals ⇐78.7(6)

Breach of oil and gas lessee's implied covenant to protect against drainage is action sounding in contract and will not support recovery of exemplary damages absent proof of independent tort.

19. Mines and Minerals ⇐73.1(2)

A royalty or royalty interest, whether created by grant or reservation or by lease, is an interest in real property and is a fee simple interest in land.

McGinnis, Lochridge & Kilgore, Robert C. McGinnis and John W. Stayton, Jr., Austin, Dean J. Capp and James D. Klutz, Houston, for petitioners.

Scott & Douglass, Frank Douglass and Tom Reavley, Jr., Austin, Leland B. Kee, Angleton, for respondents.

CAMPBELL, Justice.

This is an action by royalty owners for damages because of field-wide drainage. The trial court, after a jury verdict, rendered judgment for the Alexanders, lessors, for actual and exemplary damages against Amoco, lessee. The Court of Civil Appeals reformed the trial court's judgment and affirmed the judgment as reformed. 594 S.W.2d 467. We modify the judgment of the Court of Civil Appeals and affirm the judgment as modified.

The Hastings, West Field, in Brazoria County, is a water-drive field. Water and oil are in the same reservoir. Because water is heavier than oil, the water moves to the bottom of the reservoir driving the oil upward. As oil is removed, water moves up to fill the space.

As the oil is produced, the oil-water contact (a measure of the reservoir water level) gradually rises until the wells begin to pro-

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duce water along with oil. As the wells are produced, the fluid from the wells contains increasingly higher percentages of water. When the wells produce almost all water, the wells are abandoned. The wells are then said to be "watered out" or "flooded out."

The Hastings, West Field, reservoir is not horizontal. It is highest (closer to the surface) in the southeast part. It is lowest in the northwest. Hence, the reservoir dips downward gradually from the southeast to the northwest. Leases on the higher part of the reservoir are called "updip leases" and on the lower, "downdip leases." The Alexanders' leases with Amoco are downdip. Amoco, with 80% of the field production, also has updip leases. Exxon, Amoco's chief competitor in the field, owns leases generally updip from the Alexanders and downdip from the remainder of the Amoco leases.

In water-drive fields, such as the Hastings, West Field, natural underground conditions and production of oil updip work to the disadvantage of downdip leases. As the oil is produced, the oil-water contact rises. The greater the production from updip leases, the sooner the wells on downdip leases will be "watered out" because of the water-drive pushing the oil to the highest part of the reservoir. The downdip leases, therefore, are the first to water out. Moreover, production anywhere in the field will cause the oil-water contact to rise and move from the downdip leases to the updip leases. This is field-wide drainage.

The Alexanders' theory of this lawsuit is that Amoco slowed its production on the Alexander-Amoco downdip leases and increased production on Amoco updip leases causing the Alexander-Amoco downdip leases to "water out" much sooner. Oil not produced from the Alexander leases will eventually be recovered by Amoco as the water pushes the oil to the Amoco updip leases. Their theory of liability is that Amoco owed the Alexanders an obligation to obtain additional oil production from the Alexander leases by drilling additional wells and reworking existing wells to increase

production. If Amoco had fulfilled that obligation, additional oil would have been produced from which the Alexanders would have been paid 1/6th royalty. The Amoco updip leases pay 1/8th royalty.

The Alexanders contend they pleaded two legal theories of recovery: (1) in contract, breach of Amoco by its implied obligation to take such steps as a reasonably prudent operator would have taken to protect the Alexander leases from drainage; and (2) in tort; for "intentional acts and omissions" undertaken by Amoco "for the purpose of increasing Amoco's production from its updip leases" and the deliberate waste of the Alexanders' royalty oil. The jury found:

- (1) Amoco failed to operate the Alexander leases as a reasonably prudent operator.
- (2) Amoco operated its leases under an intentional policy of maximizing its profits by producing less oil from the Alexander leases than would have been produced by a reasonably prudent operator, while increasing the drainage of oil from the Alexander leases by Amoco production on other leases.

The jury awarded actual and exemplary damages.

We must determine whether:

- (1) Amoco had a duty to protect from field-wide drainage, or a duty not to drain the Alexander downdip leases by its operations updip.
- (2) Amoco had a legal duty under the Alexander leases to apply to the Railroad Commission for permits to drill additional wells at irregular locations, to obtain the permits, and drill the wells.
- (3) The trial court erred in admitting testimony that the Railroad Commission would have granted exception permits to allow Amoco to drill additional wells on the Alexander leases.
- (4) The Alexanders are entitled to recover exemplary damages.

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FIELD-WIDE DRAINAGE

Whether Amoco had a duty to protect the Alexander downdip leases from field-wide drainage, or a duty not to drain the leases by its updip operations has not been considered by the Texas courts. The Court of Civil Appeals held Amoco had a duty to protect the Alexanders from field-wide drainage.

[1] An oil and gas lessee has an implied obligation to protect from local drainage. Local drainage is oil migration from under one lease to the well bore of a producing well on an adjacent lease. Local drainage depends upon production from wells in a specific area in a field. It will begin, increase, or decrease according to production. Local drainage may be in several directions in one field and can be prevented by drilling offset wells. Field-wide drainage in a water-drive field, however, is relatively independent of the location of particular wells. It depends on the water-drive and production from all wells in the field. Protecting from field-wide drainage, therefore, is more difficult than protecting from local drainage.

Amoco urges the Court of Civil Appeals correctly held the drainage in this case was field-wide but the court erred in holding the law imposes an obligation upon Amoco to prevent field-wide drainage, or an obligation not to drain the Alexander leases by its updip operations. Amoco recognizes the obligation to protect from local drainage, but states the Court of Civil Appeals was in error in extending that obligation to require a lessee to protect his lessor from field-wide drainage. Amoco argues this imposes a new implied obligation never previously held to exist.

Has the Court of Civil Appeals imposed a new obligation never previously held to ex-

1. Professor Hemingway has summarized the major implied covenants as follows:

- (A) Implied covenants to develop the leases.
 - (1) To drill in initial well.
 - (2) To reasonably develop the lease after production has been acquired.
- (B) Implied covenants of protection.
 - (1) To protect against drainage.
 - (2) Not to depreciate the lessor's interest.

ist? The terms "obligation," "duty," and "covenant" have been used interchangeably in oil and gas cases to describe the performance required of a lessee under an oil and gas lease. Traditionally, matters relating to the development of the lease and the protection of the lessor's interest are not expressly included in the written lease. Since the early history of oil and gas litigation, the courts have held that covenants are implied when an oil and gas lease fails to express the lessee's obligation to develop and to protect the lease. In recent years, implied covenants have been expanded to matters of management of the lease. The words "duty" or "obligation" are best used to express the requirements of a lessee in performance of the implied covenants.

[2] Commentators differ on the classification of implied covenants in oil and gas leases. See R. Hemingway, *The Law of Oil and Gas* § 8.1 (1971); 5 E. Kuntz, a *Treatise on the Law of Oil and Gas* § 55.1 (1978); 5 H. Williams & C. Meyers, *Oil and Gas Law* § 804 (1980); Walker, *The Nature of the Property Interests Created by An Oil and Gas Lease in Texas*, 11 *Texas L.Rev.* 399 (1933). These covenants are usually grouped into categories according to the factual basis of the dispute between the lessor and lessee. 5 H. Williams & C. Meyers, *Oil and Gas Law* § 804 (1980). However, these categories are specific applications of three broad implied covenants to particular controversies. These broad implied covenants are: (1) to develop the premises, (2) to protect the leasehold, and (3) to manage and administer the lease.¹

[3-5] The standard of care in testing the performance of implied covenants by lessees is that of a reasonably prudent operator under the same or similar facts and

(C) Implied covenants relating to management and administration of the lease.

- (1) To produce and market.
- (2) To operate with reasonable care.
- (3) To use successful modern methods of production and development.
- (4) To seek favorable administration action. R. Hemingway, *The Law of Oil and Gas* § 8.1. (1971).

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circumstances. *Shell Oil Co. v. Stansbury*, 410 S.W.2d 187, 188 (Tex.1966); *Texas Pac. Coal & Oil Co. v. Barker*, 117 Tex. 418, 431-32, 6 S.W.2d 1031, 1035-36 (1928). The reasonably prudent operator concept is an essential part of every implied covenant. Every claim of improper operation by a lessor against a lessee should be tested against the general duty of the lessee to conduct operations as a reasonably prudent operator in order to carry out the purposes of the oil and gas lease.

Amoco contends the Court of Civil Appeals' holding expands the offset drilling obligation beyond the point of fairness and workability by including within it the obligation to offset field-wide or regional drainage. Field-wide drainage affects all leases in the field; and if the duty exists, each lessee may be required to drill offset wells. The drilling of offset wells increases field-wide drainage and sets off a chain reaction the drilling of each additional well would trigger a field-wide obligation to drill more offsets and each drilling would further accelerate the field-wide drainage. Amoco argues, therefore the end result of carrying out the obligation would be self-defeating.

Amoco also says that updip leases enjoy a natural advantage over downdip leases. If the natural drainage is to be offset, the only valid way is through field-wide regulation by the Railroad Commission regulating rates of production to protect correlative rights in the field.

[6, 7] The implied covenant to protect against drainage is part of the broad implied covenant to protect the leasehold. The covenant to protect the leasehold extends to what a reasonably prudent operator would do under similar facts and circumstances. "As is true of the other implied duties, it is not easy to separate the duty from the standard of performance. The lessee is required generally to do what a prudent operator would do. Protection of the leased premises against drainage is but a specific application of that general duty." 5 E. Kuntz, a Treatise on the Law of Oil and Gas § 61.3 (1978). The covenant to

protect from drainage is not limited to local drainage. It extends to field-wide drainage. Oil lost by field-wide drainage is just as lost as local drainage oil. The methods of safeguarding from the loss may be different and protecting from local drainage may be easier. However, it is no defense for a lessee to say there is no duty to act as a reasonably prudent operator to protect from field-wide drainage.

[8] A lessor is entitled to recover damages from a lessee for field-wide drainage upon proof (1) of substantial drainage of the lessor's land, and (2) that a reasonably prudent operator would have acted to prevent substantial drainage from the lessor's land. In *Shell Oil Co. v. Stansbury, supra*, this Court held a reasonably prudent operator would have drilled a well on the lessor's land to protect from drainage. However, because of the complexity of the oil and gas industry and changes in technology, the courts cannot list each obligation of a reasonably prudent operator which may arise. The lessee must perform any act which a reasonably prudent operator would perform to protect from substantial drainage.

[9, 10] The duties of a reasonably prudent operator to protect from field-wide drainage may include (1) drilling replacement wells, (2) re-working existing wells, (3) drilling additional wells, (4) seeking field-wide regulatory action, (5) seeking Rule 37 exceptions from the Railroad Commission, (6) seeking voluntary unitization, and (7) seeking other available administrative relief. There is no duty unless such an amount of oil can be recovered to equal the cost of administrative expenses, drilling or re-working and equipping a protection well, producing and marketing the oil, and yield to the lessee a reasonable expectation of profit. *Clifton v. Koontz*, 160 Tex. 82, 96-97, 325 S.W.2d 684, 695-96 (1959).

The Court of Civil Appeals has not imposed a new obligation upon Amoco. The jury, in finding that Amoco failed to operate the Alexander leases as a reasonably prudent operator, has determined that Amoco failed in its duties under the implied covenants to protect the leasehold.

Amoco argues the Court of Civil Appeals did not consider that Amoco has obligations to all of its lessors in the field. Anything it does to maintain or increase production from updip leases may accelerate the water drive and expose Amoco to liability to downdip lessors. If Amoco fails to maintain or increase updip production, it is exposed to liability from the updip lessors. Amoco argues the Court has placed it between contrary obligations from which there is no escape. The fulfilling of one obligation necessarily causes the breach of the other.

The conflicts of interest of Amoco, as a common lessee, cause us concern. The Alexander leases provided for $\frac{1}{8}$ th royalty while Amoco's updip leases provided for $\frac{1}{4}$ th royalty. There is no economic incentive for Amoco to increase production on the Alexander lease because it will eventually recover the Alexander's oil updip. Money invested in the Hastings, West Field, will have a longer productive life if invested updip. The greater the updip production the sooner Amoco's competitor Exxon will water out. Money spent updip will yield greater returns than money spent downdip because of higher daily production. With downdip operators out of production Amoco can produce its upper sands without competition and can begin production from its lower sands where it does not have significant production competition.

These conflicts would not occur if Amoco was not a common lessee (lessee common to downdip and updip lessors). If the Alexanders were the only Amoco lessor, their interests would more nearly coincide. Amoco's interest would be to capture the most oil possible from the Alexander leases before they watered out.

[11] Amoco's responsibilities to other lessors in the same field do not control in this suit. This lawsuit is between the Alexanders and Amoco on the lease agreement between them and the implied covenants attaching to that lease agreement. The reasonably prudent operator standard is not to be reduced to the Alexanders because Amoco has other lessors in the same field.

Amoco's status as a common lessee does not affect its liability to the Alexanders.

DUTY TO APPLY FOR ADMINISTRATIVE RELIEF

The Railroad Commission rules in the Hastings, West Field, prohibit the drilling of a well nearer than 660 feet to any other well and nearer than 330 feet to any property line or lease line. The rules allow the Railroad Commission to grant drilling permits as an exception to the spacing regulation. These exceptions are commonly referred to as Rule 37 permits. This rule provides:

[T]he Commission in order to prevent waste or to prevent the confiscation of property will grant exceptions to permit drilling within shorter distance than above prescribed whenever the Commission shall determine that such exceptions are necessary to prevent waste or to prevent confiscation of property.

The Alexanders contend Amoco should have drilled replacement wells in the extreme updip corner of each lease. The wells would be within 50 feet of the lease line and 200 feet apart. The wells could not be drilled unless the Railroad Commission granted Rule 37 permits. Amoco did not apply for the permits.

The Court of Civil Appeals held that when Amoco determined the leases were watering out, prudent operation demanded drilling replacement wells unless it would be economically unfeasible. If Rule 37 permits were required, Amoco should have applied for them in furtherance of its duty to prudently operate the leases. Because Amoco failed to apply, the Court of Civil Appeals held, the Alexanders were entitled to show the exceptions most likely would have been granted and they suffered damages because of Amoco's failure.

Amoco states the holding of the Court of Civil Appeals amounts to the imposition of an implied covenant obligating a lessee to seek exceptions to regulations limiting the drilling and production of wells. Amoco argues there is no Texas authority for im-

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posing an obligation to seek administrative relief and there is no duty to seek administrative relief.

[12] We disagree with Amoco's argument that there is no duty to seek administrative relief. Amoco owed the Alexanders the duty to do whatever a reasonably prudent operator would do if the Alexanders were its only lessor in the field.

The duty to seek favorable administrative action may be classified under the implied covenants to protect the lease, or to manage and administer the lease. Regardless of the category, the standard of care in testing Amoco's performance is that of a reasonably prudent operator under similar facts and circumstances. *Shell Oil Co. v. Stansbury*, 410 S.W.2d 187, 188 (Tex.1966); 5 H. Williams & C. Meyers, *Oil and Gas Law* § 804 (1980).

[13] We do not agree with the Court of Civil Appeals if its holding means that in every case of field-wide drainage the lessee must seek Rule 37 exceptions. There may be facts where the prudent operator would not seek administrative relief. The probability that the Railroad Commission will grant or deny the permit is a consideration to be made by the prudent operator. The jury, from evidence justifying granting or denying the permit, can determine if a reasonably prudent operator would have applied for the permit.

The jury found Amoco failed to operate the Alexander leases as a reasonably prudent operator. Does this finding, based in whole or in part on Amoco's failure to apply for Rule 37 permits, establish liability for failure to drill the replacement wells? If it does not, what remedies do the Alexanders have? They have no rights in the management or operation of the oil leases. Amoco, as operator, could quickly determine when the wells began watering out. Amoco, because of its conflicting interests, had no economic incentive to protect the Alexander leases. The downdip lessors, after their leases have watered out, have no opportunity to capture the oil updip.

It is the failure to act as a reasonably prudent operator that triggers the loss. If the Railroad Commission denies the Rule 37 permits, after a reasonably prudent application, the operator has no liability for not drilling the wells. We hold that an operator, who fails to act as a reasonably prudent operator by not seeking Rule 37 permits, is liable for loss caused by the failure to drill the wells.

TESTIMONY THAT THE RAILROAD COMMISSION WOULD GRANT RULE 37 PERMITS

The Alexanders' two expert witnesses testified, in response to hypothetical questions, that the Railroad Commission would have granted approval to drill the replacement wells. Amoco contends the admission of this evidence is reversible error.

The jury question was whether Amoco operated the leases as a reasonably prudent operator. In answering this question the jury had to determine whether a reasonably prudent operator would have requested Rule 37 permits. The jury was not asked whether the Railroad Commission would have granted them.

There was other evidence on which the jury could base its decision. Amoco knew that: this was a water-drive field and the Alexander leases were downdip; these leases would water out first; the leases began watering out; a 25% increase in field production, allowed by the Railroad Commission, would speed up the watering out of the leases; there was a process by which permits could be granted; drainage was occurring as early as 1972; Amoco's action updip was accelerating the drainage; Amoco could recover the Alexander oil on its updip leases; Amoco had no economic incentive to drill replacement wells on the Alexander leases; the Alexander leases would be the first to require additional replacement wells.

There was evidence that the Railroad Commission granted twenty-two Rule 37 permits to Exxon and Amoco updip in the same fault block section of this field beginning in 1975. The jury could also consider

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that Amoco, in opposing a 1973 Rule 37 application on the adjacent Pearland lease, represented that the Pearland lease had 2.9 million barrels of oil originally in place. This meant that in 1973 the lease had already produced all of its recoverable oil originally in place. However, in the course of this litigation, Amoco revealed that the calculation of its own reservoir engineers showed that 3.884 million barrels of oil were originally in place under the Pearland lease.

[14] This Court has upheld the admissibility of evidence showing the reasonable probability that zoning restrictions will be lifted. See *City of Austin v. Cannizzo*, 153 Tex. 324, 333-35, 267 S.W.2d 808, 814-15 (1954). However, we need not decide whether it was error to admit the answers to the hypothetical questions in this case because the answers are cumulative to other evidence presented to the jury. This Court is not of the opinion that such error, if any, amounted to such a denial of Amoco's rights as is reasonably calculated to cause and probably did cause the rendition of an improper judgment. Tex.R.Civ.P. 434, 503.

EXEMPLARY DAMAGES

Amoco argues that exemplary damages are not recoverable because the Alexanders failed to plead and prove a tort allowing recovery of exemplary damages. We agree.

The Alexanders alleged "a breach by Amoco of both its express and implied covenants . . . under the lease contracts . . . to protect said leases from drainage and to operate said leases as a reasonable and prudent operator" and their "royalty interest under Leases A and B has been wasted and damaged"

First, Amoco argues that exemplary damages are not recoverable because a breach of the implied covenant to protect against drainage is an action sounding in contract and not in tort. The rights and duties of the lessor and lessee are determined by the lease and are contractual. The lease constitutes the contract. In the absence of express provisions to the contrary, the lease imposes upon the lessee several implied cov-

enants, including the duty to protect against drainage. *Texas Pac. Coal & Oil Co. v. Barker*, 117 Tex. 418, 431, 6 S.W.2d 1031, 1035 (1928); see Note, 12 St. Mary's L.J. 600, 601-602 (1980).

[15] In *Texas Pac. Coal & Oil Co. v. Stuard*, 7 S.W.2d 878, 882 (Tex.Civ.App.—Eastland 1928, writ ref'd), the Court of Civil Appeals held that "the implication to develop after drilling the exploratory well is a part of the written contract and is governed by the four-year statute of limitation." In *Indian Territory Illuminating Oil Co. v. Rosamond*, 190 Okl. 46, 120 P.2d 349, 354 (1941), the Oklahoma Supreme Court held that "the implied covenant to protect against drainage is a part of the written lease as fully as if it had been expressly contained therein . . ." and applied the statute of limitations relating to actions on written contracts. We hold that the implied covenant to protect against drainage is a part of the lease and is contractual in nature.

[16-18] Exemplary damages are not allowed for breach of contract. *A. L. Carter Lumber Co. v. Saide*, 140 Tex. 523, 526, 168 S.W.2d 629, 631 (1943); *McDonough v. Zamora*, 338 S.W.2d 507, 513 (Tex.Civ.App.—San Antonio 1960, writ ref'd n. r. e.). Even if the breach is malicious, intentional or capricious, exemplary damages may not be recovered unless a distinct tort is alleged and proved. *City Prods. Corp. v. Berman*, 610 S.W.2d 446, 450 (Tex.1980); *A. L. Carter Lumber Co. v. Saide*, *supra*. *K. W. S. Mfg. Co. v. McMahon*, 565 S.W.2d 368, 372 (Tex.Civ.App.—Waco 1978, writ ref'd n. r. e.). We hold that a breach of the implied covenant to protect against drainage is an action sounding in contract and will not support recovery of exemplary damages absent proof of an independent tort.

Second, Amoco argues that exemplary damages are not recoverable under a cause of action for "waste." The Alexanders as lessors under the oil and gas leases are not entitled to maintain an action for waste. Waste is defined as "permanent harm to real property, committed by tenants for life

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or for years, not justified as a reasonable exercise of ownership and enjoyment by the possessory tenant and resulting in a reduction in value of the interest of the reversioner or remainderman." *Moore v. Vines*, 474 S.W.2d 437, 439 (Tex.1971); 1 American Law of Property § 2.16e (1952).

[19] The common law theory of waste must not be confused with an action for negligent waste or destruction of minerals which may be maintained by a mineral or royalty owner. See *Elliff v. Texon Drilling Co.*, 146 Tex. 575, 583, 210 S.W.2d 558, 563 (1948). The Alexanders owned a 1/8th royalty interest in the leases. A royalty or royalty interest, whether created by grant or reservation or by lease, is an interest in real property and is a fee simple interest in land. *Sheffield v. Hogg*, 124 Tex. 290, 298, 77 S.W.2d 1021, 1024 (1934).

This is not a waste case. There has been no "waste" as defined in section 85.046(a) of the Texas Natural Resource Code. There has been no negligent waste or destruction as occurred in *Elliff*, *supra*. Nor has there been an ultimate loss by a reversionary or remainder interest. The problem is the operation, by a common lessee, of some leases to the detriment of others.

TRIAL OF COMMON LESSEE CASES

The courts that have considered the common lessee problem have considered facts different from this case. In those cases the common lessee was causing the drainage by production on adjacent or adjoining land. The drainage was caused by production independent of water-drive and was local drainage. However, those decisions are analogous because of the common lessee. Professors Williams and Meyers have put these cases in three categories. See 5 H. Williams & C. Meyers, *Oil and Gas Law* § 824 (1980); Meyers & Williams, *Implied Covenants in Oil and Gas Leases: Drainage Caused by the Lessee*, 40 Texas L. Rev. 923 (1962). First, there are cases which state the lessee was causing the drainage but place no significance on that fact. See, e. g., *Billeaud Planters v. Union Oil Co. of Cal.*, 245 F.2d 14, 18-19 (5th Cir. 1957);

Gerson v. Anderson-Prichard Prod. Corp., 149 F.2d 444, 445-46 (10th Cir. 1945); *Chapman v. Sohio Petroleum Co.*, 297 S.W.2d 885, 886-87 (Tex.Civ.App.—El Paso 1956, writ ref'd n. r. e.). Second, other cases state that the lessee caused the drainage but hold this fact does not alter the ordinary rules of liability for failure to protect from drainage. *Hutchins v. Humble Oil & Ref. Co.*, 161 S.W.2d 571, 573 (Tex.Civ.App.—Galveston 1942, writ ref'd w. o. m.); *accord*, *Tide Water Associated Oil Co. v. Stott*, 159 F.2d 174, 177 (5th Cir. 1946). Third, there are cases holding the liability of the lessee is increased when the lessee is causing the drainage. See, e. g., *Cook v. El Paso Natural Gas Co.*, 560 F.2d 978, 982-84 (10th Cir. 1977) (reasonable prudent operator rule inapplicable in common lessee case, proof of drainage all that is required); *Bush Oil Co. v. Beverly-Lincoln Land Co.*, 69 Cal.App.2d 246, 158 P.2d 754, 758 (1945) (immaterial whether protection well would be profitable if drainage caused by lessee's affirmative act); *Phillips Petroleum Co. v. Millette*, 221 Miss. 1, 72 So.2d 176, 183 (Miss. 1954) (lessee strictly liable for substantial drainage caused by own affirmative acts).

This Court in *Shell Oil Co. v. Stansbury*, 410 S.W.2d 187, 188 (Tex.1966), expressly overruled the *Hutchins* case, *supra*, and held that an express offset provision does not limit the lessee's obligation to protect from drainage when the lessee is the one causing the drainage. In drainage cases, Texas courts place upon the lessor the burden to prove that substantial drainage has occurred and that an offset well would produce oil or gas in paying quantities. *Clifton v. Koontz*, *supra*.

The judgment of the Court of Civil Appeals is modified to prohibit the recovery of exemplary damages and affirmed as modified.



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April 21, 1986

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OIL CONSERVATION DIVISION

R. L. Stamets, Director
Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico 87501

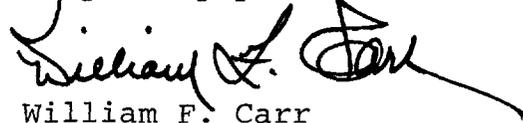
Re: Case No. 8758 (De Novo): Application of Monsanto
Company for an Unorthodox Gas Well Location, Dual
Completion and Simultaneous Dedication, Eddy
County, New Mexico.

Dear Mr. Stamets:

Enclosed for your consideration is Amoco Production
Company's Proposed Order of the Commission in the above-
referenced case. As you will note, this order does not
address Monsanto's request for dual completion, inasmuch as
Amoco Production Company is not in opposition to that portion
of the application.

Your attention to this matter is appreciated.

Very truly yours,


William F. Carr

WFC/cv
enclosure

cc: Mr. Clyde Mote
Mr. Steve Sheffler
Amoco Production Company

cc: Owen Lopez, Esq.
cc: Louanna Walker
State Land Office

(w/enclosures)

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION FOR THE PURPOSE OF
CONSIDERING:

APPLICATION OF MONSANTO COMPANY
FOR AN UNORTHODOX GAS WELL LO-
CATION, DUAL COMPLETION, AND
SIMULTANEOUS DEDICATION, EDDY
COUNTY, NEW MEXICO.

Case 8758 De Novo
Order No. R-8162-A

PROPOSED ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on April 9, 1986, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this _____ day of April, 1986, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Monsanto Company (Monsanto) seeks approval of an unorthodox gas well location for a well to be drilled 330 feet from the South and West lines of Section 36, Township 21 South, Range 23 East, N.M.P.M., Eddy County, New Mexico, to be dually completed in the Indian Basin-Upper Pennsylvanian and Indian Basin-Morrow Gas Pools, all of said Section 36 to be simultaneously dedicated in both zones to the well and to the existing Lowe State Gas Com Well No. 1 located 1995 feet from the North line and 1712 feet from the West line of said Section.

(3) Both the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Morrow Gas Pool are governed by Special Pool Rules which provide for 640-acre gas well spacing with wells located no closer than 1650 feet from the outer boundary of the section and no closer than 330 feet to any governmental quarter-quarter section line or inner boundary.

(4) The Lowe State Well No. 1 is no longer capable of commercial production from either zone and has been shut-in since May 1985.

(5) The proposed well would be the only producing well on the 640-acre spacing unit in both zones, and that portion of the application which seeks simultaneous dedication of wells in this unit is unnecessary and therefore should be dismissed.

(6) The matter originally came on for hearing at 8 a.m. on November 21, 1985, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

(7) At the November 21st hearing, Amoco Production Company (Amoco), the owner and operator of a well in Section 35, Township 21 South, Range 23 East, N.M.P.M., Eddy County, New Mexico, immediately offsetting this unit to the west, appeared and objected to the proposed unorthodox location unless a penalty is imposed on the allowable assigned to the well.

(8) On February 21, 1986, Division Order No. R-8162 was entered which granted the Monsanto application for the unorthodox location but which imposed a penalty upon the production from said well to offset the advantage gained over the offset operator by virtue of the unorthodox location.

(9) The penalty factor set out in said order was derived utilizing factors based upon the percent deviation from the standard location for the pool and the net additional area of theoretical drainage outside the proration unit than a well at a standard location.

(10) On March 13, 1986, application for hearing De Novo was made by Monsanto and the matter was set for hearing before the Commission.

(11) The matter came on for hearing de novo on April 9, 1986.

(12) At the April 9, 1986 hearing, Amoco again objected to the proposed unorthodox location unless a meaningful penalty is imposed on the well's ability to produce.

(13) The State Land Office appeared at the April 9, 1986 hearing in support of the application of Monsanto to drill an additional well at an unorthodox location in Section 36 and recommended certain methods to be considered by the Commission in imposing a penalty on production.

(14) Monsanto objected to the penalty imposed on the production from its proposed well.

(15) When speaking to the issue of authorizing exceptions to well location requirements, Division General Rule 104 G provides that:

"Whenever an exception is granted, the Division may take such action as will offset any advantage which the person securing the exception may obtain over other producers by reason of the unorthodox location."

(16) The records of the Division reflect that such action is commonly taken when a non-standard location is opposed by an offset operator.

(17) These same records also show that such action is in the form of a reduction in authority for the well at the non-standard location to produce.

(18) These records show that such reductions have taken the form of reduced acreage factors in prorated pools and production limitation factors in non-prorated pools.

(19) These records show that the factors taken into account in determining penalties to be applied to production have included net productive acres, net acre feet of pay, and other factors derived from geological and/or engineering evidence presented at hearing.

(20) The records show that when there is inadequate geological and/or engineering evidence presented at hearing upon which to base a penalty, the Division utilizes a penalty formula which takes into account the percentage variation of the proposed location from the nearest standard location and the theoretical net additional drainage off the assigned proration unit resulting from the unorthodox location.

(21) If a line projected from the closest standard location on a spacing unit is projected to and through a proposed non-standard well location, it will eventually cross into another spacing unit.

(22) At the standard location, the operator would enjoy a 100 percent right to produce from the spacing unit in question while at that point where the line crossed into another spacing unit such right would be zero.

(23) The procedure described in Finding No. (20) above, yields a factor which diminishes the right to produce from 100 percent to zero percent as the requested non-standard well location approaches the boundary of the spacing unit.

(24) Theoretical net additional drainage may be determined by assuming radial drainage sufficient to drain the spacing unit in question and calculating how much more acreage off the spacing unit will be drained by the well at the unorthodox location than at a standard location.

(25) This theoretical net additional drainage yields a factor which is indicative of the possible advantage gained because of improved drainage from offset acreage resulting from the non-standard location.

(26) In the absence of adequate geological and/or engineering evidence to establish a penalty factor or procedure to offset any advantage gained over other producers as a result of the non-standard location, a formula which utilizes the above-described factors is logical and serves to protect correlative rights.

(27) A well at Monsanto's proposed unorthodox well location will better enable Monsanto to produce the gas underlying the proration unit in both of the subject zones.

(28) A well at the proposed location is 1320 feet or 80 percent closer to the southern and western boundaries of the subject unit than a well at the closest standard location.

(29) Assuming 640-acre radial drainage, the subject well has a drainage area of approximately 210 acres outside its permitted drainage area more than a well located at the most southwesternly standard location (1650 feet from the South and West lines of said Section 35) within the unit, an amount of acreage equivalent to 33 percent of a standard proration unit in both pools.

(30) To offset the advantage gained over the protesting offset operator, production from the well at the proposed unorthodox location should be limited from both pools.

(31) Such limitation should be based upon the variation of the location from a standard location and the 210 net acre encroachment; this may be accomplished by assigning a well at the proposed location an allowable limitation factor calculated as being equal to 0.20 for the East/West factor plus 0.20 North/South factor plus 0.67 net acre factor, divided by 3, which equals 0.36 or 36 percent. This allowable limitation factor should be applied to the proposed well's production from Indian Basin-Morrow Gas Pool.

(32) The evidence presented by Monsanto, Amoco, and the State Land Office at this hearing established that although the proposed well would be capable of draining 640 acres in the Indian Basin-Upper Pennsylvanian Gas Pool, a substantial portion of Section 36 in this pool lay below the present gas-water contact and was therefore watered out and incapable of

contributing reserves to the proposed well and that only 233 acres or 36 percent of the acreage to be dedicated to the well was productive.

(33) As the evidence in this case established that a well at the proposed location would drain only 36% of a 640-acre drainage area from the acreage upon which it was located, for the allowable limitation factor imposed on the well to effectively offset the advantage gained by Monsanto by reason of the unorthodox location, the allowable limitation factor should be reduced by the percentage of a standard drainage area located on the spacing unit calculated by multiplying the 0.36 or 36 percent allowable limitation factor by 0.36 or 36 percent drainage area factor which equals a production limitation factor of 0.13 or 13 percent in the Indian Basin-Upper Pennsylvanian Pool.

(34) The aforesaid reduction limitation factors should be applied against the well's monthly allowable as set by the Division for the Indian Basin-Morrow Gas Pool and for the Indian Basin-Upper Pennsylvanian Gas Pool.

(35) Approval of the application subject to the terms and conditions of the above findings will not result in waste and will not violate correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The application of Monsanto Oil Company for an unorthodox gas well location for the Upper Pennsylvanian and Morrow formations is hereby approved to be located at a point 330 feet from the South and West lines of Section 36, Township 21 South, Range 23 East, N.M.P.M., Indian Basin-Upper Pennsylvanian and Indian Basin-Morrow Gas Pools, Eddy County, New Mexico.

(2) All of said Section 36 shall be dedicated to the above-described well.

(3) Said well is hereby assigned a production limitation factor of 0.36 in the Indian Basin-Morrow Gas Pool, Eddy County, New Mexico, as set out in Finding No. 31 of this Order.

(4) Said well is hereby assigned a production limitation factor of 0.13 in the Indian Basin-Upper Pennsylvanian Pool, Eddy County, New Mexico, as set out in Finding No. 33 of this Order.

(5) The aforesaid production limitation factors shall be applied against the well's monthly allowable as set by the Division in the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Morrow Gas Pool.

(6) The portion of this application for simultaneous dedication is hereby dismissed.

- 6 -

Case No. 8758 De Novo

Order No. R-8162-A

(7) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jim Baca, Member

Ed Kelley, Member

R. L. Stamets, Chairman
and Secretary

S E A L



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONY ANAYA
GOVERNOR

May 21, 1986

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Santa Fe, New Mexico 87501

Re: CASE NO. 8758
ORDER NO. R-8162-A

Applicant:
Monsanto Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Sincerely,

R. L. STAMETS
Director

RLS/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other Louhannah Walker, William F. Carr