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**MEASURING OF DAMAGES FROM DRILLING AND
PRODUCING OPERATIONS**

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MEASURING OF DAMAGES FROM DRILLING AND PRODUCING OPERATIONS

The topic of this paper may have deceived you into believing that I will be able to give you a standard of measurement for damages resulting from drilling or production. If so, you are certain to be disappointed. These damages cannot be measured as time is measured by a clock, distance by miles, or volume by bushels. There is not any good statutory law classifying the damages or the amounts that are payable for any specific damage, and even the general rules as enunciated by the courts are conflicting and confusing. To use the magnificent understatement of American Jurisprudence, "the cases cannot be reconciled." There are confusions, contradictions and differences, depending upon what basis of liability the court happened to apply in a given case. There are different bases for permanent or temporary injuries.

A part of this confusion arises out of the effort of the courts to apply existing concepts of the law to oil and gas problems which did not exist at the time the traditional rules of law were formulated.

Further variance in the rules of damages occurs depending on the concept of liability adopted by a given court.

In some cases liability is seen to arise as the result of a breach of contract under the clause providing for payment for

surface damage. In other cases it is considered under the law of nuisance. Some treat liability as coming under the law of negligence. Then there is the classification of wilful misconduct and the notion of liability without fault. There have been cases where the court, with sublime disregard for the granting clause of the lease, has treated the lessee as a trespasser, apparently treating as immaterial the granting clause which grants the entire premises to the lessee for the purpose of exploration and recovery of oil or gas. Implicit, in some of the decisions at least, appears to be an assumption that the lessor and lessee are embattled adversaries without mutual aims, and that the lessee is somehow imposing on the lessor. There does not seem to be a recognition of the fact that the owner of surface and minerals who makes a lease has hopes of a fortune from underground discovery. The failure on the part of courts to recognize this results in an attitude that the lessor should not be burdened with any of the consequences of efforts to produce that wealth. If the surface owner is not the mineral owner, then he has parted with the minerals and the concomitant rights for a consideration which he considered adequate, or else he has purchased the surface knowing those rights are outstanding and presumably has reduced the purchase price accordingly. In either case he should share, it would seem, in the disadvantages of lease activities.

It is not surprising that the courts have attempted to apply age-old concepts of law to the oil and gas business. The

lease form itself is an adaptation of the law of landlord and tenant simply because there was no law concerning oil and gas at the time of the discovery of these interests in real property. Nevertheless, we know that an oil and gas lease does not create exactly the status of landlord and tenant, nor does all of the law of the landlord and tenant apply to oil and gas leases. For instance, if the landlord and tenant rule that the tenant cannot question the title of his landlord were strictly applied, there would be no such thing as a protection lease, for it would create a double liability for royalty.

With the development of the oil and gas industry, the courts are beginning to recognize that there is and should be a body of law particularly applicable to the oil and gas industry and the relationships between the surface owner, the mineral owner and the lessee. It has been said that the ownership of real property is like a bundle of sticks in that it is comprised of a number of separate rights, all of which may be owned by one person. Almost invariably in oil and gas matters, however, there is a division of the sticks among two or more owners. Each owner will naturally seek to make his stick the most important and to secure for himself the greatest advantages. This becomes particularly true where the surface owner is not the mineral owner. These conflicts have brought the courts in some situations and occasionally in the matter of damages, to formulate the proposition that the rights of

each estate owner are correlative, each having a right to enjoy his separately owned stick to the fullest extent possible without preventing the owner of another stick from enjoying his estate likewise. Thus, a grant of the separate minerals without a right of entry carries with it a right to use the surface to the extent necessary to recover the minerals, but not to destroy the entire surface without compensation.

This has led to the exposition of the proposition that the lessee has the right to the reasonable use of so much of the surface as may be necessary in drilling or production without any apparent reliance on the granting clause. In some cases, transgression of this proposition has been seen in terms of negligence laws. In others, the use of more land than is reasonable and necessary has been treated as a trespass. This treatment, however, may be nothing more than the tendency on the part of the courts to bolster a decision by reference to a familiar proposition of law. Under the broad terms of the grant it would appear that the lessee is entitled to use all of the surface, but the court speaks only of the right to use so much of the surface as is reasonably necessary for exploration and production. If it is necessary to categorize the action for excessive use, it should be as based in contract rather than in tort. Of course, the right to use so much of the surface as is reasonably necessary could be negligently exercised or abused, and in such circumstances might properly

be categorized as a tort, but again it is simply the excessive use of the privilege created either by contract or by implication of law.

Even in the jurisdictions where excessive use has been expressed either as a separate ground or as equal to some other common law view, there has been confusion in expounding a measure of damages. The courts are still plagued with the problem of whether the damages are permanent or temporary. Where the rule of permanent damages is applied, the courts do not seem to have taken into account that a portion of the diminution value of the whole estate results from an absolute right to use so much of the land as is necessary.

Upon the shifting sands of liability, the courts have erected a whole super-structure of rules for the measurement of damages and have applied them variously in specific cases and not always consistently in similar situations. These include:

1. Where the damage or injury to land is classified as permanent, then the measure of damages is the difference in fair market value of the property before the injury and the fair market value after the injury.
2. Where the damage is to crops, the measure of damages may be (a) a year's rental value with the cost of planting and bringing forward the crop to the time of the loss deducted; (b) what the crop would bring in its immature stage at a sale; or

(c) proof of the average yield and the market value of crops of the same kind planted and cared for in the same manner, less the cost of maturing, harvesting and marketing.

3. Loss of Livestock. The market value of the livestock at the time of loss.

4. Damage to structures on the land. The reasonable cost of repair or restoration.

5. Temporary injuries to the land. The cost of restoration or loss of rental value.

6. Temporary injuries to livestock. The depreciation in weight or value.

7. Special damages which must be pleaded and proved such as loss of specific bargains or profits, medical expense for livestock and mental anguish of the plaintiff as a result of property damage.

8. The value to the lessee for an excessive use of a right not otherwise causing damage. (See *Quality Excelsior Coal Co. v. Reeves*; *infra*)

The distinction between a permanent injury and a temporary injury to land is not always easy to make, and the decided cases in oil and gas law have done little to elucidate the problem. Often the fact of permanent injury is assumed rather than determined. As for instance, in damage to water wells cases, which do not mention the question of whether another well might be successfully drilled for the production of water, it being

apparently assumed that the damage to the existing well permanently deprives the ownership of any water from wells. Furthermore, this method of measuring damages results in opinion evidence of so-called experts or appraisers with the usual result that the appraisals of before and after damage are ridiculously divergent, leaving the jury to choose any figure between the high and the low.

In this situation, the man charged with determining what to pay in settlement of damages must feel that he is gambling with the other fellow's dice.

One of the most extensive judicial discussions of damages and the measure of damages is in the case of Frankfort Oil Company v. Abrams, 413 P.2d 190, decided by the Supreme Court of Colorado in 1966. That case was decided upon the contractual rights of the surface owner and the mineral owner under a reservation in the deed to the surface owner and a provision in a lease by the mineral owner to the lessee, which provided that the lessee should be liable "for all damages to the land, livestock, growing crops or improvements caused by lessee's operations on said land." In the opinion the court said: "Without a lease provision, the rule seems to be that absent unreasonable use or statutory provision or a suit filed in tort for negligence, no payment is due for surface damages due to exploration or drilling." However, as to the measure of damages there was apparent testimony that some portions of the land

were permanently destroyed, and the court noted that both parties agreed that the measure of damages was the difference in the market value of the land before and after impairment, and the court said that that was the correct measure. As to growing crops the court found that native grass is a growing crop and that the measure of damages for growing crops might be any one of three different methods of determination. "One might be a year's rental value, with a cost of planting and bringing forward the crop until the time of its loss; another, what the crop would bring in its immature state at a sale; and a third, the proof of the average yield and the market value of crops of (the) same kind planted and cared for in the same manner, less the cost of maturing, harvesting and marketing."

The recent case of O'Brien v. Primm, 243 Ark. 186, 419 S.W.2d 323, decided by the Supreme Court of Arkansas on October 9, 1967, does not specifically pass under the proper measure of damages as the points on appeal were limited to the question of whether a directed verdict should have been granted. The legal theory upon which the case was apparently tried was that the lessee negligently performed a sand fract job on an oil well, and within a week or so the water in the lessee's water well became unfit for human consumption. Apparently the landowner assumed that the permanent injury rule would be applicable and produced evidence that the market value with good usable water before the sand fract job was \$20,000.00, and \$8,000.00

to \$10,000.00 without good usable water. On the other hand, lessee's witnesses used a before and after value of \$12,500.00 and \$11,000.00 "based on the value of the two houses and one acre of ground with each house and \$1,000.00 for drilling a new well." The court went on to say: "From this testimony and the testimony of appellees as to their inconvenience in having to haul water for domestic use, together with the testimony of Mr. Hamlin as to the two water strata in the area, one 25 to 30 feet deep and the next 360 feet deep, we are of the opinion that appellees submitted ample competent evidence to support a jury verdict of \$4,000.00." In this case, it would appear that causation is supplied by the sudden appearance of acid in the landowner's well and negligence can be inferred from the vibrations caused by sand fracturing. The damages were not limited to restoring the water supply at a cost of \$1,000.00, but the landowner was held entitled to \$3,000.00 in addition thereto on the theory of permanent damage plus inconvenience in having to haul water for domestic use.

In the case of Ark. La. Gas Co. v. Wood, 240 Ark. 948, 403 S.W.2d 54 (May, 1966), Arkansas appeared to have adopted the unreasonable use basis for determining liability, for the court said: "It is true that an oil and gas lease gives with it the right to possession of the surface to the extent reasonably necessary to enable a lessee to perform the obligations imposed upon him by the lease. This includes the right to enter upon the premises, use so much of it and in such manner

as may be reasonably necessary to carry out the terms of the lease and effectuate its purpose." Again, the court did not have clearly before it a proper measure of damages, and no issue as to the measure of damages appeared before the appellate court. It appears from the opinion, however, that there was testimony of the landowner and two of his neighbors as to the amount of damages as estimated by them for the unreasonable use. The damages apparently consisted of using four acres for a roadway and two acres for a drill site, though this was disputed as to acreage amount. An additional factor of damages was the use of water from a stock pond, causing it to go dry from the 25th of May to September. One witness based his estimate of damages on what it would take to hire a bulldozer and operator to repair the damage. The court commented, without giving any details, that there was other evidence that more land was used than was reasonably necessary. In this case, an instruction told the jury: "It is for the jury to determine what is a reasonable use." The Supreme Court brushed an objection to the instruction aside on the assertion that it was not prejudicial to the lessee. Apparently, so far as can be determined from the opinion itself, the jury was given no guide-lines as to what is or is not an unreasonable use. No instruction appears which takes into account the amount of roadway that a prudent operator would build, nor the extent of a drill site that he would use. The court apparently leaves it to the jury to determine what is reasonable or unreasonable.

In the earlier case of Sunray DX Oil Company v. Thurman, 238 Ark. 789, 384 S.W.2d 482 (December, 1964), the court again expresses liability in terms of negligence in a case involving the escape of salt water from a pit onto surrounding land and destroying vegetation to the extent of five or six acres, all immediately surrounding the separator used in the production of the oil. This expression of negligence as to the basic law might well be termed an excessive use. Any negligence in the case must be inferred from the fact that during rain, the salt water pits overflowed. It was the contention of the lessee in that case that the plaintiff did not allege that the salt water or waste oil traveled beyond the areas necessarily required by the defendant for its oil operations under the lease. The court said that it did not understand this statement and "appellant seems to indicate by the statement that as a part of its normal operations it was entitled to permit the salt water to travel over some part of appellee's land. But we do not concur in this view. Was it necessary that the salt water traveled over the land at all? How did it help appellant's oil operation for salt water to overflow the pit? We cannot agree with appellant's statement that negligence has not been shown, for the evidence reflected that one side of the pit was low (whether as a result of faulty construction or erosion), and this permitted the salt water to overflow during rainy periods." It can hardly be denied that the lessee had the

As to salt water, Arkansas has, since 1957, had an act making it mandatory that salt water produced from any newly discovered oil or gas field commencing with July 1, 1957, be disposed of by the producer of said salt water by either putting it in pits or recycling it back into the proper sand. Probably it would be held that this statutory obligation would require the operator to so construct his pits that salt water could not escape either onto the surface or into subterranean strata. But this would not affect the rules for measuring damages.

There are many other cases in Arkansas, Texas and in Oklahoma, as well as other states, with holdings of similar import. I am appending a bibliography to this paper for those who may have any further curiosity on the subject.

There is one other case I want to call to your specific attention. For, although it does not deal with oil and gas, it still points out that there are circumstances where with neither negligence nor damage there can be a recovery by the lessor. This is the case of Quality Excelsior Coal Co. v. Reeves, 206 Ark. 713, 177 S.W.2d 728 (1944). Lessor in that case had granted a coal lease and the lessee used a subterranean passage not only to haul coal from lessor's land, but from adjacent lands. Although the lessee undoubtedly had the right to use the underground passageways for hauling coal, the court reverted to the concept of trespass and held the lessee liable because he had "beneficially occupied the property" by using it for purposes not intended by the lessor. Finding no other

rules for the measurement of damages that would result in payment, the court concluded that the measure of damages was the value of the use of the property for transporting coal from the adjacent land, thus giving to the lessor an overriding royalty on the adjacent coal when removed.

The conclusion is inevitable that the courts, in attempting to formulate the rules of liability governing the relationship between lessor and lessee in regard to the use of surface land, have attempted to apply the law of various kinds of actions and adopt the rules for measurements of damages as expressed in those actions without giving fair consideration to the right of the lessee to use such surface as is reasonable and necessary to produce the underground well, although such production benefits both lessor and lessee.

The adoption of the rule of difference in the before and after value, as illustrated in the cases heretofore mentioned, does result in the lessee often paying full value for the land so occupied without receiving any credit for his right to occupy so much as is reasonably necessary.

There is no completely satisfactory answer to these inequities, though it might be possible to enter into some form of an agreement with the lessor as to the use of land for drilling and producing operations which would limit or mitigate against the consequences of leaving it to a jury to say what is unreasonable or excessive use. It might be possible to

develop an agreement between surface owner and lessee setting out the measure of damages or stating the amount of land that would be considered between them a reasonable use.

Otherwise, there is no good answer to the question of what is the measure of damages, and good economics dictates that the lessee exercise great care in making use of the surface for his operation, and should damage occur, attempt to negotiate a reasonable settlement.

BIBLIOGRAPHY

I. Common Law and Contract Rights and Liabilities of Lessee, and Lessor:

Cranston v. Miller, 208 Ark. 156, 185 S.W. 2d 920
(1945)

Wiser Oil Co. v. Conley, 380 S.W. 2d 217 (Ky. 1964)

Brennan v. Socony Mobile Oil Company, Inc., 254 F.Supp.
792 (Tex. 1966)

Lindsey v. Wilson, 332 S.W. 2d 647 (Ky. 1960)

Cities Service Pipe Line Co. v. Stidham, 368 P. 2d
1007 (Okla., 1962)

Guffey v. Stroud, 162 S.W. 2d 527 (Tex. Comm. App.,
1929)

Stradley v. Magnolia Petroleum Co., 155 S.W. 2d 649
(Tex., 1955)

Bremmer v. Union Oil Co., 81 F. 2d 437 (10th Cir.,
1936)

Holt v. Southwest Antioch Sand Unit, Fifth Enlarged,
292 P. 2d 998 (Okla., 1956)

Vogel v. Cobb, 193 Okla. 64, 141 P. 2d 176 (1943)

DuVanel v. Sinclair Refining Co., 170 Kan. 483,
227 P. 2d 88 (1951)

McLeod v. Cities Service Gas Company, (D.C. Kan.,
1955), 131 F.Supp. 449; Aff. 233 F. 2d 242
(1956)

II. Theory of Liability as Affecting Measure of Damages:

Frankfort Oil Company v. Abrams, 413 P. 2d 190
(Colo., 1966)

Kentucky-West Virginia Gas Co. v. Crum, 258 Ky.
508, 80 S.W. 2d 537 (1935)

West v. Carpenter, 366 S.W. 2d 826, (Tex. Civ.
App. 1963, error ref. n. r. e.)

Humble Oil and Refining Co. v. Williams, 420 S.W. 2d
133, (Tex., 1967)

Martin Lumber Company v. Pan Am Petroleum Co., 177
So. 2d 158, (La., 1965)

III. Negligence as Basis for Lessee's Liability:

Gulf Refining Co. v. Davis, 224 Miss. 464, 80 So. 2d
467 (1955)

Hammond v. Gardner, 315 P. 2d 669, (Okla., 1957)

Mazda Oil Corp. v. Gauley, 290 P. 2d 143, (Okla.,
1955)

Peppers Refining Co. v. Spivey, 285 P. 2d 228,
(Okla., 1955)

Weaver v. Reed, 303 S.W. 2d 808, (Tex. Civ. App.,
1957)

Wilson v. Shermerhorn Oil Company, 56 N.M. 512, 245
P. 2d 845 (1952)

Geochemical Surveys v. Dietz, 340 S.W. 2d 114, (Tex.
Civ. App., 1960)

Cities Service Oil Co. v. Corley, 197 So. 2d 244
(Miss., 1967)

Strong v. Caudill, 389 S.W. 2d 736, (Tex. Civ. App.,
error ref., n. r. e., 1965)

Currey v. Ingram, 397 S.W. 2d 484, (Tex. Civ. App.,
error ref., n. r. e., 1965)

IV. Res Ipsa Loquiter as Basis for Lessee's Liability:

Norman v. Greenland Drilling Company, 403 P. 2d 507,
(Okla., 1965)

Oklahoma Natural Gas Co. v. Colvert, 260 P. 2d 1076,
(Okla., 1953)

V. Excessive Use as Basis for Lessee's Liability:

Humble Oil & Refining Co. v. Williams, 420 S.W. 2d
133 (Tex., 1967)

Texaco Inc. v. Joffrion, 363 S.W. 2d 827 (Tex., 1962)

VI. Cases Equating or Comparing Negligence with Excessive User:

Union Producing Co. v. Pittman, 245 Miss. 427, 146
So. 2d 553 (1962)

General Crude Oil Co. v. Aiken, 162 Tex. 104, 344
S.W. 2d 668 (1961)

Brown v. Lundell, 162 Tex. 84, 344 S.W. 2d 863 (1961)

Lanahan v. Myers, 389 P. 2d 92 (Okla., 1963)

Gage v. Texas Co., 395 P. 2d 411 (Okla., 1964)

Sunray DX Oil Company v. Thurman, 238 Ark. 789, 384
S.W. 2d 482 (1964)

Ellis Drilling Co. v. McGuire, 321 S.W. 2d 911 (Tex.
Civ. App., 1959, error ref., n. r. e.)

VII. Measure of Damages:

Quality Excelsior Coal Co. v. Reeves, 206 Ark. 713,
177 S.W. 2d 728 (1944)

Benton Gravel Co. v. Wright, 175 S.W. 2d 208 (Ark.,
1943)

Gulf v. McCoy, 416 P. 2d 948, (Okla., 1966)

Wilcox Oil Co. v. Lawson, 341 P. 2d 591 (Okla., 1959)

Wood Oil Co. v. Endicott, 205 Okla. 59, 234 P. 2d 371
(1951)

Danciger Oil & Refining Co. v. Donahey, 205 Okla. 390,
238 P. 2d 308 (1951)

Pure Oil Co. v. Renton, 207 Okla. 151, 248 P. 2d 580
(1952)

Stanolind Oil and Gas Co. v. McGeeley, 273 P. 2d 1007
(Okla., 1954)

Cities Service v. Merritt, 332 P. 2d 677 (Okla., 1958)

Lanahan v. Myers, 389 P. 2d 92 (Okla., 1963)

Ohio Oil Co. v. Elliott, Court of Appeals, 254 F. 2d
832 (10th Cir., 1958)

Frankfort Oil Company v. Abrams, 413 P. 2d 190
(Colo., 1966)

Sunray DX Oil Company v. Thurman, 238 Ark. 789,
384 S.W. 2d 482 (1964)

O'Brien v. Primm, 243 Ark. 186, 419 S.W. 2d 323
(1967)

Ark-La Gas Co. v. Wood, 240 Ark. 948, 403 S.W. 2d
54 (1966)

Arnold H. Bruner Co. v. McCauley, 319 S.W. 2d 763,
(Tex. Civ. App., 1958)

Ellis Drilling Corporation v. McGuire, 321 S.W. 2d
911, (Tex Civ. App. 1959)

Western Geophysical Co. v. Mason, 240 Ark. 767,
402 S.W. 2d 657 (1966)

VIII. Statutory Restrictions on Excessive Use:

Oklahoma:

52 O. S. 1941, § 296

McMahon v. Lentz, 192 Okla. 152, 134
P. 2d 563 (1943)

Phillips v. Altman, 412 P. 2d 199
(Okla., 1966)

Ross v. Fink, 378 P. 2d 1011 (Okla.,
1963)

Arkansas:

Ark. Stats. Anno. §§ 53-211 and 53-212 (Supp., 1963)