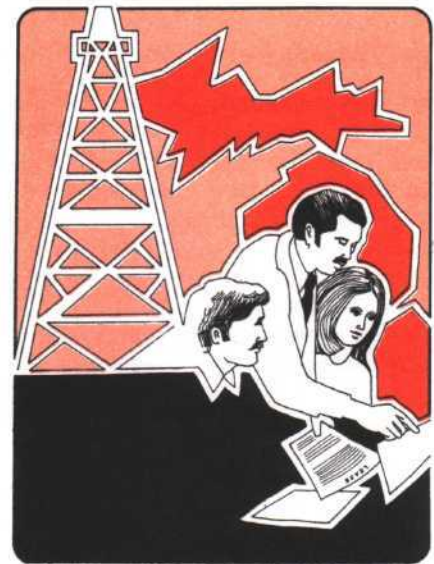


Michigan's Oil and Gas Regulations

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Although oil and gas yields in Michigan fall short of other better known petroleum producing states, the comprehensive nature of Michigan's regulations governing hydrocarbon development ranks with the very best in the nation. For example, the preamble to Michigan's primary oil and gas regulation (Public Act 61, of 1939) states: "It has long been the declared policy of this state to foster conservation of natural resources to the end that the citizens may continue to enjoy the fruits and profits thereof."(1) It further notes that "failure to adopt such a policy in the pioneer days of this state permitted the unwarranted slaughter and removal of magnificent timber abounding in the state which resulted in an immeasurable loss and waste."(2) With increased development of Michigan's hydrocarbon resources, especially in the last few years, "the interests of the people demand that exploitation and waste of oil and gas be prevented so that the history of the loss of timber may not be repeated."(3)

Hydrocarbons have been produced in Michigan for almost 100 years. It should be noted, too, that Michigan's oil and gas production is not all that small; Michigan is currently the twelfth largest gas producing state and the twelfth largest oil producer (see tables, right). Oil is now the most important mineral produced in Michigan, while gas ranks third just behind iron ore.

This bulletin briefly outlines some of the rules and regulations that

Rank	State	Barrels/Day
1	Texas	2,589,400
2	Alaska	1,609,100
3	Louisiana	1,231,000
4	California	1,054,700
5	Oklahoma	422,100
6	Wyoming	357,700
7	New Mexico	196,100
8	Kansas	180,300
9	North Dakota	124,500
10	Florida	95,300
11	Mississippi	93,700
12	MICHIGAN	89,500
13	Montana	84,500
14	Colorado	83,000
15	Utah	70,800

Source: Energy Information Administration, U.S. Dept. of Energy.

have been adopted to prevent the waste of oil and gas, primarily as embodied in PA-61, of 1939, as amended. Such information should be of interest to the growing number of Michigan landowners that are considering leasing, or have recently leased, their oil and gas rights. Along with PA-61, many other pieces of legislation can, in some instances, govern certain aspects of oil and gas development or operation; among them the Wetlands Act, the Clean Air Act, and the Soil Erosion and Sedimentation Act. While this bulletin does not begin to cover the full scope of

Rank	State	Billions of Cu. Ft./Yr.
1	Texas	6,870
2	Louisiana	6,492
3	Oklahoma	2,019
4	New Mexico	1,123
5	Kansas	640
6	Wyoming	549
7	California	368
8	Alaska	243
9	Colorado	189
10	Mississippi	178
11	West Virginia	161
12	MICHIGAN	157
13	Ohio	123
14	Pennsylvania	96
15	Arkansas	95

Source: Energy Information Administration, U.S. Dept. of Energy.

petroleum-related regulation, it should nonetheless prove a valuable starting point for landowners concerned about what is, and what is not, covered by existing statutes in Michigan.

The Regulatory Structure

The director of the Michigan Department of Natural Resources (DNR) acts as the state's "Supervisor of Wells." As the chief power behind oil and gas regulations, the director designates a suitable assistant to enforce the law. In this respect, the assistant supervisor of

wells is customarily the head of the DNR's Geological Survey Division and takes the place of the director in the day-to-day enforcement of "... all matters relating to the prevention of waste . . . and to the conservation of oil and gas in this state."(4)

An Oil and Gas Advisory Board is also established to consult and advise the Supervisor on technical matters related to petroleum developments. The eight-member Board is composed of six people from the petroleum industry and two members from the general public. All appointments are set for staggered, three-year terms. In its advisory capacity, the Board is said to have a history of commendable, cooperative input.

Basic Regulatory Powers of the Supervisor of Wells

In his/her efforts to prevent oil and gas waste, the Supervisor of Wells has a wide range of basic powers and prerogatives. One such power, for example, gives him/her the right "to collect data, to make inspections, studies, and investigations, and to examine such properties, leases, papers, books and records as are necessary to the purposes of this act. . ."(5) With operations in the petroleum industry often so highly proprietary, the fact that "all information shall be available to the Supervisor or his/her authorized representatives at all times"(6) is quite significant. The Supervisor must, however, "... respect the right of the operator to keep drilling information and other related data confidential before completion of a well."(7)

The range of the Supervisor's regulatory powers is too extensive to list. However, a few of his/her more significant powers include:

- overseeing the locating, drilling, casing, sealing, operating, and plugging of individual well sites to prevent a range of possible waste or pollution problems,
- regulating the mechanical, physical, and chemical treatment of wells,

— regulating secondary recovery methods, and

— regulating production rates.

The Supervisor's other powers are perhaps best summarized by his/her right "to require by written notice or citation immediate suspension of any operation of practice and the prompt correction of any condition found to exist which is causing, or resulting, or threatening to cause or result, in waste."(8)* All such actions, of course, are subject to proper public hearing procedures. The remainder of this bulletin analyzes several key provisions in greater detail.

Drilling Permit

A drilling permit is required from the Supervisor of Wells as a prerequisite to any and all drilling activities. This includes not only standard drilling operations, but deepening efforts, directional drilling, and workovers. Applications for a drilling permit must include, among other things, a full description of the project, an environmental impact statement, and the filing of a surety bond. "A person who drills a well shall file a bond for a single well in the amount of \$5,000 or shall file a blanket bond for all wells in the amount of \$50,000."(9) Liability on this bonding is conditioned on full compliance with all rules and orders of the Supervisor and continues until the wells have been abandoned or satisfactorily plugged, and all required well records have been filed.

The permit application fee is \$100. Generally 2-4 weeks are required for processing prior to issuance. Permits terminate one year following issuance, without refund,

* The term "waste" is widely used in Michigan oil and gas regulation and gives broad usage to the Supervisor. Waste may refer to (1) underground waste — inefficient, excessive, or improper use or dissipation of the reservoir energy, or damage to underground fresh waters; (2) surface waste — losses by evaporation, seepage, leakage; or fire or damage to surface resources; or (3) market waste — excessive production above market demand.

if no drilling activity has commenced.

Drilling Units and Spacing

To encourage the sound and orderly development of a newly discovered oil or gas field, the Supervisor establishes a drilling unit for such pools, defined as the maximum area which may be efficiently and economically drained by one well. Usually drilling units are set at 40 or 80 acres, but they vary from 10 acres up to as much as 640 acres in Michigan, depending on geologic conditions.

"Each well permitted to be drilled on any drilling unit shall be located in the approximate center thereof, or at such other location thereon as may be necessary to conform to a uniform spacing pattern as adopted and promulgated by the Supervisor after due notice and public hearing. . ."(10) Generally speaking, any new well site is located in the center of a drilling unit at least 330 feet from an adjoining unit and approximately one-quarter mile from any adjacent well (unless the adjacent well has been located irregularly as an exception to the established spacing pattern).

In some cases, exceptions may be granted to this center-spacing rule when, for example, a unit lies outside of a pool, or difficult topographical or hydrological conditions prevail, or the existing structures or developments necessitate off-center spacing. When such exceptions are granted,

"... the Supervisor shall take such action as will offset any advantage which the person securing the exception may have over other producers in the pool . . . and so that drainage from the developed areas of the tract will be minimized and the producer of the well drilled as an exception will be allowed to produce no more than his/her just and equitable share of the oil or gas in the pool. . ."(11)

Regulations specify that upon the establishment of any new discovery well, all subsequent developmental wells (i.e., those within a two mile radius) "... shall be located in the

same relative position in each drilling unit as that of the discovery well. This uniform spacing of wells shall be followed until such time as a special spacing order may be adopted . . ."(12) by the Supervisor of Wells.

Apportionment

"When, to prevent waste, the Supervisor limits the amount of oil or gas to be produced from any well, pool, or field . . . he/she shall, after consulting with the Board and considering its recommendations, allocate or distribute . . . an allowable production which will prevent a general or premature abandonment of the wells in such pool or field." (13) This is the essence of the regulatory concept of "apportionment." While it is by no means a standard figure, typical apportionment rates in Michigan run about half of total possible production.

Apportionment is, of course, a conservation measure aimed at maintaining production rates over the long term. When such apportionment is promulgated, the Supervisor ". . . shall prorate or distribute on a reasonable basis the allowable production among the producing wells in the field or pool, so as to prevent or minimize reasonably avoidable drainage from each developed area which is not equalized by counter drainage."(14) Proration orders, following public hearing, ". . . shall specify the maximum amount of oil and gas which may be produced per 24-hour day for wells completed in conformance with an established drilling unit and well spacing pattern."(15)

Regarding production on special small tracts (less than a full drilling unit), each well ". . . shall produce only in the field or pool in which such tract is located."(16) In this or any other apportionment situation, operators are responsible for regulating production to meet the established standards of the Supervisor. Reports of such production rates are required by the Supervisor each month, and he/she may conduct a personal inspection to insure compliance at any time.

Pooling

In many cases, one landowner may not own enough acreage in the right place to establish the full drilling unit. In this situation, several leases must be pooled together to form a legitimate unit. In this way, "the owner of any tract that is smaller than the drilling unit established for the field, shall not be deprived of the right to drill on and produce from such tract. . ." (17) This pooling procedure is also referred to as communitizing or unitizing.

Pooling may occur either voluntarily, when the required land has all been leased, or by order of the Supervisor, where a minority interest refuses to lease. This second form of pooling — called compulsory pooling — is rare, but for those involved, it obviously becomes very important. While the rule forces the minority holdout interest to become pooled, that interest will nonetheless receive compensation for the proportionate share of oil or gas recovered from the unleased property (usually as a working partner in the venture) and will still have no actual drilling occur on that property. (see *Oil and Gas Facts #1*, "Compulsory Pooling," E-1612.)

Operating Regulations

Public Act #61 provides specific procedures for standard oil and gas development, with rules covering such aspects as casing, sealing, the use of drilling fluids, piping, and blowout prevention. As mentioned, any deviation from the original drilling plan, such as deepening or directional drilling, requires special permitting. The same holds for secondary recovery operations.

In some situations where an operator fails to meet regulatory guidelines, the Supervisor may take matters into his/her own hands to rectify the problem, with the negligent operator held liable for all expenses. He/she may also choose to simply shut down an operation until compliance is met. The Supervisor's authority also extends to the decommissioning of a site, whereby anyone who abandons a well with-

out properly plugging it is guilty of a misdemeanor.

Environmental and Safety Regulations

Michigan law specifically states that "no drilling shall be commenced at a location where there is danger that oil, oily wastes, or salt water may escape into, and pollute, any stream or lake or other body of water, until the owner shall have complied with the methods and means to prevent such pollution as have been specified by the Supervisor." (18) The proper means of disposal for such drilling pollutants as brines or salt water are also stipulated.

Additional guidelines have been established for cleaning well and tank sites to prevent fires or pollution. Drilling pits and well cellars must be filled and the area graded and leveled within a reasonable time after the completion of a well. Frozen ground and wet weather conditions, however, can sometimes delay this activity. Gas that is produced, but not utilized, in the operation of oil wells ". . . shall be burned, processed, or disposed of in a manner approved by the Supervisor."(19)

One aspect of oil and gas development that is not regulated in Michigan is the siting of wells or related structural developments relative to buildings, including homes and commercial establishments. Currently, the State legislature is considering some "zoning" amendments which may help to rectify the situation in the near future. However, to require oil and gas wells to be located a uniform distance (say, "at least 200 feet") would mean that a well must be as far removed from an abandoned chicken coop as from a house.

Conclusion

Anyone leasing his or her land for oil and gas development in Michigan should remember an extremely

important fact: the State Department of Natural Resources, in promulgating the directives of the Supervisor of Wells, is concerned primarily with the management and conservation of a resource and not with ensuring an equitable economic distribution of the profits it may yield. With this in mind, it is the landowner's responsibility to oversee his/her economic well-being; the State will do a fairly good job of managing the resource (at least far better than other mid-western states). But, as in any contract involving high stakes, sound judgment and careful consideration of individual needs are a must. A thorough understanding of what the State can and cannot do is also im-

portant. Hopefully, this bulletin provides some helpful thoughts along the way.

References

All references are taken from "Michigan's Oil and Gas Regulations," *Circular 15: Act-61, P.A. 1939 as Amended and Rules Promulgated* (January, 1981); copies are available from the Dept. of Natural Resource's *Geological Survey Division, P.O. Box 30028, Lansing, MI 48909*.

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