

MICHIGAN

Administration

1. Agency regulating oil and gas exploration/production: [Oil, Gas, and Minerals Division, Department of Environmental Quality](#), P.O. Box 30256, Lansing, Michigan 48909-7756. Phone: (517) 284-6823. (Supervisor of Wells - same address).
2. Contact for regulatory updates: [Oil, Gas, and Minerals Division, Department of Environmental Quality](#), P.O. Box 30256, Lansing, Michigan 48909-7756. Phone: (517) 284-6823.
3. Docketing procedure: Petition for matters to be heard before the Supervisor of Wells. [Section 61516, Natural Resources and Environmental Protection Act, 1994 PA 451](#), as amended (NREPA); [Administrative Rules R 324.1201 through R 324.1212](#).
 - a. Emergency orders: Yes. By the Supervisor of Wells set forth in [Section 61516 of NREPA](#). Remains in full force and effect no more than 21 days. A hearing may be held in the interim and a permanent order is issued pursuant thereto.
 - b. Notice: Twenty-one days prior to date of hearing ([R 324.1204](#)). The petitioner must furnish proof of publication and affidavits of proof of mailing by first class mail or personal service.
4. Agency regulating air emissions: [Air Quality Division, Department of Environmental Quality](#), P.O. Box 30260, Lansing, MI 48909-7760. Phone: 517-284-6763.
5. Agency regulating water quality: [Water Resources Division, Department of Environmental Quality](#), P.O. Box 30258, Lansing, MI 48909-7958. Phone: 517-284-5567.

License

1. License required: No.
2. Conditions of license: N/A

Bond/Surety

1. Purpose of surety: To ensure compliance with the statute, rules, and orders.
2. Plugging and restoration: The bond can be claimed to recover costs to case, plug, or repair a well.

3. Compliance bond required: Yes. [R 324.210, R 324.211](#).
4. Types of surety accepted: Conformance Bond, Letter Of Credit, Cash, Certificate of Deposit.
5. Conditions of bond: Remaining in full force and effect until such time the well or wells are properly plugged and abandoned or sold and transferred to the new owner and released by the Supervisor of Wells. [R 324.213, R 324.214, R 324.215, and R 324.216](#).
 - a. Amount per well: Dependent on well depth, \$10,000 - \$30,000. [R 324.212](#).
 - b. Amount of blanket bond: Dependent on well depth, \$100,000 - \$250,000. [R 324.212](#).

Land Leasing Information

1. Leasing method: Primarily competitive public auction with possible direct leasing.
2. Notice method: At least once in a newspaper where the lands are situated not less than 10 days before the sale, with additional notifications provided in the Department of Natural Resources Calendar and Natural Resource Commission agenda (for auctions).
3. Minimum bidding \$ (per acre): \$10 per acre; parcels for which no bids are received may be re-offered at a minimum bid of \$2 per acre.
4. Qualification of the bidder: An individual of age of majority, legal age in Michigan is 18 years old, or a partnership, corporation, or other legal entity qualified to do business in the state of Michigan.
5. State statutes: [Section 324.502 of the NREPA](#); Administrative Rules [R 299.8102 ó 299.8107](#), definitions under [R 299.8101](#).
6. Maximum acres: Within one governmental quarter section per lease, typically 160 acres.
7. Royalty rates: Competitive auctions ó 1/6th. Direct leases ó negotiated with minimum of 3/16th.
8. Agency in control of leasing: Michigan Department of Natural Resources, Office of Minerals Management. Manager: Mark Sweatman, Phone: 517-284-5910.

Setbacks

1. What rules/regulations/policies does your jurisdiction have in regard to well setbacks from private residences and/or other habitable structures for use by humans or animals? [Part 615 Administrative Rule R324.302](#) requires 300 feet setback from structures for public or private occupancy. If the township has population greater than 70,000 people then the setback is 450 feet pursuant to [Part 615 Section 61506b](#).
2. Are there other sources of information on this matter that you could identify? There are also setbacks related to water wells (public and private) and special setbacks related to hydrogen sulfide within the [administrative rules](#).

Spacing

1. Spacing requirements: Minimum 40-acre drilling unit conforming to governmental surveyed quarter-quarter section of land. Producing interval of well must be located at least 330 feet from unit boundary. [R 324.301](#).
 - a. Density: Oil well - 40 acres. Gas well - 40 acres. [R 324.301](#).
 - b. Lineal: Oil well - 330 feet from unit boundary. Gas well - 330 feet from unit boundary. [R 324.301\(b\)](#).
2. Exceptions: Yes. [R 324.301\(4\)](#), [R 324.302](#), and [R 324.303](#).
 - a. Basis: Evidence and testimony.
 - b. Approval: By order of the Supervisor of Wells pursuant to a public hearing under R 324.302, or pursuant to the voluntary pooling provisions of [R 324.303](#).

Pooling

1. Authority to establish voluntary: Yes. Part 615 [Section 61513](#); [R 324.303](#).
2. Authority to establish compulsory: Yes. A public hearing is necessary. Part 615 Section [61513\(4\)](#); [R 324.304](#), [R 324.1202](#), [R 324.1206](#).

Unitization

1. Compulsory unitization of all or part of a pool or common source of supply: Yes. [Part 617, Unitization, of NREPA](#).
2. Minimum percentage of voluntary agreement before approval of compulsory unitization: [\(Section 61706 of the NREPA\)](#).
 - a. Persons liable for at least 51 percent of costs and owners of at least 51 percent of royalty production.

- b. Persons entitled to 75 percent of all production proceeds and owners of 50 percent of royalty production.
- c. Persons entitled to 65 percent of all production ([Section 61706 of the NREPA.](#)).

Drilling Permit

1. Permits required for:
 - a. Drilling a producing or service well: Yes. [R 324.201.](#)
 - b. Seismic drilling: Yes. For holes 50 feet or deeper and penetrating bedrock. [Part 625, Mineral Wells of NREPA.](#)
 - c. Recompletion: Yes. Deepening [R 324.206](#) and [R 324.420](#); Rework [R 324.511.](#)
 - d. Plugging and abandoning: Yes. [R 324.901.](#)
2. Permit fee:
 - a. Drilling: \$300. [Section 61525 of NREPA.](#)
 - b. Seismic drilling: Test wells 250 feet or less in depth that do not penetrate below the deepest freshwater stratum are subject to a blanket test well permit ranging from \$75 for 1 to 24 wells to \$600 for 200 wells. Deeper test wells are subject to fee of \$500 per well. [Section 62509 of NREPA.](#)
 - c. Recompletion: None.
 - d. Plugging and abandoning: None.
3. Require filing report of work performed: Yes. [R 324.418](#), [R 324.419](#), [R 324.421](#), [R 324.511](#), and [R 324.902\(10\).](#)
4. Sundry notices used: No.

Vertical Deviation

1. Regulation requirement: Yes.
 - a. When is a directional survey necessary: When the hole is intentionally directionally drilled. [R 324.421.](#)
 - b. Filing of survey required: When the hole is intentionally directionally drilled. [R 324.421.](#)

- c. Format of filing: Paper copy; submit on original Directional Driller company letterhead/format.

Casing and Tubing

1. Minimum amount required:
 - a. Surface casing: Yes. [R 324.408](#).
 - b. Production casing: Yes. [R 324.410](#).
2. Minimum amount of cement required:
 - a. Surface casing: Circulate to surface. [R 324.408](#).
 - b. Production casing: Varies on formation and depth. [R 324.411](#), [R 324.413](#).
 - c. Setting time: 12-hour minimum. [R 324.411](#).
3. Tubing requirements:
 - a. Oil wells: Yes. [R 324.507](#).
 - b. Gas wells: Yes. Gas storage wells are exempt. [R 324.507](#).

Hydraulic Fracturing

1. Permitting: Per Rules [R 324.511](#), [R 324.1402](#).
 - a. Before drilling: Identify intent to use high-volume hydraulic fracturing with permit application ó [R 324.511](#), [R 324.1402](#).
 - b. Before fracing: With permit application (see (a) above).
 - c. How long before: With permit application (see (a) above).
2. Reporting requirements: Per Rules [R 324.511\(2\)](#), [R 324.1405](#).
 - a. Where reported: Notification to agency of high volume hydraulic fracturing 48 hours prior to the commencement (Rule [R 324.1405](#)); report to agency on high volume hydraulic fracturing (Rule [R 324.1405](#)).
 - b. When reported: Within 60 days after completion.
3. Source water requirements: Per Rule [R 324.1402](#). Water Withdrawal Assessment Tool required for withdrawals greater than 100,000 gallons/day/30 days.
4. Mechanical integrity: Per Rules R [324.406\(4\)](#) (pressure-testing of casing), [R 324.1405](#) (monitoring during hydraulic fracturing).

- a. Cementing log required: Case by Case.
 - b. Pressure testing: Yes.
 - c. Pressure monitoring: Yes.
 - d. Blowout preventer required: Yes.
5. Disposal of flowback fluids: Rule [R 324.503\(1\)](#).
- a. Retaining pits: Not Allowed.
 - b. Tanks: Required.
 - c. Approved discharge to surface water: Not Allowed.
 - d. Underground injection: Required into approved disposal wells.
6. Chemical disclosure requirement: Per Rules [R 324.201](#), [R 324.1406](#).
- a. Mandatory: Required for high volume hydraulic fracture completions.
 - b. Where disclosed: Disclosure of intended chemical additives ó with application for permit to drill and operate ([R 324.201\(2\)\(c\)](#)); record of chemicals used ó posted on FracFocus (Rule [R 324.1406\(1\)](#)).
 - c. When disclosed (pre-fracing, post-fracing, both): Both.
 - d. Time limit to disclose: 30 days after well completion operations.
 - e. Information required to be disclosed: List of chemical additives used by type, trade name, and supplier; specific identity, CAS number, and maximum concentration of each chemical constituent intentionally added. For trade secret chemicals, chemical family or similar description.
 - f. Trade secret protection: Yes, but must list chemical family or similar description.
 - g. Required disclosure to health/emergency personnel: Must be provided as required by state or federal law to a health care professional for diagnosis or treatment.

Underground Injection

1. Agencies that control the underground injection of fluid by well class:

All classes: [US Environmental Protection Agency, Underground Injection Control Program](#). Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507.

Classes I, II, III: [Michigan DEQ, Oil, Gas, and Minerals](#) Division ó Class II wells are regulated under Part 615 of the NREPA; Classes I and III are regulated under [Part 625](#), Mineral Wells, of the NREPA.

Michigan is in the process of applying for primacy of the federal UIC program for Class II wells.

Completion

1. Completion report required: Yes. [R 324.418\(a\)](#).
 - a. Time limit: Within 60 days after completion of drilling. [R 324.418\(a\)](#).
 - b. Where submitted: : Supervisor of Wells, Oil, Gas, and Minerals Division, Department of Environmental Quality, P. O. Box 30256, Lansing MI 48909-7756.
2. Well logs required to be filed: Yes. [R 324.419](#).
 - a. Time limit: Within 30 days after conducting the logging run. [R 324.419](#).
 - b. Where submitted: Supervisor of Wells, address above.
 - c. Confidential time period: If requested by letter. [R 324.416](#) provides for 90 days after drilling completion.
 - d. Available for public use: Yesô both digital and paper.
 - e. Log catalog available: No.
3. Multiple completion regulation: Yes. [R 324.508](#).
 - a. Approval obtained: Upon written application and approval of Supervisor of Wells.
4. Commingling in well bore: Yes. [R 324.509](#).
 - a. Approval obtained: Upon written application and approval of Supervisor of Wells.

Oil Production

1. Definition of an oil well: A well that produces economic quantities of liquid hydrocarbon that is in the liquid state in the reservoir.
2. Potential tests required: Yes. [R 324.606](#).
 - a. Time interval: Commenced within 10 days after completion.

- b. Witness required: Optional.
3. Maximum gas-oil ratio: The Supervisor of Wells may establish efficient gas-oil ratios if required to prevent waste and after a public hearing. [Section 61506 of NREPA; R 324.601.](#)
 - a. Provision for limiting gas-oil ratio: Yes. The Supervisor of Wells may set oil or gas allowables on basis of gas- oil ratio for specific fields, after public hearing. [Section 61506, 61512, 61513 of NREPA; R 324.601.](#)
 - b. Exception to limiting gas-oil ratio: N/A
 4. Bottom-hole pressure test reports required: Supervisor of Wells may require for specific reservoir. [R 324.609.](#)
 - a. Periodical bottom-hole pressure surveys: Yes, for specified reservoirs.
 5. Commingling oil in common facilities: Yes, with approval of Supervisor of Wells. Requires facility details and schematic drawing. Each well's production must be individually measured and compared to and balanced with actual sales. All details are to be reported on forms provided. [R 324.510.](#)
 6. Measurement involving meters: Yes.
 7. Production reports:
 - a. By lease: Yes, if pooled or unitized.
 - b. By well: Yes.
 - c. Time limit: 45 days following production month.

Gas Production

1. Definition of a gas well: A well that produces economic quantities of hydrocarbons that are in the gaseous state in the reservoir.
2. Pressure base 14.73 psia @ 60 degrees F.
3. Initial potential tests: Yes. AOF test (1 or 4 point).
 - a. Time interval: Before pipeline connection permit is permanently issued.
 - b. Witness required: Rarely.
4. Statewide allowable: Yes. 17 ½ percent of AOF for single well reservoirs.
5. Pool allowable: Yes. When transmission lines are running at capacity and curtailment is required.

6. Well allowable: Yes. Proration allowable (when more than one well is in reservoir) is based on amount of pay under the drilling unit (90 percent generally) and absolute open flow test (10 percent generally).
7. Exempt allowable: Yes, for low potential wells.
8. Bottom-hole pressure test reports required: Yes.
 - a. Periodical bottom-hole pressure surveys: Yes.
9. Commingling of gas in common facilities: Yes, with approval of Supervisor of Wells. Require facility details and schematic drawing. Each well's production must be individually measured and compared to and balanced with actual sales. All details are to be reported on forms provided. [R 324.510](#).
10. Measurement involving meters: Yes.
11. Production reports:
 - a. By lease: Yes, if pooled or unitized.
 - b. By well: Yes.
 - c. Time limits: 45 days following production month.