

# MICHIGAN

## Administration

1. Official name of agency regulating oil/gas exploration & production: [Office of Oil, Gas, and Minerals, Department of Environmental Quality](#), P.O. Box 30256, Lansing, Michigan 48909-7756. Phone (517) 241-1548. (Supervisor of Wells - same address).
2. Contact for regulatory updates: [Office of Oil, Gas, and Minerals, Department of Environmental Quality](#), P.O. Box 30256, Lansing, Michigan 48909-7756. Phone (517) 241-1548.
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) 373-7023.
5. Agency regulating water quality: [Water Resources Division, Department of Environmental Quality](#), P.O. Box 30258, Lansing, MI 48909-7958. Phone (517) 373-1170.

## License

1. License required: NA
2. Conditions of license: NA

## Bond/Surety

1. Purpose of surety: To ensure compliance and provide mechanism for well plugging and restoration.
2. Plugging and restoration: NA
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: 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 Calendar and Natural Resource Commission agenda (for auctions).
3. Minimum bidding \$ (per acre): \$10 per acre for the next four scheduled auctions through May 2014. Thereafter, subject to bi-annual review for the subsequent four auctions.
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 – 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 – 1/6<sup>th</sup>. Direct leases – negotiated with minimum of 3/16<sup>th</sup>.
8. Agency in control of leasing: [Michigan Department of Natural Resources, Minerals Management Section Manager](#) position, currently vacant, (517) 335-3251. In the interim, the Acting Manager contacts are: Thomas Hoane, [HOANET@michigan.gov](mailto:HOANET@michigan.gov) Phone: (517) 241-3769 or Mary Uptigrove, [uptigrovem@michigan.gov](mailto:uptigrovem@michigan.gov) (517) 373-0576.

#### Setbacks

1. What rules/regulations/policies does your jurisdiction have regarding well setbacks from private residences and/or other habitable structures for use by humans or animals? The Wells and non-H<sub>2</sub>S production facilities: 300 feet from water wells and from structures used for public or private occupancy. H<sub>2</sub>S production facilities: 600 feet from water wells, structures used for public or private occupancy, areas maintained for public recreation, or the edge of interstate, United States, or state highway.
2. Are there other sources of information on this matter that you could identify?

### Spacing

1. Spacing requirements: Minimum 40-acre drilling unit conforming to governmental surveyed quarter-quarter section of land. Wells located approximately 1,320 feet apart. [R 324.301](#).
  - a. Density: Oil well - 40 acres. Gas well - 40 acres. [R 324.301](#).
  - b. Lineal: Oil well - 1,320 feet. Gas well - 1,320 feet. [R 324.301\(b\)](#).
2. Exceptions: Yes. [R 324.301\(2\)](#) and [R 324.303](#).
  - a. Basis: Evidence and testimony.
  - b. Approval: By order of the Supervisor of Wells pursuant to a public hearing, or pursuant to the voluntary pooling provisions of [R 324.303](#).

### Pooling

1. Authority to establish voluntary: Yes. [R 324.303](#).
2. Authority to establish compulsory: Yes. A public hearing is necessary. [R 324.304](#).

### 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 75 percent of costs and owners of 75 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 90 percent of all production [\(Section 61706 of the NREPA.\)](#).

### Drilling Permit

1. Require permits for: Yes. [R 324.418\(a\)](#).
  - 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: \$500.00 for individual test wells. Blanket test permits (50 feet – 250 feet) follow a permit fee schedule.
  - 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: NA

#### 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 Supervisor of Wells Instruction 1-2011.
  - a. Before drilling: Disclosure of potential completion type required.
  - b. Before hydraulic fracturing: Yes, Pursuant to [Part 615 of the NREPA](#), [R 324.402](#) and [R 324.511\(1\)](#).
  - c. How long before: Not less than 48 hours.
2. Reporting Requirements: Per [Part 615 of the NREPA](#), [R 324.511\(2\)](#).
  - a. Where reported: Completion Report within 60 days.
  - b. When reported: 60 days.
3. Source Water requirements: Per Supervisor of Wells Instruction 1-2011. If on-site withdrawal is considered a high volume withdrawal (greater than 100,000 gallons/day/30 days) then the Department of Environmental Quality water withdrawal assessment tool is required.
  - a. Mechanical integrity: Per Supervisor of Wells Instruction 1-2011.
  - b. Cementing log required: Case by Case.
  - c. Pressure testing: Yes.
  - d. Pressure monitoring: Yes.
  - e. Blowout preventer required: Yes.
4. Disposal of flowback fluids: [Per Part 615 of the NREPA](#), [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.

5. Chemical disclosure requirement: Per Supervisor of Wells Instruction 1-2011.
  - a. Mandatory: Required for high volume hydraulic fracture completions.
  - b. Where disclosed: Separate disclosure filed with the Department of Environmental Quality's Office of Oil, Gas, and Minerals.
  - c. When disclosed (pre-fracturing, post-fracturing, both): Both.
  - d. Time limit to disclose: 60 days after well completion operations.
  - e. Information required to be disclosed: MSDS sheets for the chemical additives are required. Service company fracturing records, annulus pressures, and volume data is required within the Record of Well Completion.
  - f. Trade secret protection: Yes. While the Office of Oil, Gas, and Minerals asks for the chemicals involved, State does not require the exact chemical make-up.
  - g. Required disclosure to health/emergency personnel: Yes, pursuant to Part 615 of the NREPA Rule R 324.1008, Reporting of losses, spills and releases and the materials involved must be reported within 8 hours.

#### Underground Injection

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

[US Environmental Protection Agency, Underground Injection Control Program](#), required for all classes. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507; Phone: (312) 353-2000 Toll free within Region 5: (800) 621-8431

[Michigan DEQ Office of Oil, Gas, and Minerals](#) – Oil/Gas Waste/brine disposal wells (Class 2), and enhanced oil recovery operations regulated under Part 615 of the NREPA, other classes regulated under Part 625 Mineral Wells of the NREPA (hazardous waste disposal, gas storage, solution mining).

#### 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, Office of Oil, Gas, and Minerals, 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: Yes.
  - 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: Rarely but representative of the Supervisor of Wells may if he wishes.
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: NA
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. Low potential wells have a minimum allowable.
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.