

# DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

## DIVISION 10

### OIL AND GAS RULES

#### 632-010-0002

##### General Rules

These general rules apply to all lands within the jurisdiction of the State of Oregon unless otherwise specifically stated.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95

#### 632-010-0004

##### Supremacy of Special Rules

The board may issue special rules, including field rules. A special rule supersedes a general rule on the same subject to the extent that the general rule is in conflict with the special rule.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

#### 632-010-0008

##### Definitions

The definitions in ORS 520.005 apply to this rule division. In addition, the following definitions apply:

(1) "Allowable Quantity" means the amount of natural gas or oil allowed by order of the board to be produced within a stated period.

(2) "Atmospheric Pressure" means the pressure of air at sea level, equivalent to about 14.73 pounds per square inch absolute.

(3) "Barrel" means 42 U.S. gallons of oil at a temperature of 15.55 degrees Centigrade (60 degrees Fahrenheit), with deductions for the full percent of basic sediment, water, and other impurities present, ascertained by centrifugal or other recognized and customary tests.

(4) "Blowout" means an uncontrolled escape of oil, natural gas, or water as a flow from a well.

- (5) "Blowout Preventer" means a heavy casing-head control of special gates or rams that will seal the annular space between drill pipe or tubing and casing or completely close off the top of the inner casing string.
- (6) "Board" means the Governing Board of the State Department of Geology and Mineral Industries.
- (7) "Bottom Hole Pressure" means the pressure in pounds per square inch at or near the bottom of an oil or gas well determined at the face of the producing horizon by means of a pressure recording instrument, adopted and recognized by the oil and gas industry, and corrected to the sea level elevation.
- (8) "Casing Pressure" means the pressure in the annular space between the tubing and casing measured at the wellhead.
- (9) "Completion" means a well is in such condition that it is capable of producing oil or gas, or both.
- (10) "Contaminate" means any chemical, ion radionuclide, synthetic organic compound, microorganism, waste or other substance that does not occur naturally in groundwater or that occurs naturally but at a lower concentration.
- (11) "Contamination" means introduction of contaminate.
- (12) "Decommission" means the condition of a well when it has been lawfully and permanently plugged and the well pad, access road and other related disturbance reclaimed to a secondary beneficial use that is compatible with the land use designation according to these rules with the approval of the department.
- (13) "Department" means the State Department of Geology and Mineral Industries.
- (14) "Development" means any work performed to bring about production of oil or gas, or both.
- (15) "Developed Area or Developed Unit" means a unit as defined in ORS 520.005(12) having a well completed thereon capable of producing oil or gas in paying quantities. However, in the event the board finds that a part of any unit is nonproductive, then the developed area of the unit includes only the productive part.
- (16) "Differential Pressure" means:
- (a) In the case of wellhead measurement, the difference between the tubing pressure and the casing pressure; or
- (b) In the case of an orifice meter, the pressure difference between the upstream and the downstream sides of the orifice, a pressure difference measured with a differential gauge or with a manometer (U tube).
- (17) "Disposal Well" means any well used for the purpose of disposal of produced saltwater and produced oil field waste.
- (18) "Drilling Unit" means the acreage dedicated to a well before field limits and spacing rules are established by the board.
- (19) "Edge Water" means water that holds the oil or gas, or both, in a higher structural position usually encroaching on a pool as the oil or gas is recovered.

(20) "Fair Share" means that part of recoverable oil or gas, or both, in a developed area of a pool proportional by area to the recoverable oil or gas, or both, in the entire developed area of the pool, insofar as these amounts can be practically ascertained.

(21) "Gas Allowable" means the amount of natural gas authorized to be produced by order of the board.

(22) "Gas-Oil Ratio" means the relation of the gas in cubic feet to the production of oil in barrels as accepted by pipelines.

(23) "Gas Repressuring" means the introduction of gaseous substances into a pool by artificial means in order to replenish, replace, or increase the reservoir energy.

(24) "Gas Well" means:

(a) A well that produces natural gas only;

(b) That part of a well where the gas producing stratum has been successfully cased off from the oil so that the gas and oil are produced through separate casing or tubing;

(c) Any well capable of producing gas in commercial quantities; or

(d) A well producing from a reservoir containing no commercially significant liquid hydrocarbons.

(25) "Idle Well" means an inactive well that has not been completed, suspended, or decommissioned with approval of the department.

(26) "Illegal Gas" means gas that has been produced within the state from any well or wells in excess of the amount allowed by any rule, regulation, or order of the board.

(27) "Illegal Oil" means oil that has been produced within the state from any well in excess of the amount allowed by any rule, or order of the board.

(28) "Illegal Product" means any product of oil or gas, any part of which was processed or derived, in whole or in part from illegal oil or illegal gas, or from any product thereof.

(29) "Indices of Productive Value" means the factors to be considered in ascertaining the productivity of all property in a pool for the purpose of fixing the allowable production. These indices may include, at the discretion of the board, potential acreage, gas-oil ratios, static reservoir pressures, flowing pressures, fluid level drawdowns, the well or wells, or any other pertinent factors.

(30) "Lease" means the exclusive right to explore for, drill for, and produce petroleum, natural gas, and associated hydrocarbons.

(31) "Lessee" means a person who becomes a mineral rights owner by leasing mineral rights from a mineral rights owner.

(32) "Mineral Rights Owner" means the person who has the exclusive right to lease or grant rights for mineral exploration and includes owners of unleased mineral rights and lessees of mineral rights.

(33) "Mud-Laden Fluid" means any approved mixture of fluid and clay or other material that will effectively seal the formation to which it is applied.

- (34) "Net Drainage" means the drainage or migration of oil or gas within the reservoir not equalized by counter-drainage.
- (35) "Oil Allowable" means the amount of oil authorized to be produced by order of the board.
- (36) "Oil Well" means any well that is not a gas well and is capable of producing oil or condensate in paying quantities.
- (37) "Operator" means any person who is in charge of the development of a lease or the construction, development or operation of a well subject to the division.
- (38) "Overage, Overproduction" means the oil or gas produced in excess of the allowable quantity fixed by the board.
- (39) "Period Allowable" means the period as designated by the department, in which an allowable quantity may be produced.
- (40) "Pool" means an underground reservoir containing a common accumulation of oil and natural gas. A zone of a structure that is completely separated from any other zone in the same structure is a pool.
- (41) "Potential" means the computed daily ability of a well to produce oil and/or natural gas as determined by a test made in conformity with rules prescribed by the board.
- (42) "Permittee" means any person who has the right to drill a well and has received a permit or is an operator.
- (43) "Pressure Maintenance" means:
- (a) The re-introduction, in the early stages of field development, of gas or fluid produced from an oil or gas well to maintain the pressure of the reservoir; or
  - (b) The introduction of gas or fluid for the same purpose, but obtained from an outside source.
- (44) "Producer" means the owner of one or more wells capable of producing oil or gas or both.
- (45) "Proved Oil or Gas Area" means the area that has been shown by development or geological information to be such that additional wells drilled thereon are reasonably certain to be commercially productive of oil or gas, or both.
- (46) "Purchaser" means any person who directly or indirectly purchases, transports, takes, or otherwise removes production from a well, wells, or pool.
- (47) "Run" means oil or gas piped from one place to another.
- (48) "Separator" means an apparatus for separating fluid, as it is produced.
- (49) "Service Well" means any well drilled to be used for the purpose of underground natural gas storage or to monitor such underground storage.
- (50) "Shortage or Underage" means the amount of production less than the allowable.

(51) "Spacing Unit" means the acreage dedicated by the board to a well after field limits and rules are established.

( ) (52) "Storage" means produced oil, gas, or both confined in tanks, reservoirs, or containers.

(53) "Suspension" means the status of a well that is not in a plugged or completed condition when it has been safely left unattended, with the written approval of the department, for a period of 30 days or more.

(54) "Unlawful Abandonment" means the condition of:

(a) An idle well from which drilling equipment has been removed;

(b) An idle well with drilling equipment present but no activity for 30 consecutive days; or

(c) Any suspended well whose period of approved suspension has expired and an additional 30 days has elapsed.

(55) "Wellhead" means equipment consisting of valves installed at the surface of the well.

(56) "Well Log" means the written record progressively describing the strata, water, and oil or gas encountered in drilling a well with such additional information as to give volumes, pressure, rate of fill-up, water depths, caving strata, casing record, etc., as is recorded in the normal procedure of drilling. It also includes all electrical and mechanical surveys performed in the well bore.

(57) "Wildcat Well" means a drilling or producing well located in an area that is not a "Proved Oil or Gas Area".

**NOTE:** Additional definitions may be found in ORS 520.005 and 520.015.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 2, f. 6-20-55; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1982, f. & ef. 6-25-82; GMI 1-1985(Temp) f. & ef. 6-7-85; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; GMI 3-1997, f. & cert. ef. 12-3-97; DGMI 1-2013, f. & cert. ef. 3-21-13

## **632-010-0010**

### **Application and Permit to Drill, Redrill, Deepen, Alter Casing, or Rework**

(1) No person may construct, drill, operate, or decommission a well until the person has received a permit, paid to the department a nonrefundable fee for each such well pursuant to ORS 520.017, and posted a bond or other financial security pursuant to OAR 632-010-0205. Construction includes construction of access roads, well pads and other site disturbances relating to the development of the site. Drilling includes redrilling, deepening, and drilling to set conductor pipe. Operation includes maintaining the well while in use or while production is suspended. Decommissioning includes plugging and restoration of the well site.

(2) The application for a permit must include:

(a) The location of the well;

(b) The name and address of the surface owner, operator, permittee and any other person responsible for the conduct of the drilling operations;

(c) The elevation of the well above sea level;

(d) Casing and cementing programs giving details of casing sizes, casing grade, hole diameters, and volume of cement to be used;

(e) Geologic objectives for wells proposed for known producing areas and proposed depth in all cases; and

(f) Documentation of the ownership of mineral rights or a mineral rights lease on the property to be drilled, or the right or obligation, under the terms of an existing contract, to drill a well.

(3) The permit will be suspended if the applicable rights in subsection (2)(f) of this rule cease to exist prior to the decommissioning of the well, access roads and any related disturbance.

(4) If a completed application has not been received by one year from the date of the receipt of the initial application, the application will be automatically returned to the applicant and will be deemed withdrawn.

(5) The applicant must be registered with the Secretary of State if registration is required by the laws of the State of Oregon.

(6) Upon receipt of an application the department will determine within 21 days if the application is complete. The department will notify the applicant of the determination in writing.

(7)(a) The department will circulate each application for a permit to drill for technical review to appropriate state agencies and the governing body of the county or city in which the well will be located. The agencies and governing body have 45 days from the date the department circulates the application in which to comment. The department can extend this period upon request by the reviewing agency for good cause. Within 60 days after receipt of a complete application for a permit, the department shall issue or deny the permit unless the department determines that a longer period is necessary to respond to comments or new information, or for any other good cause.

(b) The department may approve immediately without circulating for technical review an application for a permit to redrill, deepen, or rework if the drilling operations are an uninterrupted continuance of previous drilling operations, provided conditions of OAR 632-010-0142(3) are met.

(8)(a) The application for permit must be denied if the applicant is currently in violation of ORS 520 or with the rules in this division with respect to another well. A permit may also be denied if:

(A) The permittee has unlawfully abandoned a well or failed to submit records or samples in a timely manner; or

(B) If the applicant controls or is controlled by a person that has been determined by the department to be in violation of ORS chapter 520 or the rules in this division or has unlawfully abandoned a well or failed to submit records or samples in a timely manner.

(b) If the department refuses to issue a permit, it will notify the applicant and concurrently provide the reason for denying the permit. A person adversely affected by refusal to issue a permit may seek review of the decision by filing an appeal with the board within 30 days of the date the notice of the refusal to issue the permit is received by the applicant.

(9) When issuing the permit, the department shall inform the applicant that:

(a) Issuance of the permit is not a finding of compliance with the Statewide Planning Goals (ORS 197.225) or compatibility with the acknowledged comprehensive plan and land use regulations; and

(b) The applicant must receive land use approval from the affected local government supported by written findings as provided in OAR 632-001-0015 before the use can commence.

(10) The department may temporarily suspend operations if they are not in compliance with applicable laws or rules of this chapter, or departmental orders.

(11) The department may revoke a permit for noncompliance with applicable statutes, rules, orders, and permit conditions.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2, f. 6-20-55; GMI 1-1978(Temp), f. 5-26-78, ef. 7-1-78; GMI 1-1979, f. & ef. 1-25-79; GMI 3-1980, f. 2-29-80, ef. 3-1-80; GMI 1-1981, f. & ef. 2-26-81; GMI 1-1982, f. & ef. 6-25-82; GMI 1-1985(Temp), f. & ef. 6-7-85; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 1-1991, f. 9-5-91, cert. ef. 9-6-91; GMI 2-1995, f. & cert. ef. 3-10-95; GMI 3-1997, f. & cert. ef. 12-3-97; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0011**

##### **Active Permits**

On or before the anniversary of the issuance date of each active permit issued by the department, the permittee must pay to the department an annual nonrefundable fee in the amount specified in ORS 520.017.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1-1991, f. 9-5-91, cert. ef. 9-6-91; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0012**

##### **Modifications to Drilling Permits**

Proposed modifications to a drilling permit must be approved by the department prior to taking effect.

(1) Modification to a permit involving depth, casing, or location within the same drilling or spacing unit must be submitted on an application form provided by the department, along with the applicable fee. (2) A modification of location to a different drilling or spacing unit requires a new application and fee, and may constitute a significant modification for land use purposes.

(3) The Permittee may not transfer the permit without written approval from the department. The department may transfer a permit to a new owner or operator if the following items are provided to the department:

(a) A completed application signed by the original permittee and the new permittee;

(b) A bond or alternative form of security acceptable to the department in the name of the new permittee; and

(c) A new organization report.

(4) Deepening: A permittee must obtain written approval from the department before a well may be drilled to a depth below the maximum depth specified in the permit. To obtain approval, the permittee must file a written application that describes the present condition of the well, including the complete casing record, and the proposed work, including the plan for sealing off any oil, gas, brine, or fresh-water strata to be found or expected to be found in the deepening, and the new proposed total depth. If the method set forth is satisfactory and the permittee is not in violation of ORS chapter 520, the board's rules implementing that chapter or the orders of the board, the department, the department may approve a permit modification. The permittee may not begin the actual deepening of the well until the modified permit has been posted at the well location.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2, f. 6-20-55; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0014**

#### **Drilling Practices**

(1) Pits for drill cuttings: At every well site, the permittee must provide and use one or more pits, sumps, or above-ground containers of approved design and size for holding the drill cuttings and fluid removed from the well. All pits, sumps, or above-ground containers must be constructed in a way that allows for egress.

(2) Casing and sealing off formations general requirements:

(a) Surface casing:

(A) Surface casing used in all wells must be of suitable size, grade, condition, and wall thickness;

(B) In areas where pressure and formation are unknown, sufficient surface casing must be run to reach a depth below all known potable fresh water levels;

(C) In areas where subsurface conditions have been established by drilling experience, sufficient surface casing must reach a depth 100 feet below all fresh-water levels;

(D) The depths referred to in paragraphs (B) and (C) of this subsection must be at least 25 percent of the proposed next casing point or total depth, unless otherwise approved by the department;

(E) Surface casing and conductor pipe must be cemented. Surface casing must be cemented by the pump and plug or displacement method with sufficient cement to circulate to the surface. The conductor pipe must be cemented to the surface to prevent the migration of fluids to other zones or to the surface; and

(F) Cement must be allowed to set a minimum of 12 hours before drilling the plug.



(b) Other casing requirements: Each fluid-bearing zone above the producing horizon must be cased and sealed off to prevent the migration of formation fluids to other zones. Such casing and sealing off must be completed and tested in a manner and method approved by the department.

(c) A formation leakoff test or a casing shoe integrity test may be required by the department. If required, the results must be provided to the department for review and approval prior to the continuation of drilling operations.

(3) When drilling, a suitably weighted mud-laden fluid must be continuously maintained in the hole, from top to bottom, in accordance with recognized safe practices. The permittee may request permission from the department to use other fluids. The request must be approved in writing by the department prior to use.

(4) Wellhead equipment:

(a) When drilling in areas where high pressures are likely to exist, as determined by the department, all proper and necessary precautions must be taken for keeping the well under control, including, but not limited to, the use of blowout preventers and high-pressure fittings attached to casing strings properly anchored and cemented:

(A) The Blowout Prevention Equipment schematic diagram must indicate the minimum size and pressure rating of all components of the wellhead and blowout preventer assembly;

(B) The department, on a site-specific basis, may require the use of blowout preventers or other methods of controlling shallow coal bed methane wells;

(C) All blowout preventers, choke lines, and choke manifolds must be installed above ground level. Casing heads and optional spools may be installed below ground level provided they are visible and accessible;

(D) Blowout preventer equipment and related casing heads and spools must have a vertical bore no smaller than the inside diameter of the casing to which they are attached;

(E) All ram blowout preventers must be equipped with hydraulic locking devices and manual locking devices with hand wheels extending outside of the rig's substructure;

(F) Blowout prevention equipment installed on the well must have a rated expected formation pressure higher than the working pressure;

(G) In addition to the minimum blowout preventer requirements outlined in this section, wells drilled while using tapered drill strings must use either a variable bore pipe ram preventer or additional ram type blowout preventers to provide a minimum of one set of pipe rams for each size of drill pipe in use, and one set of blind rams.

(b) Unless otherwise approved by the department, the blowout prevention equipment must include a minimum of at least one annular blowout preventer and one double-gate preventer with pipe and blind rams or two single-ram type preventers; one equipped with pipe rams and the other with blind rams. Ram preventers or a drilling spool must have side outlets with a minimum inside diameter of 2 inches on the kill side, and 3 inches on the choke side to accommodate choke and kill lines. Outlets on the casing head may not be used to attach choke or kill lines;

(A) Additional blowout preventer equipment includes, but is not limited to, one upper kelly cock, and one drill pipe safety valve with subs to fit all drill string connections in use;

(B) Choke manifold and related equipment consists of one kill line valve, one check valve, two choke line valves, choke line, two manual adjustable chokes (each with one valve located upstream of the choke), one bleed line valve, and one mud service pressure gauge with a valve upstream of the gauge;

(C) All choke manifold valves, choke and kill line valves, and the choke line must be full bore. Choke line valves, choke line, and bleed line valves must have an inside diameter equal to or greater than the minimum requirement for the blowout preventer or drilling spool outlet;

(D) The choke line must be as straight as possible, and any required turns must be made with flow targets at all bends and on block tees. All connections exposed to well bore pressure must be welded, flanged, or clamped. Choke hoses with flanged connections designed for that purpose will be accepted in lieu of a steel choke line. The choke line must be securely anchored;

(E) The accumulator must have sufficient capacity to operate the blowout preventer equipment as outlined in this section, and have two independently powered pump systems connected to start automatically after a 200 psi drop in accumulator pressure, or one independently powered pump system connected to start automatically after a 200 psi drop in accumulator pressure and an emergency nitrogen back-up system connected to the accumulator manifold. Blowout preventer controls may be located at the accumulator or on the rig floor;

(F) A hydraulically operated accumulator; and

(G) A pit horn.

(c) Minimum requirements for blowout preventer equipment testing:

(A) All blowout preventers and related equipment that may be exposed to well pressure must be tested first to a low pressure and then to a high pressure;

(i) A stable low of 200-300 psi must be maintained for at least 30 minutes prior to initiating the high-pressure test;

(ii) The high-pressure test must be to the rated working pressure of the ram type blowout preventer equipment and related equipment, or to the rated working pressure of the wellhead on which the stack is installed, whichever is lower. A stable high-pressure test must be maintained for 30 minutes;

(iii) Annular blowout preventer must be high-pressure tested to 50 percent of the rated working pressure and maintain a stable pressure for 30 minutes; and

(iv) Manual adjustable chokes not designed for complete shutoff must be pressure tested only to the extent of determining the integrity of the internal seating components to maintain back pressure. Hydraulic chokes designed for complete shutoff must be pressure tested to 50 percent of the rated working pressure.

(B) All casing below the conductor pipe must be pressure tested to 0.22 psi per foot or 1,500 psi, whichever is greater, but not to exceed 70 percent of the minimum internal yield strength of the casing. A stable pressure must be maintained for 30 minutes. Higher pressures, using a test plug in the casing head, may be required by the department on a case-by-case basis;

(C) During blowout preventer pressure testing the casing must be isolated with a test plug set in the wellhead, and the appropriate valve must be opened below the test plug to detect any leakage that may occur due to failure of the test plug;

(D) The choke and kill line valves, choke manifold valves, upper and lower kelly cocks, drill pipe safety valves, and inside blowout preventer must be tested with pressure applied from the wellbore side. All valves, including check valves, located downstream of the valve being pressure tested, will be in the open position;

(E) Manually operated valves and chokes on the blowout preventer stack, choke and kill lines, or choke manifold must be equipped with a handle provided by the manufacturer, or a functionally equivalent fabricated handle, and be lubricated and maintained to permit operation of the valves without the use of additional wrenches or levers;

(F) All operational components of the blowout preventer equipment must be function tested at least once a week to verify the components' intended operations;

(G) The blowout prevention equipment must be pressure tested when installed, prior to drilling out casing shoes, and following repairs or reassembly of the preventers that require disconnecting a pressure seal in the assembly;

(H) During drilling operations, blowout prevention equipment must be actuated to test proper functioning once each trip, or once each week, whichever is more frequent;

(I) All flange bolts must be inspected at least weekly and retightened as necessary during drilling operations;

(J) The auxiliary control systems must be maintained in working order and be inspected daily to check the mechanical condition and effectiveness and to ensure personnel at the site are familiar with their operation;

(K) A blowout prevention practice drill must be conducted weekly for each drilling crew, and be recorded on the driller's log;

(L) The results of all blowout preventer equipment pressure tests and function tests must be recorded on the tour sheet and include the type of test, testing sequence, low and high pressures, duration of each test, and results of each test;

(M) All blowout preventer equipment test results submitted to the department must have a signed certification stating that the testing procedures of the blowout preventer equipment and the passing results are accurate and comply with OAR 632-010-0014;

(N) The department may require any blowout preventer equipment test to be conducted or witnessed by an independent third party that will report all test results to the department for review and approval prior to commencement of drilling operations;

(O) All tool pushers, drilling superintendents, and permittees' representatives (when the permittee is in control of the drilling) are required to have completed an API, IADC, or similar governing body sanction well control certification program and furnish the certification of satisfactory of completion to the department prior to the start of any drilling operations. The certification must be renewed every two years.

(5) Inclination Surveys:

(a) Unless exempted by the department, for all wells where production will be from a depth greater than 1500 feet, inclination surveys to determine the angle of the hole from the vertical must be performed before completion.

(b) The department may, for good cause, require a permittee to perform a directional survey to determine the location of the borehole at various intervals.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0015**

#### **Down Hole Loss and Decommissioning of a Radioactive Source**

(1) A permittee must notify the department within 2 hours of the down hole loss of a radioactive source (source or radioactive source). The notice must include the date of loss and location (county, survey name, abstract number, lease name, well API number, distances from survey boundaries, and Lambert Coordinates).

(2) Procedures for recovery of the lost radioactive source must be furnished to the department, and the radioactive source may not be declared decommissioned until all reasonable effort has been expended to retrieve the radioactive source, as determined by the department.

(3) Decommission procedures.

(a) Wells with decommissioned radioactive sources must be mechanically equipped to prevent either accidental or intentional mechanical disintegration of the radioactive source.

(A) Radioactive sources decommissioned in the bottom of a well must be covered with a cement plug, dyed a standard color red iron oxide at least 100 feet thick, on top of which a whipstock or other approved deflection device is set. The dye is to alert a reentry drilling engineer prior to encountering the source.

(B) Upon decommissioning a well where a radioactive source has been cemented in place behind a casing string above total depth, a standard color-dyed cement plug must be placed opposite the decommissioned source and a whipstock or other approved deflection device placed on top of the plug. The standard color-dyed cement plug must have a minimum 100-foot cement plug set opposite the source, extending at least 50 feet above and 50 feet below the source.

(C) In the event a permittee finds that after expending a reasonable effort it is not possible to decommission the source as prescribed in subparagraphs (A) and (B) of this section, the permittee may seek department approval for an alternate decommission procedure.

(D) If the hole is later sidetracked above the source, the sidetracked hole must be controlled to ensure that it is at least 15 feet away from the source.

(b) Upon permanent decommission of any well in which a radioactive source is left in the hole, and after removal of the wellhead, a permanent plaque must be attached to the top of the casing left in the hole in such a manner that reentry cannot be accomplished without disturbing the plaque. This plaque will serve as a visual warning that a radioactive source has been decommissioned in place in the well. The plaque must contain the trefoil radiation symbol with a radioactive warning and must be constructed of a long-lasting material such as monel or brass, in accordance with specifications established by the department. Additionally, the plaque must be labeled with the well name, API number, and "Oregon Department of Geology and Mineral Industries."

(c) A plugging report must be filed with the department and must identify the well as a decommissioned radioactive source well and include a signed affidavit stating that all plugging reports are accurate and comply with OAR 632-010-0015.

(d) The permittee must erect, under supervision of the department, a standardized permanent surface marker as a visual warning showing that the well contains a radioactive source. This marker must contain the following information: well name, API number, surface location, name of the permittee, name of the lease, the source or material decommissioned in the well, the total depth of the well, the depth at which the source is decommissioned, the plug-back depth, the date of the decommission of the source, the activity of the source, and a warning not to drill below the plug-back depth;

(4) The department will maintain a list of all decommissioned radioactive source wells.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0016**

#### **Enclosure and Identification of Wells, Tanks, and Other Oil Measuring Devices**

(1) The permittee must identify every well, tank, sump, or other oil-measuring device. Identification must include a sign posted in a conspicuous place near the well, tank, sump, or device with the following information:

(a) Name of permittee;

(b) Name of lessee;

(c) Section, township, and range;

(d) The department's phone number and web page address;

(e) A 24-hour emergency telephone number; and

(f) In addition, for wells, the API number must also be included.

(2) The department may require that a well or sump be fenced or walled to a minimum height of 8 feet. Such an enclosure is to be kept locked to protect life, wildlife, and property. Identification signs described in (1) of this rule must be prominently displayed.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0017**

#### **Well Records (Logs)**

(1) During the drilling, re-drilling, deepening, or reworking of a well (except seismic, core, or other shallow wells drilled solely for geological data), the permittee must keep a detailed and accurate record of the well and have it available at the well site for review by the department. The well record is to progressively describe the strata, water, and oil or gas (or both) encountered. All additional information collected shall be made available to the department, including but not limited to the following: pressures, test results, casing record, perforating, chemical treatment, and other pertinent information usually recorded in the normal procedure of drilling, provided that information submitted to the department need not include findings, interpretations, or conclusions derived from such data. This shall also include, if available, formation water chemistry analysis and hydrocarbon analysis including BTU content. All well records must include the exact surface location of the well. A copy of the records must be furnished to the department within 30 days after the completion, suspension, or decommission of any well.

(2) All well logging must be recorded. One digital copy and one paper copy is to be submitted to the department within 30 days after completion, suspension, or decommission.

(3) A complete set of cuttings, washed and dried, and correctly labeled and identified as to depth, must be filed with the department within 30 days after completion, suspension, or decommission. Core samples, if taken, would be made available to the department 30 days after analysis is completed.

(4) Well logs, electric logs, cuttings, and cores will be kept confidential by the State for a period of 2 years from the date of completion, suspension, or decommission of the well.

(a) This period of time may be extended by the department for the protection of the economic interests of the permittee of the well upon written request by the permittee showing good cause in the opinion of the department. The written request must be received by the department at least 30 days before the expiration of confidentiality. The request must include a proposed length of extension and reasons for such extension.

(b) A permittee may authorize the department to release records before the end of the 2-year confidentiality period by providing a written release from an officer of the company or its attorney-in-fact.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 1-1991, f. 9-5-91, cert. ef. 9-6-91; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

## **632-010-0018**

### **Organization Reports**

Every person acting as principal, agent for another, or independently engaged in drilling for, producing, or storing oil or gas in Oregon, must immediately file with the department an organization report on a form provided by the department. A supplementary report shall be filed immediately after any change occurs as to the facts stated in the original report.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2, f. 6-20-55; GMI 4-1985, f. & ef. 11-20-85; DGMI 1-2013, f. & cert. ef. 3-21-13

## **632-010-0020**

### **Surface Equipment**

Meter fittings of adequate size to measure the gas efficiency for the purpose of obtaining gas-oil ratios must be installed on the gas vent-line of every separator. Wellhead equipment must be installed and maintained in good operating condition so that static bottom hole pressure may be obtained at any time by the duly authorized agents of the board or the department. Valves must be installed so that pressures can be readily obtained on both casing and tubing.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0128**

#### **Boiler or Light Plant**

No open flame or source of sparks may be placed nearer than 150 feet from any producing well, hydrocarbon storage, or other flammable source.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0130**

#### **Rubbish or Debris**

Any rubbish or debris that might constitute a fire hazard must be removed to a distance of at least 150 feet from the vicinity of wells, tanks, and pump stations. All waste must be removed from the site upon completion, suspension, or decommission of the well and disposed of in such a manner as to avoid creating a fire hazard or contaminating streams and freshwater strata and in compliance with state and federal law, including any necessary permits.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0132**

#### **Tubing**

All wells must be equipped with tubing. Production must be exclusively through tubing, unless otherwise approved by the department. The bottom of tubing on flowing wells may not be higher than 100 feet above the top of the producing horizon, or as otherwise approved by the department.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1981, f. & ef. 2-26-81; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0134**

#### **Chokes**

All free-flowing wells must be equipped with chokes or beans adequate to control the flow thereof.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0136**

#### **Separators**

All wells flowing oil and gas must be produced through an oil and gas separator.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0138**

#### **Fire Walls**

Every permanent oil or condensate tank, or battery of tanks, must be surrounded by a dike or firewall with a capacity of one and one-half times that of the tank or battery of tanks.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0140**

#### **Reserve Pits, Sumps, and Above-Ground Tanks**

(1) Materials or any fluid necessary to the drilling, production, or other operations by the permittee must be discharged to or placed in pits, sumps or above-ground tanks approved by the department and the Oregon Department of Environmental Quality. The permittee must provide pits, sumps, or tanks of adequate capacity and design to retain all materials. Under no circumstances are the contents of a pit or sump allowed to:

(a) Contaminate streams, artificial canals or waterways, groundwater, lakes, rivers, or other water bodies;  
or

(b) Adversely affect the environment, including but not limited to, persons, plants, fish, and wildlife and their populations.

(2) When no longer needed, and within one year of completion of drilling operations, fluid in pits, sumps, or tanks must be disposed of in a manner approved by the Oregon Department of Environmental Quality. In addition, sumps must be filled and covered and the premises reclaimed. Restoration is not required if arrangements are made with the surface owner to leave the site suitable for a secondary beneficial use that is compatible with the applicable local comprehensive plan and land use regulations. The permittee must notify the department to inspect the site reclamation.



Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

## **632-010-0142**

### **Directional Drilling**

(1) Any well intentionally deviated from the vertical must be surveyed at intervals of at least 250 feet to determine the location of the borehole at those intervals. Deviation from the vertical for short distances is permitted without special permission to straighten the hole, sidetrack junk, or correct other mechanical difficulties.

(2) Except for the purpose of straightening the hole, sidetracking junk, or correcting mechanical difficulties as provided in this rule, no well may be intentionally deviated from the vertical unless the permittee files an application and obtains a permit from the department.

(a) Prior to drilling, an application to deviate a well may be approved as part of the drilling permit.

(b) If drilling is in progress, the permittee must notify the department immediately of the deviation of the hole or of the intention to deviate the hole. When a permittee follows this procedure, an application must be submitted as soon as practicable to obtain a permit. The application for a permit to deviate the hole is to be submitted to the department along with the appropriate fee pursuant to ORS 520.017 and must include:

(A) Surface location in terms of distances from lease and section boundaries, and plan coordinates of top of producing interval and bottom of hole from surface location;

(B) Reason for deviation;

(C) If the proposed or final location of the producing interval of the directionally deviated well is not in compliance with the spacing or other rules applicable to the reservoir:

(i) List of affected mineral rights owners or evidence that the applicant is the only affected mineral rights owner. For the purposes of this rule, affected mineral rights owners are the mineral rights owners in adjoining or cornering drilling or spacing units toward which the well is to be deviated;

(ii) A plat of the lease and of all affected leases showing the names of all affected mineral rights owners and the surface and proposed producing interval locations of the well. The plat must be drawn to a scale that allows easy observation of all pertinent data; and

(D) Other information as the department may require.

(3)(a) The department will notify all affected mineral rights owners, located in drilling or spacing units toward which a well is being directionally drilled, of the proposed deviation before approving an application. Approval of the application to deviate will be granted or denied at the discretion of the department. Affected mineral rights owners may submit a written request for a hearing to consider the application. If any such mineral rights owner requests a hearing within 20 days of the date of the department's notice, the hearing will be held without undue delay by the board or its designated representative. If no request for a hearing is made within 20 days of the department's notice, the department may approve the application.

(b) If the applicant is the only affected mineral rights owner or has leased the right to drill from the only affected mineral rights owner or has obtained a waiver from the affected mineral rights owner and the department does not object to the application, the department may approve the application immediately.

(c) If a well is being directionally drilled as part of a continuous drilling operation, the department may permit deviation of the well without providing a 20-day notice to all affected mineral rights owners in spacing units toward which the well is being directionally drilled. If a well is completed in a setback location, affected mineral rights owners will be notified and a public hearing will be held, if requested.

(4) Upon completion, suspension, or decommission of a well, whichever comes first, the permittee must file a complete directional survey, obtained by approved well surveying methods, with the department, together with other regularly required reports.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 3-1980, f. 2-29-80, ef. 3-1-80; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0144**

##### **Report of Perforating or Well Stimulation Treatment**

Within 60 days after either the perforating or well stimulation treatment of a well, the permittee must file a report with the department describing the perforation or stimulation procedures used and the results obtained.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0146**

##### **Vacuum Pumps Prohibited**

The use of vacuum pumps or other devices for the purpose of putting a vacuum on any gas- or oil-bearing stratum is prohibited, unless approved by the department.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0148**

##### **Production Practice**

Naturally flowing wells must be produced at a continuous uniform rate as far as is practical, in keeping with the current allowable, unless the board specifically permits stop-cocking to reduce the gas-oil ratio.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

## **632-010-0150**

### **Removal Of Casing**

No person may remove a casing, or any portion of a casing, from a well without first giving advance written notice and obtaining written approval from the department.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 4-1985, f. & ef. 11-20-85; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

## **632-010-0151**

### **Notification of Fire, Breaks, Leaks, or Blowouts**

(1) All persons controlling or operating any well, receiving tank, storage tanks, or receiving and storage receptacle where crude oil is produced, received, or stored must immediately notify the local fire marshal and the department, giving full details concerning all fires that occur at such oil or gas wells or tanks or receptacles on their property, and immediately report any breaks in tanks or receptacles and pipelines where oil or gas is escaping or has escaped.

(2) In all reports of fires, breaks, leaks, or escapes, or other accidents of this nature, the following information must be provided:

(a) The location of the well, tank receptacle, or line break by section, township, range, tax lot, and latitude/longitude, as well as the name of the landowner, so that the exact location can be readily located on the ground;

(b) The steps that have been taken, or are in progress, to remedy the situation reported; and

(c) The quantity of oil or gas lost, destroyed, or permitted to escape.

(3) In case any tank or receptacle is overfilled, the escape must be reported as in the case of a leak.

(4) Notify the department of all blowouts.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82 ; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

## **632-010-0152**

### **Multiple Completion of Wells**

Neither oil or gas may be produced from different strata through the same tubing without the prior approval of the department. The approval of the department will require evidence of adequate and complete separation as ascertained by pressure or circulated tests conducted at the time the packers are set. Subsequently, if packer leakage is suspected, the department may require the permittee to provide proof of adequate and complete separation of the pools involved in the completion, or perform a packer leakage test. The permittee must notify the department prior to performing a packer leakage test so that a

representative may be on site to observe. The department may also require the permittee to demonstrate the operation of multiple completion of a well.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0154**

#### **Determining and Naming Fields and Pools**

- (1) Field names and boundaries are determined by the board after establishment of evidence acceptable to the board that geologic, geographic, or other conditions warrant the assignment of a new field designation.
- (2) Wells are classified by the pool from which they produce, and pools are named by the department.
- (3) A permittee making new field or pool discoveries may recommend names to the department.
- (4) Any person dissatisfied with a new field designation or a well or pool classification or determination may request in writing a reconsideration by the board.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0156**

#### **Spacing Units, Notification**

- (1) Immediately upon the discovery of any pool, or at any time after the effective date of this rule, the board may prescribe spacing units for each pool and specify the size, shape, and location and establish field limits and special rules.
- (2) Before establishing spacing units, field limits, and special rules, the board will schedule and hold a hearing. Notification will be provided to mineral owners in the area surrounding the discovery well according to the following:
  - (a) In areas of the state with surveyed sections, and where the top of the productive interval in the well is at a depth of less than 7,000 feet below the surface, the department will notify mineral owners in the 160-acre quarter section where the well is located. If the top of the productive interval is located within 250 feet from any 160-acre quarter section line, the department will notify mineral owners in the affected adjacent quarter sections;
  - (b) In areas of the state with surveyed sections, and where the top of the productive interval in the well is at a depth of 7,000 feet or greater below the surface, the department will notify mineral owners in the 160-acre quarter section where the well is located and in the eight surrounding quarter sections;
  - (c) In areas of the state that are without surveyed sections, the department will notify mineral owners located within the boundary of a superimposed 640-acre section, with the well being in the center of the section, and the superimposed section will be oriented north-south.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0157**

#### **Exceptions to Special Rules**

- (1) The board may grant exception to special rules after holding a hearing, when necessary, on the basis of geology, productivity, topography, or environmental protection.
- (2) Before granting an exception for a well proposed within the setback distance set forth in a special rule, the department will notify mineral owners in the spacing unit where the well is proposed to be drilled and in the adjacent spacing unit(s) within the setback distance. A mineral owner may request a hearing by the board to consider the application. The owner must request hearing within 20 days of the date of the department notice or waive the right to one. If no written request for a hearing is made, the department may issue a permit for the proposed well. If the applicant is the only mineral owner in the adjacent spacing units, or has leased the right to drill from the mineral owner(s) in the adjacent spacing units, and has obtained a written waiver from these mineral owners to allow the drilling, the department may approve the application immediately.
- (3) If a mineral rights owner submits a written request for a hearing, it will be held within 30 days of receipt of request, provided the request is made within the 20-day period specified in section (2) of this rule. A mineral owner must request hearing within 20 days or waive the right to one. Any order by the department or board granting an exception to special rules under this rule will include provisions to prevent the production from the proposed well in excess of its just and equitable share of oil and/or gas in the pool.
- (4) If a permittee proposes to change the planned location of a well, such that it will not comply with the setback distances in a special rule, an exception necessary for the permit to remain valid may be granted according to the process above.
- (5) Whenever a uniform spacing plan has been prescribed for any pool, exceptions may be permitted if the board finds, after notice and hearing, that conditions within the pool are such that the special rules would be impracticable.

Stat. Auth.: ORS 516.090, 520.095, 522.019, 522.305, 522.405, 522.434 & 522.545

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0159**

#### **Underground Reservoirs for Natural Gas Storage**

Rules providing for well spacing and proration of gas do not apply to gas storage wells, injection wells, or monitor wells.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 3-1980, f. 2-29-80, ef. 3-1-80; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0161**

## Compulsory Integration Orders

(1) Definitions. For purposes of this rule:

(a) "Costs" include:

(A) "Drilling costs," which means all reasonable costs and expenses of drilling, re-drilling, reworking, deepening, plugging back, testing, and completing the well; and

(B) "Production costs," which means all reasonable on-site costs and expenses of production and production equipment for the well, including wellhead, but not pipeline costs and not overhead.

(b) "Participating owner" means each owner in the spacing unit who, prior to commencement of drilling operations, entered into a written agreement with the operator to share costs, production, and entitlements. However, where no such agreement has been reached, an owner, who prior to drilling tendered the operator a written agreement to pay not less than the owner's pro rata share of costs attributable to the owner's interest, as computed in section (2) of this rule, in the spacing unit in exchange for a share of production and entitlements, will be considered to be a participating owner and to have entered into a constructive agreement to that effect.

(2) Timing. In the absence of a voluntary integration agreement for the entire spacing unit, the board will enter an order integrating all mineral rights ownership interests in a spacing unit pursuant to ORS 520.220(2), at any time following the entry of an order establishing the spacing unit for a pool pursuant to ORS 520.210.

(3) Determination of Interests. A compulsory integration order determines the interest of each mineral rights owner in the spacing unit by dividing:

(a) The number of surface acres subject to an owner's mineral rights located in the spacing unit; by

(b) The total number of surface acres in the spacing unit.

(4) Content. The compulsory integration order will provide for the drilling, if necessary, and operation of the well on the spacing unit for the sharing of production and for the payment of costs.

(5) Effective Date. The compulsory integration order becomes effective on the date of initial production, unless the board establishes another date.

(6) Allocation of Costs and Earnings:

(a) The compulsory integration order will treat the operator and participating owners as a single entity. The operator-participating owners' entity is entitled to share production and pay costs, both in proportion to the total interest, as computed under section (2) of this rule, of the operator-participating owners' entity in the spacing unit. The express and constructive agreements between the operator and participating owner(s) control the allocations of production and costs attributable to the operator-participating owners' entity; and

(b) The compulsory integration order will allocate each non-participating owner a full share in production in proportion to the owner's interest in the spacing unit subject to royalty obligations, if any.

(c) The compulsory integration order will authorize the operator-participating owners' entity to withhold from each nonparticipating owner's share of production a pro rata share of drilling and production costs.

The pro-rata share of costs may also be subject to a multiplier established by the Board to compensate the operator-participating owners assumption of risks associated with production.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 3-1982, f. & ef. 8-16-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0162**

#### **Illegal Production**

No purchaser, producer, operator, permittee, or any other person may produce any crude oil, natural gas, or waste oil from any spacing unit or pool in this state except in accordance with the rules, regulations, and orders of the board.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0163**

#### **Limitation of Production**

In the absence of unitization, whenever the board, after notice and hearing, finds that waste as defined in ORS 520.005 is occurring or is imminent in any oil or gas field or pool, and that the production of oil or gas from such field or pool should be limited to prevent waste, then the board must issue an order limiting production from the field or pool and specify rules for the allocation or distribution of allowable production as provided for in ORS 520.005(11) and 520.015.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 3-1980, f. 2-29-80, ef. 3-1-80; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0164**

#### **Commingling of Production Prohibited**

The production from one pool must not be commingled with that from another pool in the same well before delivery to a purchaser, unless otherwise approved by the board.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0165**

#### **Allocation of Gas Pursuant to Special Pool Rules**

Whenever the full production from any pool producing natural gas is in excess of the market demand for gas from that pool, any permittee or interest owner, pursuant to ORS 520.115, may petition the board for a hearing and an order establishing a method of determining the market demand from the pool and of distributing that demand among the producing wells.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 3-1980, f. 2-29-80, ef. 3-1-80; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0166**

#### **Reports by Purchasers and Producers**

(1) Purchasers: Each purchaser or taker of any oil or gas from any well, lease, or pool must, on or before the last day of each month succeeding the month in which the purchasing or taking occurs, file with the department, on a form furnished by the department, a signed report of all oil or gas purchased or taken from any such well, lease, or pool during the preceding month.

(2) Producers: The producer or permittee of a well or spacing unit must, on or before the last day of each month succeeding the month in which the production occurs, file with the department, on a form furnished by the department or other form acceptable to the department a signed report of all production made by each well.

(3) If the purchaser and the producer are the same, only one report need be submitted.

(4) Information submitted in accordance with sections (1), (2), and (3) of this rule shall not be confidential.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0167**

#### **Maximum Efficient Rate Hearings**

A hearing to determine the maximum efficiency rate at which any pool in the state can produce oil and gas without waste may be held by the board on its own motion or at the request of any interested party.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 3-1980, f. 2-29-80, ef. 3-1-80; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0168**

#### **Use of Earthen Reservoirs**

Oil may not be stored or retained in earthen reservoirs or in open receptacles.



Stat. Auth.: ORS 520  
Stats. Implemented: ORS 520.095  
Hist.: GMI 1, f. 1-27-54; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0170**

##### **Reservoir Surveys**

The board, by order, may require the permittee of a well producing oil or gas to conduct periodic surveys of the reservoirs in the state that contain oil or gas or both. These surveys must be thorough and complete and conducted under the supervision of the department. Each survey must address the condition of the reservoirs containing oil or gas, or both, and the practices and methods employed by the permittee. Such investigation must include, but need not be limited to: the volume and source of crude oil and natural gas; the pressure of the reservoir as an average; the areas of regional or differential pressure; stabilized gas-oil ratios; and the producing characteristics of the field as a whole and of the individual wells within the field.

Stat. Auth.: ORS 520  
Stats. Implemented: ORS 520.095  
Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0172**

##### **Operators to Assist in Reservoir Surveys**

All permittees of oil or gas wells intercepting a reservoir are required to conduct a survey as required under OAR 632-010-0170 and to assist the representatives of the board and the department in making any and all tests, including bottom hole pressure and gas-oil ratio determinations, required by the board or department on any or all of such operators' wells.

Stat. Auth.: ORS 520  
Stats. Implemented: ORS 520.095  
Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0174**

##### **Measurement of Potential Open-Flow of Gas Wells**

The permittee must determine the potential open-flow of a gas well by U.S. Department of Energy back-pressure method unless the department approves in writing the use of an alternative method.

Stat. Auth.: ORS 520  
Stats. Implemented: ORS 520.095  
Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0176**

##### **Supervision of Open-Flow and Pressure Tests**

All tests made in determining the potential flow and shut-in, well-head, or bottom hole pressure of a gas well must be conducted by the permittee and may be monitored by the department to ensure that:

- (1) Initial flow to the surface is accomplished during daylight hours;
- (2) Gas will be flared during tests when feasible; and
- (3) Proper safety precautions are taken to prevent fire or explosion during tests.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0178**

#### **Duration of Tests**

The permittee must test for open-flow and pressure of completed gas wells at such intervals and continue for such time as is necessary to effect accurate determination. The permittee must file a report of all tests with the department within 60 days of the completed test.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0182**

#### **Gas to Be Metered**

- (1) Meters: All gas sold must be metered with a meter of sufficient capacity, provided that gas may be metered from a lease or unitized property as a whole, if it is shown that a ratable taking can be maintained. Meters are not required for gas produced and used on the lease for development purposes and lease operations.
- (2) Meter Charts and Records: Purchasers must keep meter charts and gas purchase records for a period of at least two years and make the charts and records available to the department.
- (3) Bypasses: Bypasses are not to be connected around meters or points where custody of the fluid is transferred.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0184**

#### **Direct Well Pressure**

Where gas release to the atmosphere is involved, the use of direct well pressure to operate any machinery is prohibited.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0186**

#### **Gas-Oil Ratio**

No well is permitted to produce gas in excess of the maximum ratio determined for a pool unless all gas produced in excess is returned to the pool.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0188**

#### **Gas-Oil Ratio Surveys and Reports**

Gas-oil ratios and surveys must be taken in the manner prescribed by the board for individual fields where gas-oil ratio limits have been fixed and in accordance with the rules prescribed for each individual pool.

(1) Flowing Wells Intermittently (Stop-Cocked) Produced: In computing the operating gas-oil ratio, the total volume of gas and the total barrels of oil that are produced in order to obtain the daily oil allowable must be used regardless of the flowing time in the 24-hour period.

(2) Gas Lift or Jet Wells: The total volume of gas to be used in computing the operating gas-oil ratio is the total output volume minus the total input volume.

(3) Pumping Wells: Gas withdrawn from the casing in an attempt to maintain a fluid seal, or for any other reason, must be added to the gas produced through tubing in computing the gas-oil ratio.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0190**

#### **Gas Utilization**

(1) A permittee must not allow hydrocarbon gas to escape to the atmosphere except for short periods outside of normal drilling operations and testing or flowing wells during workovers or repairs when an escape has been preauthorized by the department.

(2) Unless otherwise directed by the board, produced gas must be flared.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0192**

##### **Disposal of Brine or Salt Water**

In addition to the requirements of ORS 520.095(1), and in addition to applicable rules of the Oregon Department of Environmental Quality and the Oregon Water Resources Department, the following requirements apply to the disposal of brine or saltwater liquids:

(1) Disposal in pits, sumps or above ground tanks:

(a) Brine or saltwater may be disposed of by evaporation when impounded in excavated earthen pits, but only when the pits are lined with impervious material and a Water Pollution Control Facilities permit has been obtained from the Oregon Department of Environmental Quality;

(b) Impounding brine or saltwater in porous earthen pits is prohibited. Earthen pits used for impounding brine or saltwater must be constructed and maintained to prevent the escape of fluid;

(c) The department has the authority to prohibit the use of any pit that does not properly impound water and to order the proper disposal of water impounded in the pit;

(d) The level of brine or saltwater in earthen pits may not rise above the lowest point of the ground surface level. All pits must have a continuous embankment surrounding them sufficient to prevent surface water from running into the pit. An embankment may not be used to impound brine or saltwater; and

(e) Brine or saltwater impounded in earthen pits may not escape onto adjacent land or into waters of the state.

(2) Disposal by Injection: Saltwater may also be disposed of by injection into the strata from which it was produced or into other proved saltwater-bearing strata pursuant to an Underground Injection Control permit issued by the Oregon Department of Environmental Quality.

(3) Ocean discharge of saltwater may be permitted pursuant to a National Pollutant Discharge Elimination System permit issued by the Oregon Department of Environmental Quality.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

#### **632-010-0194**

##### **Water Injection and Water Flooding of Oil and Gas Properties**

(1) Application and Approval: The permittee of a well may inject water under pressure into the formation containing oil or gas for the purpose of obtaining oil or gas from the reservoir, upon application to and approval by the Oregon Department of Environmental Quality. No water injection or water flooding program may be instituted until it has been authorized by the Oregon Department of Environmental Quality.

(2) Casing and Cement: Wells used for the injection of water into the producing formation or repressuring wells must be cased with sound casing so as not to permit leakage, and the casing must be cemented in a manner such that damage will not be caused to oil, gas, or freshwater resources.

(3) Application, Contents, Notice, Objection, Hearing, and Approval:

(a) An application for use of water injection must be verified and filed with the department and include:

(A) The location of the injection well;

(B) The location of all oil and gas wells, including any wells and dry holes, and the names of mineral rights owners within one-half mile of the injection well;

(C) The formations from which wells are producing or have produced;

(D) The name, description, and depth of the formations to be injected;

(E) The elevations of the top of the oil- or gas-bearing formation in the injection well and the wells producing from the same formation within one-half mile radius of the injection well;

(F) The log of the injection well or similar available information;

(G) Description of the injection well casing;

(H) Description of the liquid, stating the kind, where obtained, and the estimated amounts to be injected daily;

(I) The names and addresses of the permittees; and

(J) Other information as the department may require to ascertain whether the injection or flooding may be safely and legally made.

(b) Applications may be made to include the use of more than one injection well on the same spacing unit, or on more than one spacing unit;

(c) Applications must be executed by all permittees who are to participate in the proposed water injection or water flooding plan.

(4) Notice of Commencement and Discontinuance of Water Injection or Water Flooding Operations:

(a) Immediately upon the commencement of water injection or water flooding operations, the applicant must notify the department;

(b) Within 10 days after the discontinuance of water injection or water flooding operations, the permittee must notify the department of the date of discontinuance and the reasons for the discontinuance; and

(c) Before any injection well is decommissioned, the permittee must submit an application to the department, per OAR 632-010-0198.

(5) Records. The permittee must keep the following records and make them available to the department:

(a) The amount of water injected into the injection wells;

(b) The total amount of water produced; and

(c) The total amount of oil or gas produced from the area flooded.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

## **632-010-0196**

### **Gas Injection of Oil and Gas Properties**

In addition to the requirements of ORS 520.095(1), OAR 632-010-0002 through 632-010-0240 and any other applicable statutes, orders, or rules, wells drilled for the purpose of storing natural gas in an underground reservoir must be drilled in a manner that protects the underground reservoir against contamination and against waste of natural gas.

(1) Application and Approval: After applying for and receiving approval, the permittee of any well or proposed well may inject gas under pressure into the formation containing water, oil or gas for the purpose of increasing production of oil or gas from the reservoir or for storing natural gas.

(2) Casing and Cement: Wells used for the injection of gas into the producing formation must be cased with sound casing so as not to permit leakage, and the casing must be cemented in a manner such that damage will not be caused to oil, gas, or freshwater resources. All injection of gas must be through tubing with a casing packer set at the lower end above the zone of injection, and the annular space between tubing and casing must be monitored to be sure the packer is holding. The requirement for a casing packer may be waived by the department for temporary test injection into a depleted or partially depleted gas pool when an existing well is utilized as the temporary injection well. Prior to temporary injection, the casing must be tested for mechanical integrity to verify that there are no leaks in the casing. The department must be notified of all mechanical integrity tests.

(3) Application, Contents, Notice, Objection, Hearing, and Approval:

(a) No gas may be injected into a well until approved by the department pursuant to application and notice as herein required;

(b) A written request for gas injection of oil and gas properties must be submitted to the department and include the following:

(A) The location of the injection well;

(B) The location and depth of all oil and gas wells and the names of mineral rights owners within a one-half mile radius of the injection well;

(C) The name, description, and depth of the formations from which wells are producing or have produced;

(D) The name, description, and depth of the formations to be injected;

(E) The depths of each formation into which gas is to be injected;

(F) The elevations of the top of the oil- or gas-bearing formation in the injection well and the wells producing from the same formation within one-half mile of the injection well;

(G) The log of the injection well, or similar available information;

(H) Description of the injection well casing;

(I) The estimated amounts to be injected daily and the proposed injection pressure;

(J) An engineering and geological study of the proposed injection site including:

(i) Characteristics of reservoir and caprock, including areal extent, thickness, and lithology;

(ii) Remaining gas or oil reserves of storage zones, including calculations, if applicable;

(iii) If an aquifer is to be injected, known water wells, aquifer extent, thickness, and water quality; and

(iv) Proposed use of monitor wells for the project;

(K) The names and addresses of the permittees; and

(L) Other information the department may require to ascertain whether the gas injection plan meets the requirements of law and does not pose a significant risk to human health or the environment.

(c) Applications may be made to include the use of more than one injection well on the same spacing unit or on more than one spacing unit; and

(d) Applications must be executed by all permittees who are to participate in the proposed gas injection plan.

(4) Notice of Commencement and Discontinuance of Gas Injection.

(a) The permittee must notify the department at least 10 days prior to the commencement of gas injection operations.

(b) Within 10 days after the discontinuance of gas injection operations, the permittee must notify the department of the date of discontinuance and the reasons for the discontinuance.

(c) Before any injection well is decommissioned, the permittee must submit an application to the department per OAR 632-010-0198.

(d) The above notification requirements do not apply to a gas storage facility except for the initial injection and filling of the reservoir and for the decommission of the storage reservoir.

(5) Records: The permittee must keep the following records and make them available to the department:

(a) The amount of gas injected into the injection wells;

(b) The amount of gas produced;

(c) The amount of oil produced from leases affected by the gas injection; and

(d) The well-head injection pressures.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; GMI 2-1996, f. & cert. ef. 7-10-96; DGMI 1-2013, f. & cert. ef. 3-21-13

### **632-010-0198**

#### **Abandonment, Unlawful Abandonment, Suspension, Well Plugging**

(1) Proper completion and decommission require adequate protection of the environment and of aesthetic qualities of the surface in the area of operation. (2) A well is properly completed for the purposes of this chapter when the permittee demonstrates to the satisfaction of the department that the well is capable of effective production or reinjection and appropriate equipment exists for flow testing and monitoring temperature, pressure or other subsurface conditions.

(3) A well is considered properly plugged and decommissioned, for the purposes of this chapter, when the conditions of ORS 520.005 to 520.991 and these rules are fulfilled and the person has shown to the satisfaction of the department that all proper steps have been taken to protect groundwater and surface water from contamination resulting from the drilling or drilling related activities and to prevent the commingling of fluids between zones or to surface.

(4) All holes must be plugged and all related disturbance must be reclaimed in accordance with these rules as soon as practical. A hole may not be left unplugged for longer than 30 days from the completion of drilling operations and prior to completion of the well without prior written approval from the department.

(5) Suspension: The department may authorize a permittee to suspend operations or remove equipment from a well for the period stated in the department's written authorization, upon receipt of a written request from the permittee showing good cause. The period of suspension may be extended by the department, upon written request made before expiration of the previously authorized suspension, accompanied by a statement by the permittee showing good cause.

(6) Decommission: Before any work is commenced to decommission a well drilled for oil or gas, the permittee must give notice to the department of the intention to decommission such well. If verbal notice is given but plugging is not planned within 10 days, written notice must also be given within 10 days. The notice must be given on forms supplied by the department and must contain the present condition of the well, proposed work, and such other information as reasonably may be required by the department.

(7) Unlawful Abandonment.

(a) After operations on or at a well have been suspended with the approval of the department pursuant to section (2) of this rule, if operations are not resumed within 30 days from the date specified in the suspension approval, the well is considered unlawfully abandoned unless the permittee has obtained a written extension from the department. Written application showing good cause is required for the extension to be considered.

(b) If a permittee has not paid the annual permit renewal fee, or any other fees owed, within 60 days after the anniversary date, the well is considered out of compliance, and the permittee is subject to enforcement for violation of these rules and the department may issue an order requiring the permittee to decommission the well.



(c) If a well is left idle for a period of 30 consecutive days without a written request for suspended status, the well is considered unlawfully abandoned.

(d) Upon any unlawful abandonment as defined in these rules, notice will be sent to the permittee and to the permittee's surety informing them the department has determined the well unlawfully abandoned.

(e) Any well unlawfully abandoned may be plugged, suspended, or otherwise repaired by the department using the bond or other financial security, and if the bond or other financial security is not sufficient, the department may bring an action or proceeding as authorized by ORS 520.175.

(8) Plugging Methods and Procedure: The methods and procedure for plugging a well are as follows:

(a) Producing strata and strata having fluid at greater than hydrostatic pressure must be plugged with cement from at least 50 feet below the top of each fluid-bearing zone to at least 50 feet above the top of each zone;

(b) A cement plug not less than 100 feet in length must be placed across the base of the freshwater-bearing strata in an uncased hole;

(c) When there is an open hole below the base of any casing, a cement plug not less than 100 feet in length must be placed to extend at least 50 feet above and at least 50 feet below the base of the casing; the department may require a pressure test on the casing shoe plug to document that an adequate seal was achieved.

(d) The top of all casing strings must be cut off at least 4 feet below ground surface, and casing and all annuli must be plugged with cement to a depth of at least 10 feet;

(e) The permittee will have the following options as to the method for placing cement in the hole:

(A) Dump bailer;

(B) Pump through tubing or drill pipe; or

(C) Other method approved by the department.

(f) The interval between plugs must be filled with an approved heavy mud-laden fluid.

(9) Reclamation of surface lands affected by these operations is intended to return the surface to pre-exploration condition and/or beneficial use that is compatible with the local land use designation for the parcel(s).

(10) Affidavit on completion: Within 60 days after a well is plugged, the permittee must file a written statement with the department certifying that the well was properly plugged and decommissioned.

(11) Wells Used for Fresh Water:

(a) When an oil or gas well is proposed to be decommissioned and may safely be used as a freshwater well and such use is desired by the landowner, the well need not be filled above the required sealing plug set below fresh water, provided authorization is obtained from the Oregon Water Resources Department;

(b) Application for leaving a well partially unplugged as a freshwater well must be submitted to the department by the landowner, together with evidence of a permit and security from the Oregon Water Resources Department or its statement that neither a permit nor a bond is required; and

(c) The permittee must leave a freshwater well in a condition approved by the department.

(12) The surety furnished by permittee may not be released until all procedures required by these rules have been completed and the department has authorized such release.

(13) The affected surface lands must be restored to a pre-exploration and/or beneficial use acceptable to the department, after consultation with the surface owner. Reclamation activities may include, but are not limited to replanting or reseedling of affected land for return to secondary beneficial use that is compatible with the land-use designation.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 3, f. 4-3-56; GMI 1-1982, f. & ef. 6-25-82; GMI 1-1985(Temp), f. & ef. 6-7-85; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

## **632-010-0205**

### **Drilling Surety Bond**

(1)(a) Every person who engages in the drilling, redrilling, or reworking of any well or disposal well must file and maintain with the department, on a form provided by the department a bond or alternative form of financial security in the sum of \$25,000 for each well drilled, redrilled, deepened, or reworked to a depth less than 10,000 feet, or \$50,000 for each well to a depth greater than 10,000 feet. The security must be filed with the department prior to the approval of an application to drill, redrill, deepen, or rework as required in OAR 632-010-0010. A security may be submitted individually for each well, or a blanket security may be filed as described in (b) below.

(b) In multi-well operations, a blanket bond or alternative form of security in the minimum amount of \$150,000 may be filed in lieu of individual bonds or securities. The blanket amount must be computed as the sum of the applicable individual bond or security amounts required for each well. The department may exclude the following wells from the blanket bond or security computation:

(A) Any well that has a gross annual wellhead production in dollars during the past twelve months that is greater than the amount of the required individual well bond. It is the responsibility of the well permittee to file for exclusions annually prior to the permit anniversary date.

(c) The bond or security must be executed by the permittee, as principal, and by a company authorized to do business as a surety insurer in the State of Oregon, as surety, and be conditioned upon the faithful compliance by the principal with the statutes, rules, and orders of the department and the board.

(2) Any bond or security submitted as required by this section may, with the consent of the department, be terminated and cancelled and the surety relieved of all obligations thereunder. However, the department will not consent to termination and cancellation of any bond until the well or wells covered by such bond have been properly plugged and decommissioned including site reclamation, with the approval of the department, or another valid bond has been submitted and approved.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1-1979, f. & ef. 1-25-79; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; GMI 3-1997, f. & cert. ef. 12-3-97; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

## **632-010-0210**

### **Disposal of Solid and Liquid Wastes**

(1)(a) Permit stipulations by the Oregon Department of Environmental Quality regarding disposal of solid and liquid wastes generated by drilling, redrilling, deepening, or reworking operations are deemed to be a requirement of every permit issued under OAR 632-010-0010.

(b) All wells used for disposal of solid and liquid wastes must be equipped with tubing and packers and be tested for mechanical integrity at least once every five years to determine that there are no leaks in the casing, tubing, or packers, and that there is no fluid movement into an underground source of water, other than that from which the fluid was produced, unless otherwise approved by the department. Acceptable tests include pressuring the tubing and casing annuli to demonstrate the integrity of the casing, tubing, and packers. Tracer surveys, noise logs, temperature logs, spinner surveys, or other methods approved by the department may be used to detect water movement adjacent to the wellbore. The department must be notified of all mechanical integrity tests, and the results submitted as required by OAR 632-010-0017.

(2) Once field development is initiated, a separate permit is required from the Oregon Department of Environmental Quality for disposal of liquid and solid wastes.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1-1979, f. & ef. 1-25-79; GMI 4-1985, f. & ef. 11-20-85; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

## **632-010-0220**

### **Measurement of Oil**

The volume of production of oil must be computed in terms of barrels of clean oil on the basis of properly calibrated meter measurements or tank measurement of oil level differences made and recorded to the nearest quarter inch, using 100 percent tank capacity tables, subject to the following corrections:

(1) Correction for Impurities: The percentage of impurities (water, sand, and other foreign substances not constituting a natural component part of oil) must be determined to the satisfaction of the department, and the observed gross volume of oil must be corrected to exclude the entire volume of such impurities.

(2) Temperature Correction: The observed volume of oil corrected for impurities must be further corrected to the standard volume at 15.55 degrees Centigrade (60 degrees Fahrenheit), in accordance with industry standards or any revisions thereof approved by the department.

(3) Gravity Determination: The gravity of oil at 15.55 degrees Centigrade (60 degrees Fahrenheit) must be determined in accordance with A.S.T.M. standards or any revisions thereof and any supplements thereto or any close approximation thereof approved by the department.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1-1979, f. & ef. 1-25-79; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

## Special Rules, Mist Gas Field

### 632-010-0225

#### Spacing Plan

(1) For purposes of this section, the Mist Gas Field refers to the following area:

(a) Sections 1 through 18, 20 through 29, 32 through 36 of T. 5 N., R. 4 W.;

(b) Sections 1, 2, 11, 12, of T. 5 N., R. 5 W.;

(c) Sections 3 through 10, 14 through 23, 25 through 36 of T. 6 N., R. 4 W.;

(d) Sections 1 through 36 of T. 6 N., R. 5 W.;

(e) Section 31 of T. 7 N., R. 4 W.; and

(f) Sections 13 through 36 of T. 7 N., R. 5 W., W.M.

(2) The minimum spacing for gas wells in the Mist Field is 160 acres when the top of the producing zone is less than 7,000 feet in vertical depth.

(3) The minimum spacing for gas wells in the Mist Field is 640 acres when the top of the producing zone is 7,000 feet or more in vertical depth.

(4) The spacing units are based upon the federal land grid of sections and quarter sections, or projected extensions of the grid if the affected lands are not surveyed.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1983, f. & ef. 12-8-83; GMI 4-1985, f. & ef. 11-20-85; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

### 632-010-0230

#### Location of Wells

The completion location of each permitted well to be drilled on any spacing unit is the location of the well at the top of the producing horizon. For gas wells, the completion location of the well may not be located nearer than 250 feet from the unit boundary and 500 feet from the nearest producing well from the same pool.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1980, f. 2-29-80, ef. 3-1-80; GMI 4-1985, f. & ef. 11-20-85; DGMI 1-2013, f. & cert. ef. 3-21-13

### 632-010-0235

#### Exceptions

The department may grant exceptions to OAR 632-010-0225 and 632-010-0230 after holding a hearing, based on the geology, productivity, topography, enhancement requirements, or environmental protection.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1980, f. 2-29-80, ef. 3-1-80; GMI 4-1985, f. & ef. 11-20-85; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13