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**Rules of**  
**Department of Natural Resources**  
**Division 23—Division of Geology and Land Survey**  
**Chapter 6—Test Hole Construction and Plugging Code**

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**Title 10—DEPARTMENT OF  
NATURAL RESOURCES**

**Division 23—Division of Geology  
and Land Survey**

**Chapter 6—Test Hole Construction and  
Plugging Code**

**10 CSR 23-6.010 Definitions**

*PURPOSE: This rule specifically defines words used in Chapter 6 concerning test wells, otherwise the definitions contained in 10 CSR 23-1.010 apply.*

(1) Test hole means a hole drilled in the explorations for minerals or for geologic data. This includes, but is not limited to, stratigraphic holes drilled to obtain geologic information for structural studies, seismic shot holes and industrial mineral exploration holes.

*AUTHORITY: sections 256.606 and 256.626, RSMo Supp. 1991.\* Original rule filed Aug. 17, 1993, effective March 10, 1994.*

*\*Original authority: 256.606, RSMo 1991 and 256.626, RSMo 1985, amended 1991.*

**10 CSR 23-6.020 General Protection of  
Groundwater Quality and Resources**

*PURPOSE: This rule protects the overall groundwater quality and resources in Missouri.*

(1) Differences Between Wells. The rules contained in 10 CSR 23-6 cover test holes drilled for obtaining geologic data or mineral exploration data. Test holes differ from water wells, monitoring wells and heat pump wells in that the information obtained from test holes and their locations are often proprietary information. Test holes, in many cases, are smaller in diameter than water wells. In addition, test holes are drilled and are then quickly plugged.

(2) Test holes that are to be converted into other types of wells. Test holes may be converted into a well at the request of the landowner. All requests must be made in writing to the division, by the landowner. The well must meet the applicable standards contained in 10 CSR 23-1–10 CSR 23-6.

*AUTHORITY: sections 256.606, 256.615 and 256.626, RSMo 1994.\* Original rule filed Aug. 17, 1993, effective March 10, 1994. Amended: Filed Nov. 1, 1995, effective June 30, 1996.*

*\*Original authority: 256.606 and 256.615, RSMo 1991 and 256.626, RSMo 1985, amended 1991.*

**10 CSR 23-6.030 Location of Test Holes**

*PURPOSE: This rule sets criteria for the location of test holes.*

(1) The need to obtain site-specific data dictates the location of test holes. If the hole needs to be located closer than distance requirements stated in 10 CSR 23-3.010, a variance must be obtained before the hole is drilled (see 10 CSR 23-1.040 for details on variance issuance).

*AUTHORITY: sections 256.606 and 256.626, RSMo Supp. 1991.\* Original rule filed Aug. 17, 1993, effective March 10, 1994.*

*\*Original authority: 256.606, RSMo 1991 and 256.626, RSMo 1985, amended 1991.*

**10 CSR 23-6.040 Construction Standards  
for Test Holes**

*PURPOSE: This rule describes the minimum standards for a properly constructed test hole.*

(1) Standards for Construction of Test Holes. All test holes shall be constructed in a manner that will conserve and protect the groundwater resources and not be a source or channel of contamination or pollution to any aquifer.

(2) Casing Material. All casing used in the construction of a test well must meet or exceed standards set out in 10 CSR 23-3.030.

(3) Casing Depth. If permanent surface casing is set, it must be set at least fifty feet (50') into bedrock. Temporary surface casing lengths may be determined by the permitted contractor.

(4) Temporary Cap. All holes must be capped during the period they remain unplugged.

(5) Hole Size. Test hole size will be determined by the person owning the mineral rights or designing the hole.

(6) Approved Grout. When a hole is grouted, procedures and materials set out in 10 CSR 23-3.030(3) and (4) must be followed.

*AUTHORITY: sections 256.606 and 256.626, RSMo 1994.\* Original rule filed Aug. 17, 1993, effective March 10, 1994. Amended: Filed Nov. 1, 1995, effective June 30, 1996.*

*\*Original authority: 256.606, RSMo 1991 and 256.626, RSMo 1985, amended 1991.*

**10 CSR 23-6.050 Plugging of Test Holes**

*PURPOSE: This rule establishes criteria for the proper procedures to be followed when plugging a test hole.*

(1) All test holes, except those that are converted to other types of wells are to be plugged in accordance with this chapter within sixty (60) days from the date that the well was drilled. Extensions of this time limit are available on a case-by-case basis from the division.

**(A) Plugging the Test Hole.**

**1. Test holes with no surface casing.**

A. Test holes must be filled with grout via tremie to within two feet (2') of the ground surface. If the Davis Formation is penetrated, an expanding packer must be placed in the bottom portion of the formation and grouted to within two feet (2') of the surface.

B. The top two feet (2') of hole must be filled with soil.

C. A registration report form must be submitted to the division which documents the method of plugging the test hole.

**2. Test holes with removable surface casing pipe.**

A. If the Davis Formation is penetrated, an expanding packer must be set in the bottom portion of the formation.

B. The hole must be filled with grout from the packer to the bottom of the interior casing pipe via tremie pipe. This grout plug must extend from near the bottom of the Davis Formation to at least fifty feet (50') above the top of the Davis Formation.

C. The hole must be backfilled with chlorinated clean fill such as varied sized agricultural lime, gravel or sand to the base of the surface casing pipe, while the interior casing is being pulled.

D. A fifty-foot (50')-grout plug must be pumped through the surface casing pipe as it is being removed, filling the hole to the top of bedrock.

E. Chlorinated clean fill must be used to backfill the hole above the upper plug while the surface casing pipe is being removed. The clean fill must extend from the top of the grout plug to within two feet (2') of the surface.

F. The top two feet (2') of the hole must be filled with on-site soil.

G. A registration report form must be submitted to the division which documents the method of plugging.

H. The test hole may be filled from total depth to surface with grout.

**3. Test holes with grouted nonremovable surface casing.**



A. Cut off casing three feet (3') below ground surface making a hole at least two feet (2') in diameter larger than the surface casing.

B. Fill the hole from total depth to within two feet (2') of the surface with grout.

C. Fill remaining hole with soil.

D. Submit a registration report form to the division.

(2) Test Holes Drilled to Expand Quarrying and Surface Mining Operations. When test holes are drilled in the process of expanding quarrying and surface mining operations and are destroyed within one (1) year by the advance of the mine or quarry, they are required to be plugged by only inserting a temporary surface plug into the hole which will prevent surface water from entering the hole. Reporting requirements are not required for these temporary holes. If these test holes are drilled deeper than the quarry or mine floor, they must be plugged from the mine floor to the total depth of the hole with approved grout. If these holes are not destroyed by the mining process within one (1) year then the requirements of subsection (1)(A) must be met. Extensions of this time limit will be considered on a case-by-case basis by the division.

(3) Test Holes Drilled in Association with Clay Mining Operations, Shallow Industrial Minerals Exploration and Miscellaneous Geologic Data Holes.

(A) When the test hole is drilled that bottoms in an impermeable fire clay deposit a temporary surface plug must be inserted which prevents surface water from entering the hole. This type of well is exempted from reporting requirements.

(B) When a test hole is drilled that bottoms at the bedrock-unconsolidated material contact or above, it must be plugged when no longer needed for exploratory purposes. If the test hole is less than one hundred feet (100') in depth and does not encounter a potable water horizon, the test hole must be plugged by filling the hole from bottom to top with the type of uncontaminated material removed from the hole or other approved grout. A registration report is required per site for holes drilled and plugged that are greater than twenty feet (20') in depth. One (1) registration fee is required per report form for this type of hole. If a test hole is less than twenty feet (20') in depth, it must be filled with the material removed from the hole as soon as it is no longer needed for exploratory purposes. Test holes less than twenty feet (20') in depth are exempted from the rules. These wells can not be used in any

way relative to monitoring well sites.

(C) If a test hole is greater than one hundred feet (100') in depth, it must be plugged as stated in 10 CSR 23-6.050(1).

*AUTHORITY: sections 256.606, 256.614, 256.615 and 256.626, RSMo 1994.\* Original rule filed Aug. 17, 1993, effective March 10, 1994. Amended: Filed July 13, 1994, effective Jan. 29, 1995. Amended: Filed Nov. 1, 1995, effective June 30, 1996.*

*\*Original authority: 256.606, RSMo 1991; 256.614, RSMo 1985, amended 1991; 256.615, RSMo 1991; and 256.626, RSMo 1985, amended 1991.*

### 10 CSR 23-6.060 Confidentiality of Registration Report Form

*PURPOSE: This rule sets standards to ensure that registration report forms are held confidential for at least ten years as required in section 256.615, RSMo.*

(1) Confidentiality of Registration Report Forms. All registration report forms submitted to the division which document the plugging of holes drilled in the exploration for minerals or for geologic data must be held strictly confidential for a period of ten (10) years from the date of submittal. These holes include exploration drill holes for economic and industrial minerals and geologic data but do not include monitoring wells. The person submitting the report or the person for whom the well was drilled may request, in writing, that this information remain confidential for an additional five (5) years and the division shall grant this request. The submittal of this type of registration report form and fee is required within one hundred eighty (180) days of completion of the plugging of the test hole. Upon successful review of the registration report form, which indicates that the hole was plugged according to the rules, a registration number will be sent to the property owner which documents that the hole is plugged according to minimum standards.

(2) Since test holes are usually temporary in nature and are required to be plugged quickly after drilling, they are exempted from the certification process.

*AUTHORITY: sections 256.606, 256.614, 256.615 and 256.626, RSMo Supp. 1991.\* Original rule filed Aug. 17, 1993, effective March 10, 1994.*

*\*Original authority: 256.606, RSMo 1991; 256.614, RSMo 1985, amended 1991; 256.615, RSMo 1991; and 256.626, RSMo 1985, amended 1991.*