

**ADOPTED REGULATION OF THE
COMMISSION ON MINERAL RESOURCES**

LCB File No. R134-23

EXPLANATION – Matter in *italics* is new; matter in brackets ~~omitted material~~ is material to be omitted.

AUTHORITY: §§ 1 and 2, NRS 534B.120.

A REGULATION relating to dissolved mineral resources; eliminating requirements that a well driller be present at the site of certain drilling at all times when a drill rig is in operation; revising requirements relating to the removal of any pipe or tubing used for ground control or sampling; and providing other matters properly relating thereto.

Legislative Counsel's Digest:

Existing law requires the Commission on Mineral Resources to adopt regulations governing the drilling and operation of dissolved mineral resource exploration wells and dissolved mineral resource exploration boreholes. (NRS 534B.120) Existing regulations require a person who drills wells to be present at the site of the drilling of a dissolved mineral resource exploration borehole or dissolved mineral resource exploration well at all times when the drill rig is in operation and when any activity involving the construction, reconditioning or plugging of the borehole or well is conducted. (NAC 534B.100) **Section 1** of this regulation eliminates the requirement that the well driller be present at the site of the drilling at all times when the drill rig is in operation.

Existing regulations require any pipe or tubing used for ground control or sampling to be removed by a well driller before plugging a dissolved mineral resource exploration borehole. (NAC 534B.125) **Section 2** of this regulation instead requires a well driller to use his or her best efforts to remove the pipe or tubing before plugging the borehole.

Section 1. NAC 534B.100 is hereby amended to read as follows:

534B.100 A well driller:

1. Must be:

(a) Licensed to drill wells pursuant to NRS 534.140; and

(b) Present at the site of the drilling of a dissolved mineral resource exploration borehole or

dissolved mineral resource exploration well ~~at all times when the drill rig is in operation and~~

when any activity involving the construction, reconditioning or plugging of the borehole or well is conducted. If the Division determines that drilling operations occurred during any period in which a well driller was not present at the site:

(1) The Division may order the drilling operation to cease and conduct an investigation; and

(2) The drilling operation may not recommence until the Division approves the recommencement of the drilling operation.

2. Shall ensure that the drilling of the dissolved mineral resource exploration borehole or dissolved mineral resource exploration well complies with:

(a) The terms and conditions of the notice of intent approved by the Division or permit issued by the Division, as applicable; and

(b) The requirements of all federal, state and local agencies which have jurisdiction over the land on which the dissolved mineral resource exploration borehole or dissolved mineral resource exploration well is drilled.

3. Shall carry his or her well-drilling license when he or she is present at the site of the drilling and produce the license when requested to do so by a representative of the Division.

4. Shall have in his or her possession at the site of the drilling the documentation of the approval by the Division of the notice of intent to drill or a permit issued by the Division, as applicable, and shall produce such documentation upon request by a representative of the Division.

Sec. 2. NAC 534B.125 is hereby amended to read as follows:

534B.125 1. A dissolved mineral resource exploration borehole must be plugged by a well driller not later than 60 days after the borehole is drilled unless an application for a permit for a

dissolved mineral resource exploration well is filed not later than 60 days after the completion of the drilling of the borehole.

2. If an application for a permit for a dissolved mineral resource exploration well is denied by the Division, the dissolved mineral resource exploration borehole must be plugged not later than 30 days after the date that the Division denies the application for the permit.

3. ~~Any~~ *A well driller shall use his or her best efforts to remove any* pipe or tubing used for ground control or sampling ~~must be removed by the well driller~~ before plugging a dissolved mineral resource exploration borehole.

4. A dissolved mineral resource exploration borehole must be plugged:

(a) Except as otherwise provided in subsection 5, if the uppermost saturated groundwater layer is above the bottom of the borehole:

(1) By placing concrete grout, cement grout, neat cement or bentonite grout by tremie pipe in an upward direction from the bottom of the borehole to within 20 feet of the surface and by placing concrete grout, cement grout, neat cement or bentonite grout from 20 feet below the surface to the surface;

(2) By placing bentonite chips specifically designed to plug boreholes from the bottom of the dissolved mineral resource exploration borehole to within 20 feet of the surface and by placing concrete grout, cement grout or neat cement from 20 feet below the surface to the surface; or

(3) By placing any of the plugging material described in this subsection from the total depth of the dissolved mineral resource exploration borehole to 50 feet above the uppermost saturated groundwater stratum and by placing concrete grout, cement grout or neat cement from 20 feet below the surface to the surface.

(b) If the uppermost saturated groundwater stratum is below the bottom of the dissolved mineral resource exploration borehole by:

(1) Backfilling the dissolved mineral resource exploration borehole from the bottom of the borehole to within 20 feet of the surface with uncontaminated soil; and

(2) Placing concrete grout, cement grout or neat cement from 20 feet below the surface to the surface.

5. If the concrete grout, cement grout, neat cement, bentonite grout or bentonite chips are not brought to within 20 feet of the surface pursuant to paragraph (a) of subsection 4, the well driller must:

(a) Measure the depth of the top of the lower plug with the appropriate equipment after he or she has allowed sufficient time for the lower plug to set up;

(b) Continue to install concrete grout, cement grout, neat cement, bentonite grout or bentonite chips until the top of the lower plug remains at least 50 feet above the top of the uppermost saturated groundwater stratum;

(c) Install uncontaminated fill material or concrete grout, cement grout, neat cement, bentonite grout or bentonite chips from the top of the lower plug to within 20 feet of the surface; and

(d) Place concrete grout, cement grout or neat cement from 20 feet below the surface to the surface.

6. If bentonite chips or uncontaminated soil are placed in the dissolved mineral resource exploration borehole, the chips or soil must be screened to eliminate the fines. The bentonite chips must be placed in the dissolved mineral resource exploration borehole by tremie pipe.

7. If there is evidence that water-draining formations or water-bearing formations of different water quality or hydraulic head were encountered during the original construction of the dissolved mineral resource exploration borehole and bentonite chips or bentonite grout is used as the plugging material, the well driller must, in addition to any other applicable requirements of this section, place neat cement across the water-confining formations so that the plugging fluid penetrates the geologic formation to prevent the vertical movement of water. Any pipe or tubing that does not break free and occludes the placement of neat cement across a water-confining formation must be perforated so that the plugging fluid penetrates the annular space and the geologic formation in that interval to isolate formations and to protect the fluids in those formations from interzonal migration.

8. The owner and lessor of the land on which a dissolved mineral resource exploration borehole is located, the operator and the well driller are jointly and severally responsible for plugging a dissolved mineral resource exploration borehole.

9. A plugging report must be filed with the Division not later than 30 days after the plugging of the borehole is completed by the well driller or operator, on a form designated by the Division, and signed by the well driller. The report must include, without limitation, documentation that the dissolved mineral resource exploration borehole was properly plugged.

10. The Division shall post all plugging reports for dissolved mineral resource exploration boreholes on the Internet website of the Division.