

BOARD OF EXAMINERS OF WATER WELL CONSTRUCTION AND PUMP INSTALLATION CONTRACTORS
 Division of Water Resources

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POOR QUALITY WATER FROM COAL ZONES

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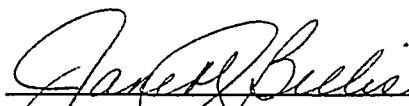
Hal D. Simpson, P.E.
 Secretary

The purpose of Bulletin 2000-2 is to focus on water produced from zones containing coal deposits, distinguish "poor quality" ground water from "contaminated" ground water, and to encourage contractors and well owners to consult and reach agreement on an option of having the coal bearing zones sealed out of the production interval. Such zones should always be sealed out of the well when they do not occur within the aquifer that is permitted for production.

Bulletin 2000-2 addresses the issue of "poor quality" water often found in coal bearing intervals of some aquifers and the suitability of the use of that water from the well. Naturally occurring poor quality water is not, in and of itself, necessarily "contaminated" ground water. However, when such water is introduced into or mixed with water of better quality in other zones, the poor quality water may degrade the quality of water in the aquifer as a whole. The Board of Examiners of Water Well Construction and Pump Installation Contractors encourages contractors to offer the owner of a well that may penetrate coal zones an opportunity to consult and reach agreement with the well construction contractor to have those zones excluded from the producing interval of the well.

A contractor should advise the well owner of the possibility of penetrating coal zones containing poor quality water and provide the well owner the option of having such water sealed out of the well. The contractor should know and explain potential problems the well owner may experience if poor quality water from a coal zone is not sealed out of the well, i.e. higher sulfur content (corrosive to pipes, fittings and fixtures as H₂SO₄), dissolved hydrogen sulfide gas (H₂S "rotten eggs") and possibly methane gas (explosive) and to suggest possible methods of treating the water and venting the gases as an alternative to the cost for sealing the water out of the well. However, it should ultimately be the well owners decision as to which remedy is needed for his particular water uses. Upon consideration of the cost of buying, installing and maintaining water treatment equipment, and the continuous attention and periodic replacement required for filters, many well owners having a well constructed for their household use may elect to incur the "one time" expense of eliminating a poor quality water problem at the time the well is constructed. In some instances, the well owner may anticipate a water use that doesn't require water treatment (stock water, industrial uses, etc.) and therefore, may elect to include water from the coal zone in the production from the well. Municipal well owners may already have treatment units incorporated into their water system and may not need to have the water from coal zones sealed out. In any event, it is the well owner's decision to make upon being advised of the possibility of encountering the water, being informed of the potential problems of its use, and being provided some alternatives to remedy the problem.

In conjunction with Rules 10.1.1, 10.1.2, and 10.4.10.1 of the Water Well Construction Rules(2000), it is the opinion of the Board of Examiners of Water Well Construction and Pump Installation Contractors that, prior to or during construction, the drilling contractor should advise the well owner that coal intervals containing poor quality water may be or have been penetrated by the borehole in the production zone of the aquifer. Consultation with the well owner is necessary to determine if such intervals need to be sealed off during construction of the well.


 Janet Bellis, Chair
 Board of Examiners of Water Well Construction
 and Pump Installation Contractors