

From: Leslie Savage  
Sent: Wednesday, November 27, 2013 11:52 AM  
To: Hanlon, Edward  
Subject: FW: Reminder: SAB holding public teleconference for EPA's Hydraulic Fracturing Study

At the November 20, 2013, Science Advisory Board's Hydraulic Fracturing Research Advisory Panel public teleconference, Mr. Steven Lipsky intimated that the Railroad Commission of Texas's recent amendments to its drilling, casing, cementing, and well control rule (16 Texas Administrative Code §3.13, or Rule 13) had made requirements for cement behind casing less stringent. Mr. Lipsky's discussion centered around the inclusion of the term "commercial" in the definition of the term "productive zone."

The recent Rule 13 amendments become effective on January 1, 2014. Rule 13 has for many years required that an operator isolate all productive zones with cement behind the casing. The amendments do not change that requirement.

The current definition of "productive horizon" is as follows:

Productive zone--Any stratum known to contain oil, gas, or geothermal resources in commercial quantities in the area.

The definition includes the concept of "commercial quantities," because the purpose of requiring that these zones be isolated is to protect other oil- and gas-bearing zones as well as to prevent migration up the annulus.

The proposed amendments published by the Commission in the September 7, 2012, issue of the Texas Register included an amendment to the definition of "productive horizon." The Commission proposed to replace the term "productive horizon" with the term "productive zone" and to define that term as "any stratum known to contain oil, gas, or geothermal resources or formation fluids in the area or capable of allowing migration of oil, gas, or formation fluids up the annulus." The Commission proposed to delete the term "commercial quantities" and to expand the definition to include the concept of potential flow zone, to make clear that this type of zone also should be isolated. In response to numerous comments that this definition was much too broad, the Commission returned to the original definition, and instead, proposed a new, separate definition for "potential flow zone" to address those zones that can cause bradenhead pressure in an annulus when the zone is not isolated.

The definitions contained in Rule 13 as adopted and to become effective on January 1, 2014 are as follows:

Productive zone--Any stratum known to contain oil, gas, or geothermal resources in commercial quantities in the area.

Potential flow zone--A zone designated by the director or identified by the operator using available data that needs to be isolated to prevent sustained pressurization of the surface casing/intermediate casing or production casing annulus sufficient to cause damage to casing

and/or cement in a well such that it presents a threat to subsurface water or oil, gas, or geothermal resources. RRC will maintain a list of known zones by district and county that are considered potential flow zones and make this information available to all operators. RRC will revise this list as necessary based on information provided, or otherwise made available, to RRC.

Effective January 1, 2014, Rule 13 requires that all usable quality water zones be isolated and sealed off to effectively prevent contamination or harm, and all productive zones, potential flow zones, and zones with corrosive formation fluids be isolated and sealed off to prevent vertical migration of fluids, including gases, behind the casing.

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