

Goetze, Phillip, EMNRD

From: Goetze, Phillip, EMNRD
Sent: Thursday, March 17, 2016 10:42 AM
To: Gary Larson (glarson@hinklelawfirm.com); Scott Hall (shall@montand.com)
Cc: Jones, William V, EMNRD; McMillan, Michael, EMNRD; Davidson, Florene, EMNRD; Holm, Anchor E. (aholm@slo.state.nm.us); Brooks, David K, EMNRD; Lowe, Leonard, EMNRD
Subject: FW: BC Operating - Grande State #1 SWD Proposed Plugback

RE: Case No. 15442; Submitted Statement of the State Land Office

Gentlemen:

The State Land Office has provided the following written comments assessing the latest C-108 application for this proposed disposal well. The SLO is not a protestant in this case, but is an "affected person" based on the original application filed for administrative review. OCD does consider these comments relevant and has made this document part of the case record. This notification is to provide your clients the opportunity to review SLO input for consideration in the upcoming case. Please contact me with any questions regarding this matter. PRG

Phillip R. Goetze, PG

Engineering and Geological Services Bureau
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
Direct: 505.476.3466
e-mail: phillip.goetze@state.nm.us



From: Holm, Anchor [mailto:aholm@slo.state.nm.us]
Sent: Thursday, March 17, 2016 9:55 AM
To: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Cc: Martin, Ed <emartin@slo.state.nm.us>; Warnell, Terry G. <twarnell@slo.state.nm.us>
Subject: BC Operating - Grande State #1 SWD Proposed Plugback

Phil,

Yesterday, I received the revised copy of the C-108 SWD Application for the Grande State #1 (30-015-31910) by BC Operating. Their Proposed SWD interval is from 2,780' to 4,900'. In this wellbore the bottom of salt was recorded at a depth of **2600'**, which must be protected from solution by disposed produced waters. Typically, a minimum buffer of at least 300 feet is desired by the State Land Office in order to protect the surface Trust Lands from potential subsidence caused by salt water disposal.

Therefore, the State Land Office recommends that the top of injection be lowered to a depth of at least 2,900'. Also, in the well located on the same lease about ½ mile east of the proposed SWD, the bottom of salt was reported at 2,775'. This suggests that a top of injection of 3,075' may be more prudent.

An additional concern is the construction of the Grande State #1 wellbore. It did not have the annulus outside the 7" casing cemented above 5,650'. The 9-7/8" surface casing was set at 2,768', only a short distance below the bottom of Salt reported in the subject wellbore. However, the offset well having a top of salt reported at 2,775', which is deeper than the surface casing setting depth in the Grande State #1 wellbore.

Therefore, the State Land Office recommends that the proposed cement squeeze of this annulus be modified from a target top of cement at a depth of 2,266' to a requirement to **circulate cement to surface**. The reasoning is that the cement job at the shoe of the surface casings in this area frequently do not fully protect the salt from being dissolved by SWD operations. By placing additional hydraulic head on the surface casing shoe during the squeeze cement job, the strength of the seal at the shoe will be significantly improved.

Respectfully,

Anchor E. Holm
Geoscientist/Petroleum Engineering Specialist
Oil Gas & Minerals Division
505.827.5759
New Mexico State Land Office
310 Old Santa Fe Trail
P.O. Box 1148
Santa Fe, NM 87504-1148
aholm@slo.state.nm.us
nmstatelands.org



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