

Regulatory Citation(s):

78.83b. Casing and cementing – lost circulation.

(a) If cement used to permanently cement the surface or coal protective casing is not circulated to the surface despite pumping a volume of cement equal to or greater than 120% of the calculated annular space, the operator shall determine the top of the cement, notify the Department, and meet one of the following requirements as approved by the Department.

Question:

How long does an operator have to wait before running a CBL? Can they start drilling in 8 hours and complete the log prior to setting the next string of casing?

Response:

A CBL may be useful for determining the top of cement in situations where surface returns are recommended or expected but not achieved. Other logging methods may also be helpful in such a scenario.

The United States EPA states that cement should be allowed to develop full compressive strength prior to running CBL. They suggest 72 hours as a conservative rule-of-thumb. Running such a log prior to allowing the cement to achieve full compressive strength may show poor bonding (Ground Water Section Guidance No. 34). The Department currently must authorize continued drilling, so an operator may not start drilling until the Department is notified and approval to continue operations is granted.

One risk of drilling out casing and extending the wellbore prior to running a cement bond log is that if cement integrity is compromised, extending the wellbore may expose defective cement to natural open flow pressures and other formational fluids.