Regulatory Citation(s):

78.83c. Intermediate and production casing.

(b) If the well is to be equipped with an intermediate casing, centralizers shall be used and the casing shall be cemented to the surface by the displacement method. Gas may be produced off the intermediate casing if a shoe test demonstrates that all gas will be contained within the well and a relief valve is installed at the surface that is set less than the shoe test pressure. The shoe test pressure shall be recorded in the completion report.

Question:

Due to the new regulations preventing a long surface string through both fresh groundwater and brackish groundwater, shallow operators who historically set one string through fresh groundwater and the permeable Clarion Sand, which produces a significant amount of brine, are now forced to set two strings. In a typical scenario, they will run 300 feet of surface casing and 500 feet of intermediate casing in a 1000 foot well. If they wish to produce off of the intermediate string, what does the shoe test entail?

Response:

In this case, the second string would actually be considered production casing and not intermediate casing. By virtue of the definition, intermediate casing must be surrounded by a larger diameter string – oftentimes the surface string – and it must surround a smaller diameter string – the production string or another intermediate string. Since only two strings aside from conductor pipe are described in the scenario above, the second string by definition is production casing and the shoe pressure test is not required.

Although regulations dictating the installation of production casing can be found in Section 78.83c., an alternate method under Section 78.75 is considered acceptable for addressing this specific scenario. An <u>example of the alternate method (PDF)</u> is provided for reference.