



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT

DEP USE ONLY
Application Tracking # 1445853

Alt Site ID: CARNS DONALD B

Proposed Alternate Method or Material for Casing, Plugging, Venting or Equipping a Well

Well Operator Range Resources Appalachia, LLC		DEP ID# 141142		Well Permit or Registration Number 37-125-29065	
Address 3000 Town Center Blvd.		Well Farm Name CARNS DONALD B UNIT			
City Canonsburg	State PA	Zip Code 15317	Well # 4H		Serial #
Phone 724-743-6726	Fax	County Washington		Municipality Smith	

A proposed alternate method is subject to provisions in §3221 of the 2012 Oil and Gas Act, 58 Pa. C.S. §3221 Section 13 of the Coal and Gas Resource Coordination Act, 58 P.S. §513 and 25 PA Code §§78.75-78.75a (relating to Alternate Methods.) **Attach proof of notification of coal operator(s).**

Describe in reasonable detail using a written description and / or diagram:

- 1. the proposed alternate method or materials, and**
- 2. the manner in which the alternative will satisfy the goals of the laws and regulations.**

25 PA Code Chapter 78a,84(f) requires that Casing which is attached to a blow-out preventer with a pressure rating of greater than 3,000 psi shall be pressure tested after cementing. A passing pressure test must be holding the anticipated maximum pressure to which the casing will be exposed for 30 minutes with not more than a 10% decrease. Certification of the pressure test shall be confirmed by entry and signature of the person performing the test on the driller's log. Range is requesting to perform a Casing Integrity Test (CIT) immediately following cementing operations and verifying the floats have held for the 9 5/8" Intermediate casing and reducing the test from 30 minutes to 10 minutes. This will be done per API Standard 65 - Part 2, Second Edition - 12/2010 Section 5.10.2 "Regulations may require casing to be pressure tested. Preferably, pressure testing casing should be done before significant gel strength has developed. However, such pressure testing will be limited by the pressure ratings of plugs, floats, cementing heads and other equipment. Pressure testing can be done after the cement has set but this can result in micro-annulus formation or damage to the cement sheath. The pressure should be held on the casing for the shortest length of time required to accomplish the test." The cement slurry Range utilizes for this casing string has a Zero Gel Time (ZGT) average of ~26-31 minutes. This is the time before the cement begins to thicken and allow for the creation of microannuli. Reducing the test duration will help to ensure the cement has adequate opportunity to properly conform to the casing. In the event the float does not hold properly, the landing pressure will be held until a minimum compression strength of 500 psi is achieved and the CIT would then be performed per requirements in applicable statutes and regulations.

Optional: Approval by Coal Owner or Operator		Signature of Applicant / Well Operator	
Signature	Date	Signature <i>Seif Magd</i>	Date 6/20/2023
Print or Type Signer's Name and Title		Print or Type Signer's Name and Title Seif Magd, Operations Engineer I	

If optional approval is signed by coal owner or operator, the 15-day objection period may be waived.

DEP USE ONLY	
Approved by (DEP Manager) 	Conditions ☐ YES, See Attached ☒ NO
Date 07/06/2023	