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August 26, 2021

Commonwealth of Pennsylvania
Department of Environmental Protection
Oil and Gas Management
400 Waterfront Drive
Pittsburgh, PA 15222-4745

Re: Bell Point BP6QHSU API 37-129-29123
Proposed Alternate Method or Material for Casing

Ladies and Gentlemen:

In accordance with DEP requirements Casing Standards, please find the following signed documentation enclosed for the above-referenced well. This well application is currently under technical review in ePermitting.

Application for Approval of Alternate Method

Please contact me if you have any questions or need further information at: (724) 485-4346.

Sincerely,

John Schilling

Enclosure(s)

cc: Well File(s)



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

DEP USE ONLY
Application Tracking # 1368144

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

Well Operator CNX GAS COMPANY LLC		DEP ID# OGO-37312	Well Permit or Registration Number 129-29123	
Address 1000 CONSOL ENERGY DRIVE ATTN: PERMITTING		Well Farm Name BELL POINT 6 NORTH		
City CANONSBURG	State PA	Zip Code 15317	Well # BP6QHSU	Serial # PA1291994HSUT
Phone 724-485-3244	Fax	County WESTMORELAND	Municipality BELL TWP	

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.**

1. CNX requests approval for an Alternate Method regarding 78a.84 - Casing Standards, subsection (f) "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." CNX is requesting Casing Integrity Test (CIT) duration be less than 30 minutes immediately upon placement of cement. This would have the CIT being performed before significant gel strength of the cement has developed in the wellbore in order to prevent development of a Micro-Annulus during the CIT. CNX proposes CIT duration of 10 minutes. This would be done in accordance with 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."

2. Given the drilling and completions history on offset Marcellus & Utica wells in the area, there is reasonable evidence to suggest shallow gas migration will be possible if performing a CIT were done and allowed for the creation of a microannulus. The data below represents the Zero Gel Time (ZGT) for the proposed cement blends that will be used during the drilling of this well. These times indicate the length of time that passes before the static cement begins to thicken and allow for the creation of a microannulus. Applied pressure for the CIT will be calculated based upon TVD of the shoe and the hydrostatic difference between the displacement fluid and the cement fluid, and will be 60% of burst rating of the casing except on the 18-5/8" casing where CIT pressure will be 1000psi with Fresh Water.

- 13-3/8" (with 0% CaCl₂) - ZGT = 0:15 - 9-5/8" (with 0% CaCl₂) - ZGT = 1:00

3. Base Plan would be to bump the plug, bleed pressure off and check float valves, apply CIT pressure and then hold for 10 minutes. If floats do not hold, final lift pressure would be held until cement reached 500 psi compressive strength and CIT would be performed as per 78a.84.

Optional: Approval by Coal Owner or Operator		Signature of Applicant / Well Operator	
Signature	Date	Signature	Date
			6/22/2021
Print or Type Signer's Name and Title		Print or Type Signer's Name and Title	
		John Schilling - Drilling Engineer	

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 09/20/2021