



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

DEP USE ONLY
Application Tracking #

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

Client 284309
Site 752534
APS 767839
Auth 1313174

Well Operator SWEPI LP		DEP ID# 67805	Well Permit or Registration Number 37-117-20583 21415	
Address 150 North Dairy Ashford Road, Building E 12th floor			Well Farm Name Scheible 898	
City Houston	State TX	Zip Code 77079	Well # 5H	Serial #
Phone 832-337-4758	Fax	County Tioga	Municipality Deerfield	

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.

SWEPI is proposing trials of two specialized casing expansion tools as part of the plugging process to remediate annular vent flow. These tools are run on E-line to create an expanded diameter of the inner casing of an annulus. This expansion consolidates the annular cement behind the casing, and thereby eliminates any micro-annuli and small channels in the cement, sealing annular flow. Attached are details on both tools (Local Expander and Energetic Expander) with the difference being that the Energetic Expander (EE) uses a charge to expand the casing as opposed to the Local Expander (LE) which mechanically expands the casing.

Please find the Monitoring and Plugging Plan and accompanying documentation attached which includes:

1. Pre-plugging annular vent flow readings.
2. Proposed well bore diagram reflecting the depth(s) where the expansion tool will be deployed and activated.

Use of the casing expansion tool does not preclude subsequent use of current Annular Vent Flow remediation methods. Therefore, running this trial doesn't reduce the effectiveness of the normal remediation methods if required.

Optional: Approval by Coal Owner or Operator		Signature of Applicant / Well Operator	
Signature	Date	Signature	Date
		<i>Jason Shoemaker</i>	4/2/2020
Print or Type Signer's Name and Title		Print or Type Signer's Name and Title <i>Appalachia E&P Trn Lead</i>	
		Jason K. Shoemaker	

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) <i>Kenneth J. Kenney</i>	Conditions ☒ YES, See Attached ☐ NO
	Date 4/23/2020

Scheible 898-5H (117-21415) Alternate Method for Plugging

Monitoring and Plugging Plan for casing expansion tool trial

1. Monitor gas well annuli to ensure baseline flow conditions have been established.
2. Using E-line, deploy and activate the casing expansion tool to seal the production x intermediate cemented annulus at specific depths (specified on proposed WBD). At this time no cement plugs will be placed above activation depths.
3. Pressure test the production casing to confirm casing integrity.
4. Monitor to confirm annular flow is acceptable and communicate results to the Department.
5. If annular flow is acceptable, continue implementation of the approved plugging plan.
6. If annular flow monitoring results are not acceptable; either implement additional casing expansion trials or perforate and squeeze to remediate.

Documentation to be provided to DEP

- Pre-plugging annular flow readings – Attached.
- Proposed WBD reflecting depth(s) where casing expansion tool will be deployed and activated - Attached
- Post casing expansion tool deployment casing pressure test results. – To be submitted with Certificate of Plugging.
- Post-Plugging readings confirming success of casing expansion tool deployment. To be submitted with Certificate of Plugging
- Post-Plugging (“as plugged”) WBD. To be submitted with Certificate of Plugging.