



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

PERMIT MODIFICATION APPROVAL

December 19, 2013

EXCO RESOURCES (WV), INC.
P O BOX 8
RAVENSWOOD , WV 26164

Re: Permit Modification Approval for API Number 3902419 , Well #: L. C. WILSON 4
Re-perforate & Acid Job

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

for Gene Smith
Regulatory/Compliance Manager
Office of Oil and Gas



EXCO Resources (PA), LLC

260 Executive Drive • Suite 100 • Cranberry Township, PA 16066
Phone (724) 720-2500 • Fax: (724) 720-2505

December 18, 2013

West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304
Attn: Mr. James Peterson

**RE: Well Work Permit Modification
LC Wilson #4 Injection Well
API Well Number 47-3902419
Elk District, Kanawha County, West Virginia**

Dear Mr. Peterson:

EXCO Resources (PA), LLC (EXCO) is requesting to modify the previously approved Well Work Permit, API Well Number 47-3902419, in order to amend the proposed scope of work, which includes the following:

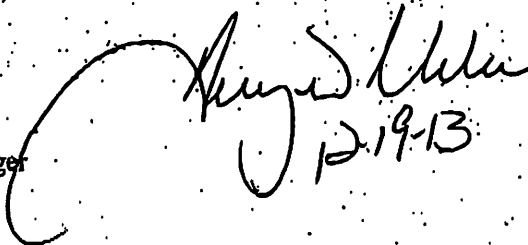
1. Re-perforate the same intervals previously perforated which are 1568-1588', 1616-1636', 1654-1674'. We will correlate with gamma & collar locator to ensure we are in same spot.
2. Run new packer and new PVC lined tubing in hole. Pressure test.
3. Pump 1,500 gallon acid job to clean up the perforations in order to make the well a more efficient injector.
4. Perform a witnessed Mechanical Integrity Test and return the well to injection.

A revised Well Work Permit Application (Form WW-2B) is attached which includes a revised description of the proposed well work.

If you should have any questions or require additional information, please contact me at (724) 720-2590.

Sincerely,


Brian E. Rushe, P.E.
Construction & Regulatory Manager


12-19-13

Enclosures

WW - 2B
(Rev. 8/10)

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION**

1) Well Operator: EXCO Resources (PA), LLC 307860 Kanawha Elk Blue Creek
Operator ID County District Quadrangle

2) Operator's Well Number: 47-039-02419 3) Elevation: 1039'

4) Well Type: (a) Oil _____ or Gas X
 (b) If Gas: Production _____ / Underground Storage X
 Deep _____ / Shallow X

5) Proposed Target Formation(s): Salt Sands Proposed Target Depth: 1568'-1674'

6) Proposed Total Depth: 1850' Feet Formation at Proposed Total Depth: _____

7) Approximate fresh water strata depths: 250'

8) Approximate salt water depths: 1100'

9) Approximate coal seam depths: N/A

10) Approximate void depths, (coal, Karst, other): N/A

11) Does land contain coal seams tributary to active mine? N/A

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

1. Re-perforate the same intervals previously perforated which are 1568-1588', 1618-1636', 1664-1674'. We will correlate with gamma & collar locator to ensure we are in same spot.
 2. Run new packer and new PVC lined tubing in hole. Pressure test. 3. Pump 1,500 gallon acid job to clean up the perforations in order to make the well a more efficient injector. 4. Perform a witnessed Mechanical Integrity Test and return the well to injection.

13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	
Conductor						
Fresh Water	8-5/8	H-40	24	254		Surface
Coal						
Intermediate						
Production	4-1/2	J-55	13.5	2,169		TOC 1,090'
Tubing	2-7/8	J-55	4.7	1,510		
Liners						

Packers: KInd: Halliburton R-4
 Sizes: 4-1/2"
 Depths Set 1,510

[Handwritten Signature]
 12-19-13