PERMIT MODIFICATION APPROVAL
May 15, 2015

CHEVRON APPALACHIA, LLC
POST OFFICE BOX 611
MOON TOWNSHIP, PA 15108

Re: Permit Modification Approval for API Number 5101784, Well #: CURRY 8H

Casing change

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,

[Signature]

Gene Smith
Assistant Chief of Permitting
Office of Oil and Gas
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

Operator ID County District Quadrangle

2) Operator’s Well Number: 8H Well Pad Name: Curry

3) Farm Name/Surface Owner: Curry Public Road Access: Wayman’s Ridge Rd/County Rt 38

4) Elevation, current ground: 1317’ Elevation, proposed post-construction: 1317’

5) Well Type (a) Gas X Oil Underground Storage Other
(b) If Gas Shallow X Deep Horizontal X

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
   Point Pleasant, 11381, Thickness 140’ - Pressure 0.89 psi/ft

8) Proposed Total Vertical Depth: 11,898’

9) Formation at Total Vertical Depth: Point Pleasant

10) Proposed Total Measured Depth: 17,900’

11) Proposed Horizontal Leg Length: 6,002’

12) Approximate Fresh Water Strata Depths: 355’ GL

13) Method to Determine Fresh Water Depths: Curry 2H

14) Approximate Saltwater Depths: 1,890’-3,080’

15) Approximate Coal Seam Depths: 825’ GL

16) Approximate Depth to Possible Void (coal mine, karst, other): 825’ GL

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No X

(a) If Yes, provide Mine Info: Name: Alexander Mine (abandoned)
   Depth: 825’-833’ GL
   Seam: Pittsburgh No. 8 Coal Seam
   Owner: Reserve Coal Properties Company

Received

Office of Oil and Gas
WV Dept. of Environmental Protection

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### CASING AND TUBING PROGRAM

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<tr>
<th>TYPE</th>
<th>Size (in)</th>
<th>New or Used</th>
<th>Grade</th>
<th>Weight per ft. (lb/ft)</th>
<th>FOOTAGE: For Drilling (ft)</th>
<th>INTERVALS: Left in Well (ft)</th>
<th>CEMENT: Fill-up (Cu. Ft.)/CTS</th>
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<th>Anticipated Max. Internal Pressure (psi)</th>
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<th>Cement Yield (cu. ft./k)</th>
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### PACKERS

Kind:  
Sizes:  
Depths Set:  

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