PERMIT MODIFICATION APPROVAL

September 25, 2014

Noble Energy, Inc.
333 Technology Drive, Suite 116
Canonsburg, PA 15317

Re: Permit Modification Approval for API Number 5101669, Well #: MND3FHS
Added Target Formations

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
July 29, 2014

Dee Swiger
Regulatory Analyst III

West Virginia Department of Environmental Protection
Office of Oil and Gas
Environmental Resource Analyst
601 57th St. S.E
Charleston, WV 25304

Permit Application — MND 3 FHS 47-051-01669 modification for additional zones

Dear Office of Oil & Gas,

Enclosed please find a revised WW-6B revising line 6 and 16. We would like to modify the permit to allow us to stimulate and produce the Burkett, Tully, Hamilton and Marcellus formations. I have also included a revised survey plat and signed waiver from the coal operator. We anticipate completing this well mid-September.

Please let me know if you require further information.

Sincerely,

[Signature]

Dee Swiger

DS/

Enclosure(s):
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

Operator ID  Franklin
County District Powhatan Point Quadrangle

2) Operator’s Well Number: MND 3 FHS Well Pad Name: MND 3

3) Elevation, current ground: 1128.39’ Elevation, proposed post-construction: 1112’

4) Well Type: (a) Gas Oil Underground Storage
     Other (b) If Gas: Shallow Deep Horizontal

5) Existing Pad? Yes or No: NO

6) Proposed Target Formation(s), Depth(s), Anticipated Thicknesses and Associated Pressure(s):
   Target Burket Depth: 6170-6187, Thickness 27’, Pressure 4090 PSI, Tulley Depth: 6197-6205.5, Thickness 8.5’, Pressure 4096 PSI, Hamilton Depth: 6205.5-6228, Thickness 20.5’, Pressure 4109 PSI, Marcellus, Depth: 6228-6290, Thickness 64’, Pressure 4151 PSI

7) Proposed Total Vertical Depth: 6279’
8) Formation at Total Vertical Depth: Marcellus
9) Proposed Total Measured Depth: 12,804’
10) Approximate Fresh Water Strata Depths: 165’, 298’
11) Method to Determine Fresh Water Depth: Offset well data
12) Approximate Saltwater Depths: None noted for offsets
    Office of Oil and Gas
    WV Dept. of Environmental Protection
13) Approximate Coal Seam Depths: 612’ Pittsburgh Base
14) Approximate Depth to Possible Void (coal mine, karst, other): None anticipated, drilling in pillar-see mine maps
15) Does proposed well location contain coal seams directly overlying or adjacent to an active mine? If so, indicate name and depth of mine: Yes, McElroy & Ireland Mine at approx. 612’
16) Describe proposed well work: Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 6,279 feet.
   Drill Horizontal leg - stimulate and produce from the Burkett to and including the Marcellus Formation.
   If we should encounter an unanticipated void we will install casing at a minimum of 20’ below the void but not more than 50’ below the void, set a basket and grout to surface.

17) Describe fracturing/stimulating methods in detail:
   The stimulation will be multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals. See attached list.

18) Total area to be disturbed, including roads, stockpile area, pits, etc, (acres): 15.6 acres
19) Area to be disturbed for well pad only, less access road (acres): 9.1 acres

Received 09/26/2014

Page 1 of 3
STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
VOLUNTARY STATEMENT OF NO OBJECTION  

Instructions to Persons Named on Page WW-6A  
The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions  
Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: Provided. That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION  

I, Alex O'Neill, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through , including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State: West Virginia  
County: Marshall  
District: Franklin  
Quadrangle: POWHATAN POINT  
Watershed: Conner Run  
WVSPN NAD 27: 1,637,190.948  
Easting: 494,425.707  
Nothing: County Road 2/1  
Public Road Access: CONSOLIDATION COAL CO.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials, provided that NOBLE ENERGY, INC. drills the well on WV North NAD27 coordinates of North 494,425,707, East 1,637,190,948.

*Please check the box that applies  
☐ SURFACE OWNER  
☐ SURFACE OWNER (Road and/or Other Disturbance)  
☐ SURFACE OWNER (Impoundments/Pits)  
☐ COAL OWNER OR LESSEE  
☒ COAL OPERATOR  
☐ WATER PURVEYOR  
☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD

FOR EXECUTION BY A NATURAL PERSON  

Signature:  
Print Name:  
Date:  

FOR EXECUTION BY A CORPORATION, ETC.  

Company: CONSOLIDATION COAL CO.  
By: Alex O'Neill, Coal, Oil & Gas Relations Manager  
Signature:  
Date: 7/25/2014  

Oil and Gas Privacy Notice:  
The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov  

09/26/2014