PERMIT MODIFICATION APPROVAL

October 23, 2013

NOBLE ENERGY, INC.
333 TECHNOLOGY DRIVE, SUITE 110
CANONSBURG, PA 15317

Re: Permit Modification Approval for API Number 5101640, Well #: SHL 13DHS
Casing Extended

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
Regulatory/Compliance Manager
Office of Oil and Gas
July 25, 2013
West Virginia Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304-2345

Re: SHL 13 API# 47-5101638 - 47-05101639 - 47-05101655 - 47-05101640-47-05101641
47-05101642- 47-05101643

Dear Laura:

Enclosed please find modifications to the casing string for the above referenced well. We would like to extend the 13 3/8" to 1200' if order to try and avoid red rock issues. This change has been approved by the state inspector. This well is located in Marshall County, WV.

Should you have any questions, or desire any additional information, please do not hesitate to contact me at 724-820-3061 or via email at dswiger@nobleenergyinc.com.

Sincerely,

Dee Swiger
Regulatory Analyst
DS/
Enclosures:
## CASING AND TUBING PROGRAM

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Size</th>
<th>New or Used</th>
<th>Grade</th>
<th>Weight per ft</th>
<th>FOOTAGE: For Drilling</th>
<th>INTERVALS: Left in Well</th>
<th>CEMENT: Fill-up (Cu. Ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductor</td>
<td>30&quot;</td>
<td>N</td>
<td>J55</td>
<td>94.0</td>
<td>40'</td>
<td>40'</td>
<td>CTS</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>20&quot;</td>
<td>N</td>
<td>J55</td>
<td>94.0</td>
<td>400'</td>
<td>400'</td>
<td>CTS</td>
</tr>
<tr>
<td>Coal</td>
<td>13 3/8&quot;</td>
<td>N</td>
<td>J55</td>
<td>54.5</td>
<td>1200'</td>
<td>1200'</td>
<td>CTS</td>
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<tr>
<td>Intermediate</td>
<td>9 5/8&quot;</td>
<td>N</td>
<td>J55</td>
<td>36.0</td>
<td>3218'</td>
<td>3218'</td>
<td>CTS</td>
</tr>
<tr>
<td>Production</td>
<td>5 1/2&quot;</td>
<td>N</td>
<td>P110</td>
<td>20.0</td>
<td>12647'</td>
<td>12647'</td>
<td>TOC 200' above 9.625&quot; shoe</td>
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### Wellbore Details

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Size</th>
<th>Wellbore Diameter</th>
<th>Wall Thickness</th>
<th>Burst Pressure</th>
<th>Cement Type</th>
<th>Cement Yield</th>
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<tbody>
<tr>
<td>Conductor</td>
<td>30&quot;</td>
<td>36&quot;</td>
<td>.25</td>
<td>2730</td>
<td>Type 1</td>
<td>CTS</td>
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<tr>
<td>Fresh Water</td>
<td>20&quot;</td>
<td>26&quot;</td>
<td>.438</td>
<td></td>
<td>Type 1</td>
<td>1.18</td>
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<tr>
<td>Coal</td>
<td>13 3/8&quot;</td>
<td>17 1/2&quot;</td>
<td>.380</td>
<td>2730</td>
<td>Type 1</td>
<td>1.18</td>
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<tr>
<td>Intermediate</td>
<td>9 5/8&quot;</td>
<td>12 3/8&quot;</td>
<td>.352</td>
<td>3520</td>
<td>Class A</td>
<td>1.19</td>
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<tr>
<td>Production</td>
<td>5 1/2&quot;</td>
<td>8 3/4&quot;</td>
<td>.361</td>
<td>12640</td>
<td>Class A</td>
<td>1.27</td>
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</table>

### PACKERS

<table>
<thead>
<tr>
<th>Kind:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes:</td>
<td></td>
</tr>
<tr>
<td>Depths Set:</td>
<td></td>
</tr>
</tbody>
</table>
Well is located on topo map 13,675 feet south of Latitude: 40° 02' 30".

Legend:
- TPO MAP POINT
- WELLS
- ALL MEASURED UNLESS OTHERWISE NOTED
- WATER SOURCE
- LEGEND NUMBERED OR ATTACHED WW-61
- INFEED TRACT BOUNDARY
- PARCEL LINES
- WELLS
- ALLEYS
- PROPOSED HIGHWAY
- ROAD
- STREAM CENTER LINE
- WELLS WITHIN 3000'
  - Existing Wells
  - Plugged Wells

Blue Mountain Engineering
11025 NAXXON DRIVE HIGHWAY
JUNO, WV 25524
PHONE: (304) 822-6465

FILE #: SHL13DS
DRAWING #: SHL13DS
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1/2500
PROVEN SOURCE OF ELEVATION: USGS. MONUMENT 
                       "THOMAS 1498.81"
                       
PLACE SEAL HERE

(+)- DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WV Dep.
OFFICE OF OIL & GAS
601 5TH STREET
CHARLESTON, WV 25304

Well Type: ☐ Oil ☑ Waste Disposal ☑ Production ☐ Deep
☐ Gas ☐ Liquid Injection ☐ Storage ☑ Shallow

WATERSHED: TURK RUN
COUNTY/DISTRICT: MARSHALL / SAND HILL
QUADRANGLE: VALLEY GROVE, W. VA 7.5'
SURFACE OWNER: PAUL H. & ANNIE A. HEMSBLY
ACREAGE: 121.65±

OIL & GAS ROYALTY OWNER: SEE ATTACHED WW-61
ACREAGE: 435.703±

DRILL ☑ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☐
PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐ PLUG & ABANDON ☐
CLEAN OUT & REPLUG ☐ OTHER CHANGE ☐ (SPECIFY):

TARGET FORMATION: MARCELLUS
ESTIMATED DEPTH: TBD: 6781'- TBD: 12647'

WELL OPERATOR NOBLE ENERGY INC
ADDRESS: 333 TECHNOLOGY DRIVE, SUITE 116
CITY: CANONSBURG
STATE: PA ZIP CODE: 15317

DESIGNATED AGENT STEVEN M. GREEN
ADDRESS: 500 VIRGINIA STREET, UNITED CENTER SUITE 590
CITY: CHARLESTON
STATE: WV ZIP CODE: 25301

DATE: APRIL 17, 2013
OPERATOR'S WELL #: SHL13DS
API WELL #: 51-51 0164066A
STATE COUNTY PERMIT

1. THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.