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**west virginia** department of environmental protection

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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

October 27, 2015

**WELL WORK PERMIT**

**Horizontal 6A Well**

This permit, API Well Number: 47-9502299, issued to STATOIL USA ONSHORE PROPERTIES, INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: YURIGAN TH  
Farm Name: STATOIL USA ONSHORE PROPEI  
**API Well Number: 47-9502299**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 10/27/2015

**Promoting a healthy environment.**

**10/30/2015**

# PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

## CONDITIONS

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1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
9. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.



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601 57<sup>th</sup> Street  
Charleston, WV 25304  
(304) 926-0450 fax (304) 926-0452

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

**ORDER  
ISSUED UNDER  
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: Statoil USA Onshore Properties, Inc.  
2107 City West Boulevard, Suite 800  
Houston TX, 77042

DATE: September 25, 2015  
ORDER NO.: 2015-W-11

**INTRODUCTION**

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to Statoil USA Onshore Properties, Inc. (hereinafter "Statoil" or "Operator"), collectively the "Parties."

**FINDINGS OF THE CHIEF**

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. Statoil is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 2107 City West Boulevard, Suite 800, Houston, Texas.
3. On July 31, 2015, August 3, 2015 and August 5, 2015 Statoil submitted well work permit applications identified as API#s 47-095-02299, 47-095-02300, 47-095-02301, 47-095-02302 and 47-095-02303. The five proposed wells are to be located on the Yurigan Pad in Ellsworth District of Tyler County, West Virginia.
4. On July 31, 2015, Statoil requested a waiver for Wetland #1 as outlined in Attachment I, from well location restriction requirements in W. Va. Code §22-6A-12(b) for well work permit applications identified as 47-095-02299, 47-095-02300, 47-095-02301, 47-095-02302 and 47-095-02303.

10/30/2015

## CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “[i]n addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the Office of Oil and Gas shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The Office of Oil and Gas may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.”

## ORDER


West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetland #1 from well location restriction requirements in W. Va. Code §22-6A-12(b) for well work permit applications identified as API#s 47-095-02299, 47-095-02300, 47-095-02301, 47-095-02302 and 47-095-02303. The Office of Oil and Gas hereby **ORDERS** that Statoil shall meet the following site construction and operational requirements for the Yurigan well pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least eighteen inches (18”) in height;
- b. Filter/silt socks shall be installed on all slopes and down gradient locations of the pad and topsoil pile areas as erosion and sediment controlling BMPs;
- c. Wetland #1 shall have a 32” compost filter sock backed by super silt fence installed adjacent to the wetland;
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 25th day of September, 2015.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

OFFICE OF OIL AND GAS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STATE OF WEST VIRGINIA

By:   
JAMES A. MARTIN, CHIEF

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

1) Well Operator: Statoil USA Onshore Prop

|                  |              |                  |                         |
|------------------|--------------|------------------|-------------------------|
| <u>494505083</u> | <u>Tyler</u> | <u>Ellsworth</u> | <u>Shirley - Sec. 3</u> |
|------------------|--------------|------------------|-------------------------|

  
Operator ID County District Quadrangle

2) Operator's Well Number: 1H Well Pad Name: Yurigan

3) Farm Name/Surface Owner: Yurigan Farm/Joseph Yurigan, Jr. Public Road Access: CR 34

4) Elevation, current ground: 1260 Elevation, proposed post-construction: 1244

5) Well Type (a) Gas  Oil  Underground Storage   
Other 1260

(b) If Gas Shallow  Deep   
Horizontal

*Michael Goff*  
*7/17/15*

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):  
Marcellus, Formation Top 6914' TVD, 51' thick, 4496 psi

8) Proposed Total Vertical Depth: 6917' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 15129'

11) Proposed Horizontal Leg Length: 7560'

12) Approximate Fresh Water Strata Depths: 313' TVD

13) Method to Determine Fresh Water Depths: 1980 study "Freshwater & Saline Groundwater Study of WV" by James Foster

14) Approximate Saltwater Depths: 663' TVD

15) Approximate Coal Seam Depths: 438'

16) Approximate Depth to Possible Void (coal mine, karst, other): NA

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

(a) If Yes, provide Mine Info: Name: \_\_\_\_\_  
Depth: \_\_\_\_\_  
Seam: \_\_\_\_\_  
Owner: \_\_\_\_\_

Received  
Office of Oil & Gas  
JUL 31 2015

09502299

09502299

WW-6B  
(10/14)

API NO. 47- \_\_\_\_\_

OPERATOR WELL NO. 1H \_\_\_\_\_

Well Pad Name: Yurigan \_\_\_\_\_

18)

CASING AND TUBING PROGRAM

| TYPE         | Size (in) | New or Used | Grade | Weight per ft. (lb/ft) | FOOTAGE: For Drilling (ft) | INTERVALS: Left in Well (ft) | CEMENT: Fill-up (Cu. Ft.)/CTS |
|--------------|-----------|-------------|-------|------------------------|----------------------------|------------------------------|-------------------------------|
| Conductor    | 20"       | New         | H-40  | 94#                    | 100'                       | 100'                         | Cement to Surface-150 cuft    |
| Fresh Water  | 13.375"   | New         | J-55  | 54.4#                  | 373'                       | 373'                         | Cement to surface-339 cuft    |
| Coal         | NA        | ---         | ---   | ---                    | ---                        | ---                          | ---                           |
| Intermediate | 9.625"    | New         | J-55  | 36#                    | 2641'                      | 2641'                        | Cement to surface-1063 cuft   |
| Production   | 5.5"      | New         | P-110 | 20#                    | 15129'                     | 15129'                       | Cement to 1641'-3436 cuft     |
| Tubing       | 2.375"    | New         | L-80  | 4.7#                   | ---                        | ---                          | ---                           |
| Liners       | NA        | ---         | ---   | ---                    | ---                        | ---                          | ---                           |

MAG  
7/17/15

| TYPE         | Size (in) | Wellbore Diameter (in) | Wall Thickness (in) | Burst Pressure (psi) | Max. Associated Surface Pressure (psi) | Cement Type | Cement Yield (cu. ft./k) |
|--------------|-----------|------------------------|---------------------|----------------------|--|-------------|--------------------------|
| Conductor    | 20"       | 26"                    | .438"               | 1530 psi             | ---                                    | Class A     | 1.3 cuft/sk              |
| Fresh Water  | 13.375"   | 17.5"                  | .380"               | 2730 psi             | 234                                    | Class A     | 2.31 cuft/sk             |
| Coal         | NA        | ---                    | ---                 | ---                  | ---                                    | ---         | ---                      |
| Intermediate | 9.625"    | 12.25"                 | .352"               | 3520 psi             | 2016                                   | Class A     | 2.31 cuft/sk             |
| Production   | 5.5"      | 8.5"                   | .361                | 12640 psi            | 10000                                  | Class A     | 1.29 cuft/sk             |
| Tubing       | 2.375"    | 5.5"                   | .19"                | 11200 psi            | 3776                                   | ---         | ---                      |
| Liners       | NA        | ---                    | ---                 | ---                  | ---                                    | ---         | ---                      |

PACKERS

|             |                                  |  |  |                     |
|-------------|----------------------------------|--|--|---------------------|
| Kind:       | HES Versa-Set Retrievable Packer |  |  |                     |
| Sizes:      | 2.375" x 5.5"                    |  |  | Received            |
| Depths Set: | 6500'                            |  |  | Office of Oil & Gas |
|             |                                  |  |  | JUL 31 2015         |



WW-6B  
(10/14)

09502299  
API NO. 47  
OPERATOR WELL NO. 1H  
Well Pad Name: Yurigan

MDC  
7/17/15

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

See Attached

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Well will be hydraulically fracture stimulated via the plug-n-perf method with +/- 35 stages per well. Each fracturing treatment will utilize approximately 390,000 lbs of sand and 7,500 bbls of fresh water. The fracturing rate will range between 75 and 100 bpm at a pressure lower than a maximum pressure of 10,000 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 12.2 acres

22) Area to be disturbed for well pad only, less access road (acres): 3.58 acres

23) Describe centralizer placement for each casing string:

See Attached

24) Describe all cement additives associated with each cement type:

See Attached

25) Proposed borehole conditioning procedures:

See Attached

Received  
Office of Oil & Gas  
JUL 31 2015

\*Note: Attach additional sheets as needed.

WW-6B – Yurigan 1H

**19) Describe proposed well work, including the drilling and plugging back of any pilot hole:**

20" conductor will be pre-set prior to start of operations and cemented in place to surface at approximately 100ft. A 17 1/2" surface hole will be drilled with fresh water to approximately 330' md/tvd. 13 3/8" surface casing will be installed and cemented to surface in order to isolate fresh water zones and provide a competent shoe for well control while drilling deeper horizons. A 12 1/4" intermediate hole section will be drilled with 5% KCL Polymer (WBM) and a conventional mud motor to approximately 2317' md/tvd through the base of the Big Injun formation. 9 5/8" Intermediate casing will be installed and cemented to surface in order to isolate the Red Beds and Big Injun formation from lower hydrocarbon bearing zones while providing a competent shoe for well control. An 8 1/2" vertical hole section will be to planned kick-off point using Synthetic Based Mud (SBM) and a conventional mud motor. The wellbore will be deviated from vertical and landed horizontally in the Marcellus Target horizon, and extended laterally to total depth of 15129' md/ 6,917' vd using SBM and conventional mud motors. A 5 1/2" production casing will be installed and cemented so estimated top of cement is at least 300ft inside the previous casing shoe. The Drilling Rig will then be released to the next well.

**23) Describe centralizer placement for each casing string:**

Surface - 1 centralizer w/ stop collar 10 ft above float shoe. One Single Bow every joint to 100ft below surface.

Intermediate – 1 centralizer w/ stop collar 10 ft above float shoe. 1 centralizer w/ stop collar 10 ft above float collar. 1 centralizer every joint for the first 15 joints. One centralizer every 3 jnts to 100ft below surface.

Production - 1 centralizer w/ stop collar 10ft above shoe. 1 centralizer 10ft above float collar. 1 centralizer every joint (floating) until KOP. 1 centralizer every 3 joints (floating) until 200ft inside intermediate shoe. 1 centralizer 50ft below mandrel hanger.

**24) Describe all cement additives associated with each cement type:**

Surface - Class A + 3% CaCl<sub>2</sub>

Intermediate - Class A + 3% CaCl<sub>2</sub>

Production - Class A cmt, 10% bwow Dispersent, 0.6% bwoc Fluid Loss, 0.4% bwoc Retarder, 0.1% bwoc Free water control agent, 0.25% bwoc Defoamer, 0.1% bwoc Fluid Loss, 6.32 gal/sk Fresh Water.

**25) Proposed borehole conditioning procedures:**

Surface – Drilled with fresh water to section total depth. Prior to tripping, hole will circulated clean of cuttings and back-reamed if necessary.

Intermediate – Drilled with air/mist and to TD and filled with 5% KCL Polymer Water Based Mud (WBM) at section total depth. At section total depth, pump 40bbl viscous pill and circulate hole clean.

WW-6B – Yurigan 1H

**Production - Drilled with 12.0-12.5 ppg Synthetic Based Mud (SBM) to section total depth. At section total depth pump 2-3 20bbl heavy weighted pill sweeps to transport excess cutting from the hole until clean. Pump rates will be maintained in excess of 600 GPM, and rotation in excess of 100 RPM to assist cuttings transport. A 60 bbl tuned weighted spacer will be pumped ahead of the cement to assist in mud cake removal and water wett both casing and formation.**



# Marcellus - Drilling Well Schematic

95-02299

Well Name: Yurigan 1H  
 Field Name: Marcellus  
 County: Tyler  
 API #: 0

BHL: X = 1699642.7  
 SHL: X = 1702731.7  
 GLE (ft): 1,241  
 DF (ft): 22  
 Y = 14351230.7  
 Y = 14343613.1

TVD (ft): 6,917  
 TMD (ft): 15,129  
 Profile: Horizontal  
 AFE No.: PERMITTING

| Formations & Csg Points              | Depth, ft |       |        | Form. Temp. (F) | Pore Press. (EMW) | Frac Gradient (EMW) | Planned MW | Measure Depth (ft) | Program | Details  |
|--------------------------------------|-----------|-------|--------|-----------------|-------------------|---------------------|------------|--------------------|---------|--|
|                                      | MD        | TVD   | SS     |                 |                   |                     |            |                    |         |  |
| <b>Conductor</b>                     | 100       | 100   | 1,163  | -               | -                 | -                   | -          | 100                |         | <b>20" Conductor</b>   |
|                                      |           |       |        |                 |                   |                     | FW         |                    |         | <b>17-1/2" Surface</b>   |
|                                      |           |       |        |                 |                   |                     | 9.2        |                    |         | Profile: Vertical  |
|                                      |           |       |        |                 |                   |                     | 9.2        |                    |         | Bit Type: 17-1/2" PDC  |
|                                      |           |       |        |                 |                   |                     |            |                    |         | BHA: 9 5/8" 6/7 5.0 .13 RPG  |
|                                      |           |       |        |                 |                   |                     |            |                    |         | Mud: 9.2 ppg Fresh Water   |
|                                      |           |       |        |                 |                   |                     |            |                    |         | Surveys: n/a   |
|                                      |           |       |        |                 |                   |                     |            |                    |         | Logging: n/a   |
|                                      |           |       |        |                 |                   |                     |            |                    |         | Casing: 13.375 54.5 J-55 BTC at 373' MD/373' TVD   |
|                                      |           |       |        |                 |                   |                     |            |                    |         | Centralizers: 1 centralizer w/ stop collar 10 ft above float shoe. One Single Bow every joint to 100ft below surface.  |
|                                      |           |       |        |                 |                   |                     |            |                    |         | Cement: 15.8 ppg Tail slurry w/ TOC @ Surface  |
|                                      |           |       |        |                 |                   |                     |            |                    |         | Potential Drilling Problems: Stuck Pipe, Floating Collision  |
| Approximate Fresh Water Strata ~313' |           |       |        |                 |                   |                     |            |                    |         |  |
| <b>Casing Point</b>                  | 373       | 373   | 890    | 65              | -                 | -                   | -          | 373                |         | <b>FIT/LOT: 14.0 ppg EMW</b>   |
| <b>Washington Coal</b>               |           | 438   |        |                 |                   |                     | Air/Mist   |                    |         | <b>12-1/4" Intermediate</b>  |
| <b>1st Salt Sand</b>                 |           | 666   |        |                 |                   |                     | -          |                    |         | Profile: Nudge and hold for anticollision  |
|                                      |           |       |        |                 |                   |                     | -          |                    |         | Bit Type: 12-1/4" Hughes VG-35ADX1 (IADC:547)  |
|                                      |           |       |        |                 |                   |                     | -          |                    |         | BHA: 0   |
|                                      |           |       |        |                 |                   |                     | -          |                    |         | Mud: Powerline 1.83; 7/8 lobe; 2.5stg; .07rpg  |
|                                      |           |       |        |                 |                   |                     | -          |                    |         | Surveys: Gyro SS, MWD - EM Pulse   |
|                                      |           |       |        |                 |                   |                     | -          |                    |         | Logging: n/a   |
|                                      |           |       |        |                 |                   |                     | -          |                    |         | Casing/Liner: 9.625 36 J-55 BTC at 2641' MD/2641' TVD  |
|                                      |           |       |        |                 |                   |                     | -          |                    |         | Csg Hanger: Fluted Mandrel Hanger  |
|                                      |           |       |        |                 |                   |                     | -          |                    |         | Centralizers: 1 centek centralizer w/ stop collar 10 ft above float shoe. 1 centek centralizer every joint for the first 15 joints. One centralizer every 3 jnts to 100ft below surface.   |
|                                      |           |       |        |                 |                   |                     | -          |                    |         | Cement: 15.8 ppg Tail slurry w/ TOC @ Surface  |
|                                      |           |       |        |                 |                   |                     | -          |                    |         | Potential Drilling Problems: Hole Cleaning, Poor ROP, Connections, Bit Preservation  |
| <b>Base Big Injun</b>                |           | 2,541 |        |                 |                   |                     | -          |                    |         |  |
| <b>Casing Point</b>                  | 2,641     | 2,641 | -1,378 | 82              | -                 | >18.0               | -          | 2,641              |         | <b>FIT: 15.8 ppg EMW</b>   |
| <b>Weir</b>                          |           | 2,725 |        |                 |                   |                     | Air/Mist   |                    |         | <b>8-1/2" Production</b>   |
| <b>Berea Sand</b>                    |           | 2,893 |        |                 |                   |                     | Air/Mist   |                    |         | Profile: 8-3/4" Hughes VG-30ADX1 (IADC: 547) - Vert  |
| <b>Gordon Sand</b>                   |           | 3,115 |        |                 |                   |                     | Air/Mist   |                    |         | Bit Type: 8-3/4" SMITH SDI516 - C&L  |
| <b>Warren</b>                        |           | 3,697 |        |                 |                   |                     | Air/Mist   |                    |         | BHA: 6.75in 7:8 lobe 2.9 stg 1.5 ABH (0.17 rpg 560 DIFF) - Vert  |
| <b>Benson</b>                        |           | 5,308 |        |                 |                   |                     | Air/Mist   |                    |         | Mud: Air in the Vertical & 12.7 ppg SBM in the Curve & Lateral   |
| <b>Undiff Shales</b>                 |           | 5,350 |        |                 |                   |                     | Air/Mist   |                    |         | Surveys: MWD - EM Pulse w/ 30ft surveys in curve, 100ft surveys in lateral   |
|                                      |           |       |        |                 |                   |                     | Air/Mist   |                    |         | Logging: GR  |
|                                      |           |       |        |                 |                   |                     | Air/Mist   |                    |         | Casing/Liner: 5.5 20 P110EC VAM TOP HT at 15129 ft MD/6917 ft TVD  |
|                                      |           |       |        |                 |                   |                     | Air/Mist   |                    |         | Csg Hanger: Fluted Mandrel Hanger  |
|                                      |           |       |        |                 |                   |                     | Air/Mist   |                    |         | Centralizers: 1 centek centralizer w/ stop collar 10ft above shoe. 1 centek centralizer every joint (floating) until KOP. 1 centek centralizer every 3 joints (floating) until 200ft inside intermediate shoe. 1 centek centralizer 50ft below mandrel hanger. |
|                                      |           |       |        |                 |                   |                     | Air/Mist   |                    |         | Cement: 15 ppg Tail slurry w/ TOC @ 1641'vd  |
|                                      |           |       |        |                 |                   |                     | Air/Mist   |                    |         | Potential Drilling Problems: Bit Preservation, Hole Cleaning, Achieving DLS, Unfamiliarity w/ Tools  |
| <b>KOP</b>                           | 6,168     | 6,162 |        |                 |                   |                     | 12.0-12.5  |                    |         | Notes / Comments:  |
| <b>Sonyea</b>                        |           | 6,436 |        |                 |                   |                     | 12.0-12.5  |                    |         |  |
| <b>Middlesex</b>                     |           | 6,748 |        |                 |                   |                     | 12.0-12.5  |                    |         |  |
| <b>West River</b>                    |           | 6,775 |        |                 |                   |                     | 12.0-12.5  |                    |         |  |
| <b>Geneseo</b>                       |           | 6,845 |        |                 |                   |                     | 12.0-12.5  |                    |         |  |
| <b>Tully</b>                         |           | 6,868 |        |                 |                   |                     | 12.0-12.5  |                    |         |  |
| <b>Hamilton</b>                      |           | 6,819 |        |                 |                   |                     | 12.0-12.5  |                    |         |  |
| <b>Marcellus</b>                     |           | 6,944 |        |                 |                   |                     | 12.0-12.5  |                    |         |  |
| <b>Landing point</b>                 | 7,570     | 6,917 |        |                 |                   |                     | 12.0-12.5  |                    |         | TMD: 15,129<br>TVD: 6,917  |
| <b>Cherry Valley</b>                 |           | 7,026 |        |                 |                   |                     | 12.0-12.5  |                    |         |  |
| <b>Onondaga</b>                      |           | 7,051 |        |                 |                   |                     | 12.0-12.5  |                    |         |  |

Last Revision Date: 9/15/2015  
 Revised by: Ryan Cardenas

Note: Depths are referenced to RKB  
 Note: Not Drawn to Scale

Cement Outside Casing

10/30/2015

Yurigan 1H Well Schematic - Detail Summary

WW-9  
(2/15)

09502299  
API Number 47 -  
Operator's Well No. Yurigan 1H

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Statoil USA Onshore Properties Inc. OP Code 494505083

Watershed (HUC 10) Elk Fork Quadrangle Shirley - Sec. 3

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes  No

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: \_\_\_\_\_

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? \_\_\_\_\_

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number Green Hunter API 34-121-23195 )
- Reuse (at API Number \_\_\_\_\_)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

MAG  
7/17/15

Will closed loop system be used? If so, describe: Yes

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air/fresh Water-vert sec /oil based mud for horiz sec

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? emulsifier, food grade oil, barite, surfactant, calcium carbonate, gilsonite, lubricant, graphite, lime

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NA

-Landfill or offsite name/permit number? Wetzel County Landfill

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Bekki Winfree

Company Official (Typed Name) Bekki Winfree

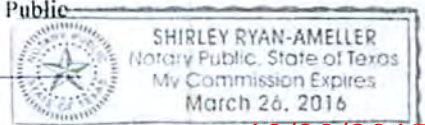
Company Official Title Sr. Regulatory Advisor

Received  
Office of Oil & Gas

Subscribed and sworn before me this 15 day of July, 20 15 JUL 31 2015

SHIRLEY RYAN-AMELLER Notary Public

My commission expires 3-26-2016



10/30/2015

09502299

Form WW-9

Operator's Well No. Yurigan 1H

Statoil USA Onshore Properties Inc.

Proposed Revegetation Treatment: Acres Disturbed 8.35 Prevegetation pH Unknown

Lime 3 Tons/acre or to correct to pH 6

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

Winter Rye - 168 lbs/acre

Tall Fescue or Orchard Grass - 40 lbs/acre

Annual Ryegrass - 40 lbs/acre

Ladino Clover - 3 lbs/acre

Redtop - 3 lbs/acre

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Michael Doff

Comments: Preseed & Mulch any disturbed areas per WVDEP regulations. Maintain & upgrade E-n-s as necessary.

Title: Oil & Gas Inspector

Date: 7/12/15

Field Reviewed?  Yes  No

Received  
Office of Oil & Gas  
JUL 31 2015

10/30/2015

09502299

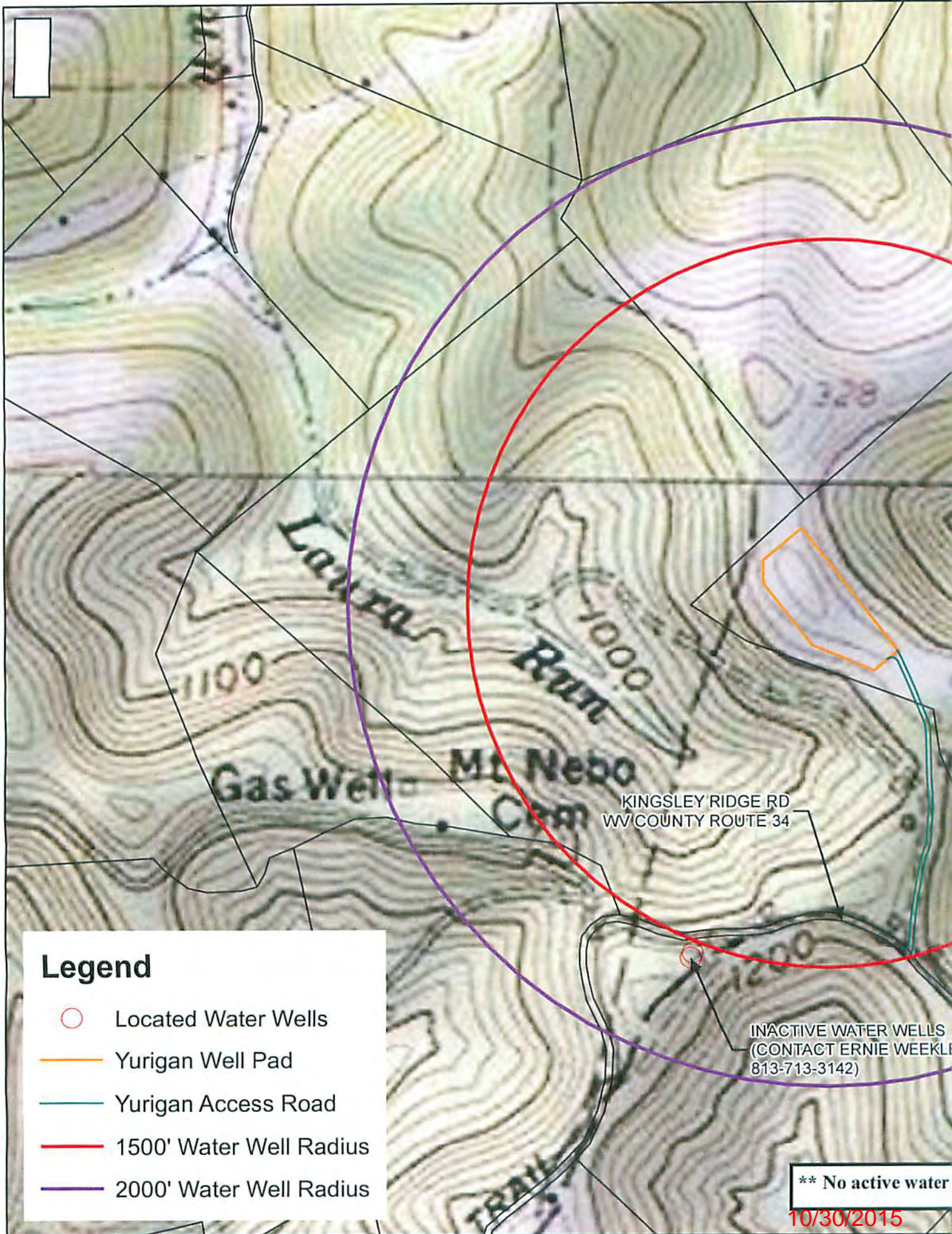


**Yurigan Pad 1H – Site Safety Plan**

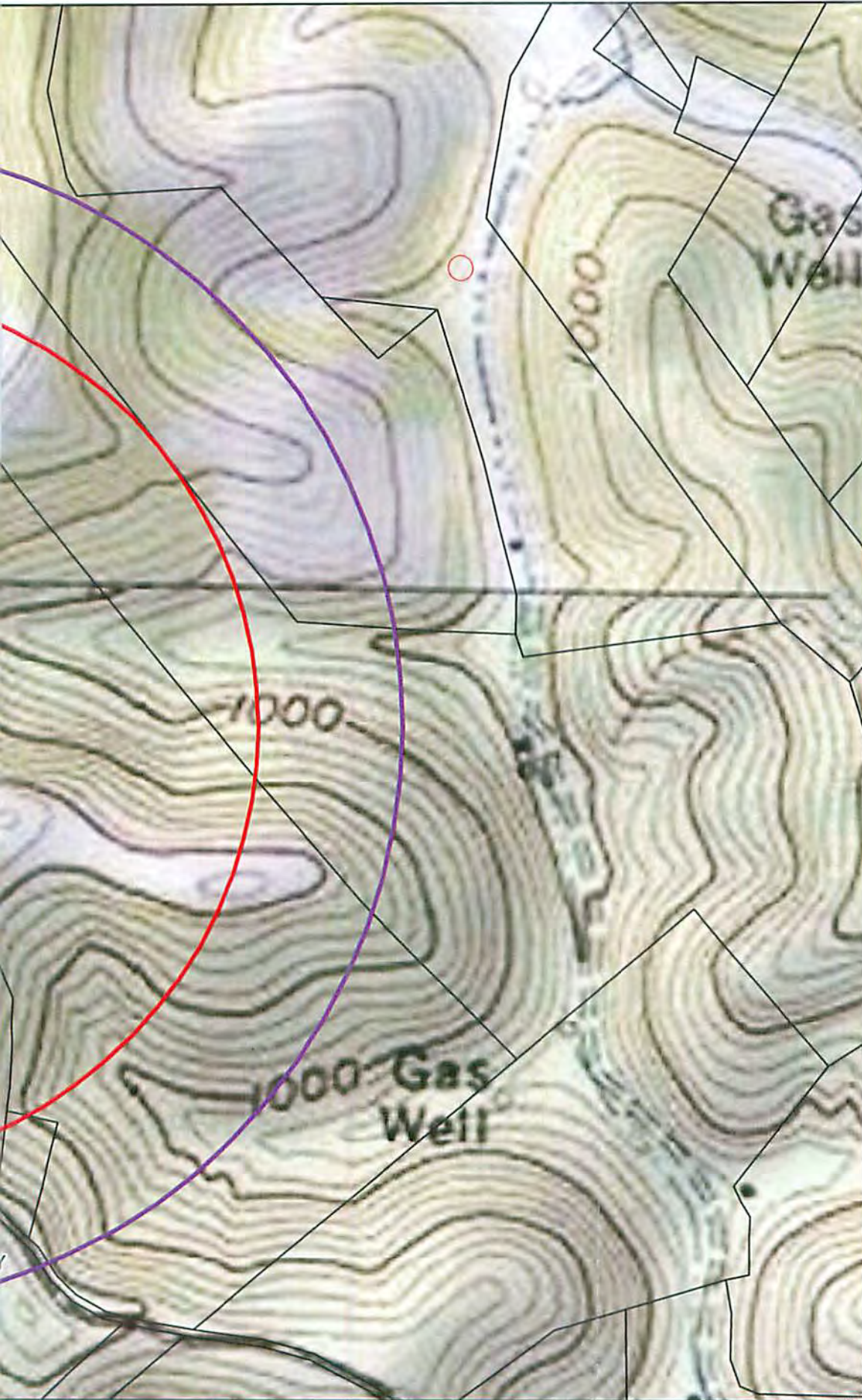
**Statoil USA Onshore Properties, Inc.**

*Michael Goff*  
*7/17/15*

10/30/2015







09 502299



Larson Design Group®

Date 8/20/2014

Designer RTC

Project No. 8790-003-6

Scale 1 inch = 500 feet

**Yurigan Water Well Map**  
 Ellsworth District, Tyler County, WV

**Wells or active springs are located within 2,000 foot radius of the proposed well site**



**SURFACE HOLE LOCATION**  
 UTM 17 - NAD 83  
 N-4372159.94  
 E-519008.10  
 WV SPC NORTH NAD83  
 N-366376.94  
 E-1607619.48

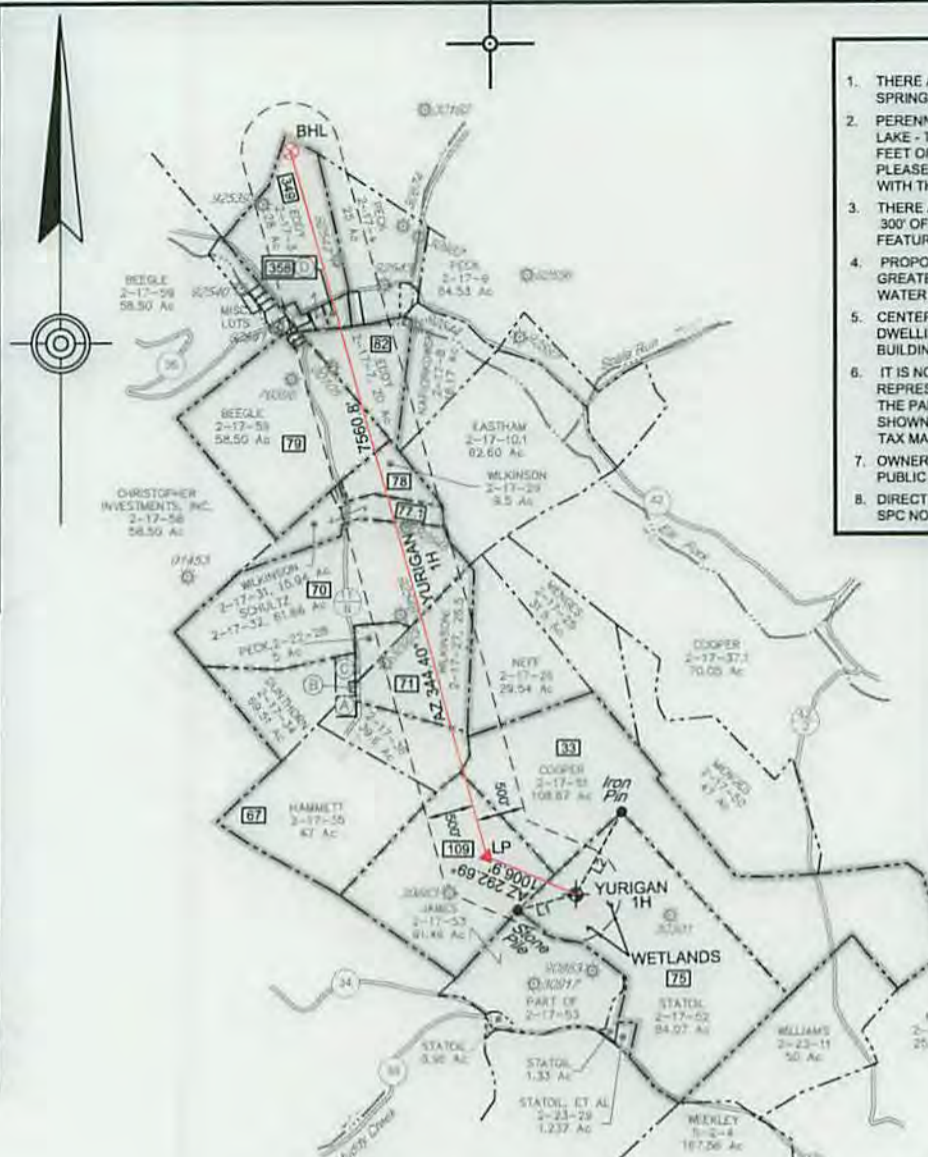
**LANDING POINT LOCATION**  
 UTM 17 - NAD 83  
 N - 4372273.53  
 E - 518723.11  
 WV SPC NORTH NAD83  
 N - 366765.29  
 E - 1606690.53

**BOTTOM HOLE LOCATION**  
 UTM 17 - NAD 83  
 N - 4374481.78  
 E - 518066.65  
 WV SPC NORTH NAD83  
 N - 374047.58  
 E - 1604657.34

Spike/Stake  
 N1°18'12"W  
 354.5'  
 S51°36'33"W  
 191.4'

WELL LOCATION REFERENCES (NTS)

**PROPERTY TIES**  
 L1 - S75°16'35"W 629.2'  
 L2 - N28°46'34"E 975.4'



- NOTES
1. THERE ARE NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF THE PROPOSED WELL.
  2. PERENNIAL STREAM, WETLAND, POND, RESERVOIR OR LAKE - THERE ARE WETLANDS LOCATED WITHIN 100 FEET OF THE PROPOSED PAD, LOD, OR E&S CONTROL. PLEASE SEE WETLAND WAIVER REQUEST ASSOCIATED WITH THIS PERMIT APPLICATION FOR MORE DETAIL.
  3. THERE ARE NO NATIVE TROUT STREAMS WITHIN 300' OF PROPOSED PAD, LOD, OR E&S CONTROL FEATURE.
  4. PROPOSED PAD, LOD, OR E&S CONTROL FEATURE IS GREATER THAN 1000' FROM SURFACE OR GROUND-WATER INTAKE OF PUBLIC WATER SUPPLY.
  5. CENTER OF PAD IS 825 FEET FROM OCCUPIED DWELLING STRUCTURE AND AGRICULTURAL BUILDINGS LARGER THAN 2500 SQUARE FEET.
  6. IT IS NOT THE INTENTION OF THIS PLAT TO REPRESENT A COMPLETE BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON. BOUNDARIES AS SHOWN TAKEN FROM RECORD DEED DESCRIPTIONS, TAX MAPS, AND SUPPLEMENTAL FIELD SURVEY.
  7. OWNERSHIP DATA GATHERED FROM COUNTY PUBLIC TAX AND DEED RECORDS.
  8. DIRECTIONS SHOWN ARE BASED ON WEST VIRGINIA SPC NORTH, NAD 83 DATUM

- LEGEND**
- OUTER LEASE BOUNDARY.
  - INTERIOR LEASE BOUNDARY
  - SURFACE TRACT LINES
  - WELL REFERENCE LINES
  - COUNTY ROADS
  - PUBLIC ROADS
  - BLUE-LINE STREAMS
  - MINERAL OWNER
  - PROPOSED WELL
  - EXISTING WELL
  - LANDING POINT
  - BOTTOM HOLE

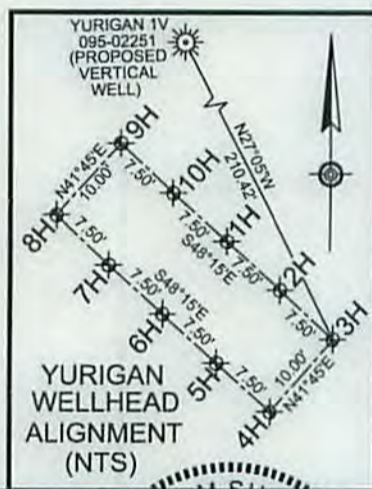


**YURIGAN 1H MINERAL OWNERSHIP**

|      |                                 |
|------|---------------------------------|
| 75   | - Almeda S. James, et al        |
| 109  | - H3 LLC                        |
| 33   | - Jonathan S. Cooper, et al     |
| 67   | - Shiben Estates                |
| 71   | - Rockford Energy, LLC Lease    |
| 70   | - Michael Paul Schwab, et al    |
| 77.1 | - Sarah Sole, et al             |
| 78   | - Beverly Lynn Schreiber, et al |
| 79   | - Michael D. Beegle             |
| 82   | - Joan Roberts Penton, et al    |
| 358  | - James & Patricia Dawson       |
| 349  | - Robert Stamm, et al           |

**PROPERTY TABULATION**

|                                |           |          |
|--------------------------------|-----------|----------|
| A - WILKINSON                  | 2-17-33   | 1.0 Ac   |
| B - MANUFACTURERS HEAT & LIGHT | 2-17-34.1 | 0.06 Ac  |
| C - WILKINSON                  | 2-17-34.2 | 1.957 Ac |
| D - DAWSON                     | 2-17-64   | 1.73 Ac  |



FILE NO. 8790-003-6  
 DRAWN BY DMS  
 SCALE 1 INCH = 2000 FEET  
 MIN DEGREE OF ACCURACY 1 IN 2500  
 PROVEN SOURCE OF ELEVATION SURVEY GRADE GPS

I, 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 DIVISION OF ENVIRONMENTAL PROTECTION

*David M. Shannon*  
 P.S. #2034



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

**LDG** Larson Design Group\*

**W.V.D.E.P. OFFICE OF OIL AND GAS**  
 601 57TH STREET  
 CHARLESTON, WV 25304

DATE 9-15-2015

OPERATORS WELL NO. YURIGAN 1H  
 API WELL NO. 47  
 STATE COUNTY PERMIT 095 02299H6A

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 IF "GAS", PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: WATERSHED ELK FORK ELEVATION 1244  
 COUNTY/DISTRICT TYLER / ELLSWORTH QUADRANGLE SHIRLEY - SEC. 3  
 SURFACE OWNER STATOIL USA ONSHORE PROPERTIES, INC. ACREAGE 84.07±  
 OIL & GAS ROYALTY OWNER SEE TABLE ABOVE ACREAGE 622.76±

PROPOSED WORK: 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 6917  
 WELL OPERATOR: STATOIL USA ONSHORE PROPERTIES, INC. DESIGNATED AGENT RICHARD PYLES  
 ADDRESS 2107 CITYWEST BOULEVARD HOUSTON TX, 77042 ADDRESS 803 NASH ROAD MIDDLEBOURNE, WV 26149

COUNTY NAME PERMIT 10/30/2015

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

| Lease Name or Number | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Book/Page |
|----------------------|-----------------------|-----------------------|---------|-----------|
|----------------------|-----------------------|-----------------------|---------|-----------|

(Please see Attachment for Details)

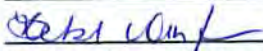
**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

Received  
Office of Oil & Gas  
JUL 31 2015

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Statoil USA Onshore Properties Inc.  
 By:   
 Its: Sr. Regulatory Advisor

Form WW-6A-1 - Preliminary Information: (Attachment)

Yurigan 1H

**NOTE: All Mineral/Unit Tracts are identified on the Well Plat in Order from Top Hole to Bottom Hole.**

**TRACT #75**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u> | <u>Grantee, Lessee</u>              | <u>Royalty</u> | <u>Book / Page</u> |
|-----------------------------|------------------------|-------------------------------------|----------------|--------------------|
| 000115306-024               | Almeda S. James        | PetroEdge Energy, LLC               | At least 1/8   | 384/79             |
| N/A                         | PetroEdge Energy, LLC  | Statoil USA Onshore Properties Inc. | Assignment     | 406/147            |
| 000115306-047               | Rhonda F. Bruich       | Statoil USA Onshore Properties Inc. | At least 1/8   | 460/296            |

**TRACT #109**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u> | <u>Grantee, Lessee</u>              | <u>Royalty</u> | <u>Book / Page</u> |
|-----------------------------|------------------------|-------------------------------------|----------------|--------------------|
| 000115615-000               | H3, LLC                | PetroEdge Energy, LLC               | At least 1/8   | 388/44             |
| N/A                         | PetroEdge Energy, LLC  | Statoil USA Onshore Properties Inc. | Assignment     | 406/147            |

**TRACT #33**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u>                            | <u>Grantee, Lessee</u>              | <u>Royalty</u> | <u>Book / Page</u> |
|-----------------------------|---|-------------------------------------|----------------|--------------------|
| 000115485-002               | Jonathan S. Cooper                                | PetroEdge Energy, LLC               | At least 1/8   | 381/205            |
| 000115485-001               | Richard Neff and Sharon Neff,<br>Husband and wife | PetroEdge Energy, LLC               | At least 1/8   | 392/443            |
| N/A                         | PetroEdge Energy, LLC                             | Statoil USA Onshore Properties Inc. | Assignment     | 406/147            |

**TRACT #67**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u> | <u>Grantee, Lessee</u>              | <u>Royalty</u>             | <u>Book / Page</u> |
|-----------------------------|------------------------|-------------------------------------|----------------------------|--------------------|
| 000115613-000               | Shibe Estates Inc.     | PetroEdge Energy, LLC               | At least 1/8 <sup>th</sup> | 387/483            |
| N/A                         | PetroEdge Energy, LLC  | Statoil USA Onshore Properties Inc. | Assignment                 | 406/147            |

JUL 31 2015  
 Office of Oil & Gas  
 Receiver

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**TRACT #71**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u> | <u>Grantee, Lessee</u>              | <u>Royalty</u>             | <u>Book / Page</u> |
|-----------------------------|------------------------|-------------------------------------|----------------------------|--------------------|
| 000115339-000               | Rockford Energy, LLC   | PetroEdge Energy, LLC               | At least 1/8 <sup>th</sup> | 389/847            |
| N/A                         | PetroEdge Energy, LLC  | Statoil USA Onshore Properties Inc. | Assignment                 | 406/147            |

**TRACT #70**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u> | <u>Grantee, Lessee</u>              | <u>Royalty</u>             | <u>Book / Page</u> |
|-----------------------------|------------------------|-------------------------------------|----------------------------|--------------------|
| 000115545-011               | Michael Paul Schwab    | PetroEdge Energy, LLC               | At least 1/8 <sup>th</sup> | 390/107            |
| 000115545-004               | Darcey Lynn Ferrell    | PetroEdge Energy, LLC               | At least 1/8 <sup>th</sup> | 387/706            |
| N/A                         | PetroEdge Energy, LLC  | Statoil USA Onshore Properties Inc. | Assignment                 | 406/147            |

**TRACT #77.1**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u>                                 | <u>Grantee, Lessee</u>              | <u>Royalty</u>             | <u>Book / Page</u> |
|-----------------------------|--|-------------------------------------|----------------------------|--------------------|
| 000115597-002               | Sarah Sole, a widow                                    | PetroEdge Energy, LLC               | At least 1/8 <sup>th</sup> | 387/51             |
| N/A                         | Life Estate Interest, Benjamin Hugh Garner (Remainder) | Statoil USA Onshore Properties Inc. | Assignment                 | 406/147            |
| 000115306-047               | PetroEdge Energy, LLC                                  | Statoil USA Onshore Properties Inc. | At least 1/8               | 468/40             |
|                             | Thelma E. Layfield                                     |                                     |                            |                    |

**TRACT #78**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u> | <u>Grantee, Lessee</u>              | <u>Royalty</u> | <u>Book / Page</u> |
|-----------------------------|------------------------|-------------------------------------|----------------|--------------------|
| 000115516-017               | Beverly Lynn Schreiber | Statoil USA Onshore Properties Inc. | At least 1/8   | 461/750            |
| 000115516-012               | Charlene Williams      | Statoil USA Onshore Properties Inc. | At least 1/8   | 460/377            |

**TRACT #79**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u>                                      | <u>Grantee, Lessee</u>              | <u>Royalty</u>             | <u>Book / Page</u> |
|-----------------------------|---|-------------------------------------|----------------------------|--------------------|
| 000115632-000               | Michael D. Beegle and<br>Sheila F. Beegle, husband and wife | PetroEdge Energy, LLC               | At least 1/8 <sup>th</sup> | 387/407            |
| N/A                         | PetroEdge Energy, LLC                                       | Statoil USA Onshore Properties Inc. | Assignment                 | 406/147            |

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**TRACT #82**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u> | <u>Grantee, Lessee</u>              | <u>Royalty</u> | <u>Book / Page</u> |
|-----------------------------|------------------------|-------------------------------------|----------------|--------------------|
| 000161552-003               | Joan Roberts Penton    | Statoil USA Onshore Properties Inc. | At least 1/8   | 466/840            |
| 000161552-014               | Linda Carter           | Statoil USA Onshore Properties Inc. | At least 1/8   | 469/74             |

**TRACT #358**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u>                               | <u>Grantee, Lessee</u>              | <u>Royalty</u>             | <u>Book / Page</u> |
|-----------------------------|--|-------------------------------------|----------------------------|--------------------|
| 000130118-000               | James Dawson and Patricia Dawson<br>husband and wife | PetroEdge Energy, LLC               | At least 1/8 <sup>th</sup> | 396/373            |
| N/A                         | PetroEdge Energy, LLC                                | Statoil USA Onshore Properties Inc. | Assignment                 | 408/66             |

**TRACT #349**

| <u>Lease Name or Number</u> | <u>Grantor, Lessor</u> | <u>Grantee, Lessee</u>              | <u>Royalty</u>             | <u>Book / Page</u> |
|-----------------------------|------------------------|-------------------------------------|----------------------------|--------------------|
| 000115490-002               | Robert Stamm           | PetroEdge Energy, LLC               | At least 1/8 <sup>th</sup> | 411/103            |
| 000115490-002               | James Clark            | PetroEdge Energy, LLC               | At least 1/8 <sup>th</sup> | 414/849            |
| N/A                         | PetroEdge Energy, LLC  | Statoil USA Onshore Properties Inc. | Assignment                 | 436/1              |

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YURIGAN ROAD CROSSING LETTERS – 7.06.2015

09502299

| YURIGAN 1H - 11  |
|------------------|
| 75               |
| 109 says rec'd ✓ |
| 67               |
| 71               |
| 70 ✓ have        |
| 77.1             |
| 78               |
| 79               |
| 82               |
| 358              |
| 349              |

-asked JGUM

complete  
7.7.2015

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JUL 31 2015

162 pgs

09502299

MILLER LAW OFFICES, PLLC

KENNETH R. MILLER  
KENNETH ALEXANDER MILLER II\*  
CHARLES K. WADE \*\*

ATTORNEYS AT LAW  
936 EAST PARK AVENUE, SUITE 2  
POST OFFICE BOX 2116  
FAIRMONT, WEST VIRGINIA 26554  
millerlawofficeswv@gmail.com  
millerlawofficeswv.com

304-366-0822  
FAX: 304-366-0825

\* Also Admitted in Ohio  
\*\* Also Admitted in Illinois

March 30, 2015

Statoil USA Onshore Properties, Inc.  
Attn: Joshua S. Ozment, Senior Landman  
MAR LAN OPR  
2103 City West Blvd, Suite 800  
Houston, TX 77042

Re: Tract Index No. 75  
Title of John Wayne Weekley, et al.  
to 84.069 acres oil and gas  
Ellsworth District, Tyler County, West Virginia  
Tax Map #2-17, parcel 52

ORIGINAL DRILLING TITLE OPINION

DESCRIPTION OF LANDS

Tract: Tax Map #2-17, parcel 52, containing 84.069 acres, more or less, located in Ellsworth District, Tyler County, West Virginia, and being the same lands described in that certain Deed of record in Deed Book 446, at page 233, in Tyler County, West Virginia.

The land referred to in this document is situated in Ellsworth District, in the County of Tyler, State of West Virginia, and is described as follows:

BEGINNING at a point in the center of Route 34, in a line of a tract of C. Campbell and from which a 5/8" steel rod is North 14° 10' 43" East 14.00 feet, thence six calls with Route 34;

North 72° 12' 24" West, a distance of 127.53 feet; thence

North 49° 23' 08" West, a distance of 92.74 feet; thence

North 43° 06' 08" West, a distance of 118.08 feet; thence

North 32° 43' 53" West, a distance of 114.78 feet; thence

North 41° 13' 53" West, a distance of 101.74 feet; thence

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JUL 31 2015



|  |                   |                   |
|--|-------------------|-------------------|
| Joseph Vann Edwards<br>[Unleased]      | 0.00151515        | 0.00151515        |
| Vincent Mitchell Edwards<br>[Unleased] | 0.00151515        | 0.00151515        |
| Carl F. Haught<br>[Unleased]           | 0.00097403        | 0.00097403        |
| Norman R. Haught<br>[Unleased]         | 0.00097403        | 0.00097403        |
| Ricky D. Haught<br>[Unleased]          | 0.00097403        | 0.00097403        |
| Louie W. Haught<br>[Unleased]          | 0.00097403        | 0.00097403        |
| Margaret L. Haught<br>[Unleased]       | 0.00097403        | 0.00097403        |
| Frances Joanne Kimble<br>[Unleased]    | 0.00064935        | 0.00064935        |
| <b>TOTAL</b>                           | <b>1.00000000</b> | <b>1.00000000</b> |

State of West Virginia Ownership Under Public Roads

Based on the materials examined in the Clerk's office, the State of West Virginia is not vested with an interest in the subject oil and gas, executive rights, or royalty under any public roads located within the boundary of the subject tract. I arrived at this conclusion after reviewing the parcel on the tax map and noticing no county roads or turnpikes traversing it. Furthermore, there are no conveyances of record to the State of West Virginia or the County Commission for roads from the owners of the oil and gas. However, the Department of Transportation might have a different opinion so it is likely wise to contact it prior to drilling under roads, if any, that overlie the subject oil and gas.

INSTRUMENTS AFFECTING THE MINERAL ESTATE

Unless otherwise noted, all references to Books, Pages and Instrument Numbers in this Opinion shall refer to those located in the office of the Clerk of the County Commission of Tyler County, West Virginia.

OIL AND GAS ESTATE:

OIL AND GAS LEASES

L1.

OIL AND GAS LEASE

DATE:

March 15, 2011

FILED:

March 17, 2011 (Memorandum Only) 2015

RECORDED:

Deed Book 380, at page 552 (Memorandum Only)

LESSOR:

John Wayne Weekley, a married man dealing in his sole and separate property

Received  
Office of Oil & Gas

RADCLIFF PLLC

09502299

Patrick N. Radcliff  
Attorney at Law  
1211 10<sup>th</sup> St.  
Vienna, WV 26105

Patrickradcliff@hotmail.com  
304-295-6027

Date: June 5, 2015

Statoil USA Onshore Properties, Inc  
Central Accounts Payable  
2103 City West Boulevard, Suite 800  
Houston, TX 77042

ATTN: Jared Guynes  
Senior Landman

RE: Tract Index No. 109  
Tax parcel No. (2)-17/53  
60 Acres  
Ellsworth District  
Tyler County, WV

**FINAL DRILLING TITLE OPINION**

I do hereby certify that I have made a personal examination of copies of records contained in the Office of the Clerk of the County Commission of Tyler County, West Virginia, and the Sheriff's Office of Tyler County, West Virginia, which records were delivered to me by your agents, and I have personally examined the indexes to such records maintained by said Clerk's Office and based upon such examination, assuming the accuracy of said copies and subject to the accuracy of the indexes to such records and further subject to the matters set forth herein and to any state of facts not appearing of record, and except as to matters shown herein to have been reported by the abstractor, I hereby certify that I have examined the title upon the above-referenced property and report the following state of title:

**DESCRIPTION OF LANDS**

The metes and bounds descriptions for said tracts are as follows:

Beginning at a C.O. on Laurel Run, a branch of Elk Fork Creek in a line of I. H. Drake and with his line N 45 E 100 poles to a stake; thence N 45 W 88 poles to a small hickory and stone; thence S 45 W 119 poles to a stone in a line of David Thompson and with the same S 58 E 90 poles to the beginning, containing 60 acres, more or less.

**This description is subject to an accurate survey.** See tax map attached as Exhibit B for further reference.

Received  
Office of Oil & Gas  
JUL 31 2015

|                  |   |                 |
|------------------|---|-----------------|
| INTEREST COVERED | 100%  | <b>09502299</b> |
| PRIMARY TERM     | 5 years   |                 |
| SECONDARY TERM   | The lease shall continue beyond the primary term for "as long thereafter as any leased minerals are produced in commercial quantities from the Premises or operations are underway on the Premises or lands unitized therewith or withdrawn from any part of the premise by Lessee. |                 |
| ASSIGNMENTS      | No assignments  |                 |

**Older Oil and Gas Lease 5.**

|                  |   |
|------------------|---|
| DATE             | May 6, 1913   |
| FILED            | May 6, 1913   |
| RECORDED         | 54 DB 68  |
| LESSOR           | James S. Wade, Administrator DBN  |
| LESSEE           | Wheeling Natural Gas Co.  |
| LANDS DESCRIBED  | The subject tract described as a tract of 60 acres,   |
| INTEREST COVERED | 100%  |
| PRIMARY TERM     | 5 years   |
| SECONDARY TERM   | The lease shall continue beyond the primary term for "as long thereafter as any leased minerals are produced in commercial quantities from the Premises or operations are underway on the Premises or lands unitized therewith or withdrawn from any part of the premise by Lessee. |
| ASSIGNMENTS      | Assigned Manufacturer's Light & Heat Co. Gas rental reduced by agreement dated April 28, 1932, 105 DB 310, made by James s Wade, agent. Well Map Location and other information maintained by WV Dept of Mines indicates well drilled 1919, still active 1957.                      |

**Interests of State of State of WVA in Roads and Easements**

The undersigned has personally reviewed the records available within the Office of the Clerk of the County Commission of Tyler County, WV, as well as those records available within the Office of the Circuit Clerk of Tyler County, WV, and based upon the same do hereby certify that State of West Virginia does not appear to own any interest in and to the Executive Mineral fee Estate under the subject lands. Said Certification is made subject only to any rights owned under Ancient Turnpikes.

Received  
Office of Oil & Gas  
JUL 31 2015

MILLER LAW OFFICES, PLLC

09502299

KENNETH R. MILLER  
KENNETH ALEXANDER MILLER II'  
CHARLES K. WADE'  
JAMES T. BOGGS'

'Also Admitted in Ohio  
'Also Admitted in Illinois  
'Also Admitted in Pennsylvania

ATTORNEYS AT LAW  
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304-366-0822  
FAX: 304-366-0825

July 1, 2015

Statoil USA Onshore Properties, Inc.  
Attn: Joshua S. Ozment, Senior Landman  
MAR LAN OPR  
2103 City West Blvd, Suite 800  
Houston, TX 77042

Re: Road Crossing Letters Requirement  
Title Index No. 67  
Title of Shiben Estates, Inc.  
to 92.65005 acres oil and gas  
Ellsworth District, Tyler County, West Virginia  
Tax Map #17, parcels 33, 34, 34.1, 34.2, 35 and 36

Dear Mr. Ozment:

Pursuant to your request, I hereby certify I have made a personal examination of the records contained in the office of the Clerk of the County Commission of Tyler County, West Virginia relative to the captioned tract.

State of West Virginia Ownership Under Public Roads

I, undersigned, have personally reviewed the records available within the Office of the Clerk of the County Commission of Tyler County, West Virginia, as well as those records available within the Office of the Circuit Clerk of Tyler County, West Virginia, and based upon the same, do hereby Certify that the State of West Virginia does not appear to own any interest in and to the Executive Mineral Fee Estate under the Subject Lands. Said Certification is made subject only to any rights owned under Ancient Turnpikes.

Respectfully submitted,



Alex Miller

Received  
Office of Oil & Gas  
JUL 31 2015

10/30/2015

12 895

RADCLIFF PLLC

09502299

Patrick N. Radcliff  
Attorney at Law  
1211 10<sup>th</sup> St.  
Vienna, WV 26105

Patrickradcliff@hotmail.com  
304-295-6027

Date: December 7, 2014

Statoil USA Onshore Properties. Inc  
Central Accounts Payable  
2103 City West Boulevard, Suite 800  
Houston, TX 77042

ATTN: Jared Guynes  
Senior Landman

RE: Tract Index No. 71  
Tax parcel No. 17-27.28  
Arthur Peck, 5 Acres  
Beverly Sadler, 26-1/2 Acres  
Ellsworth District  
Tyler County, WV

**ORIGINAL DRILLING TITLE OPINION**

I do hereby certify that I have made a personal examination of copies of records contained in the Office of the Clerk of the County Commission of Tyler County, West Virginia, and the Sheriff's Office of Tyler County, West Virginia, which records were delivered to me by your agents, and I have personally examined the indexes to such records maintained by said Clerk's Office and based upon such examination, assuming the accuracy of said copies and subject to the accuracy of the indexes to such records and further subject to the matters set forth herein and to any state of facts not appearing of record, and except as to matters shown herein to have been reported by the abstractor, I hereby certify that I have examined the title upon the above-referenced property and report the following state of title:

**DESCRIPTION OF LANDS**

**Tract 1: 26-1/2 Acres**

Tax Parcel No. 17-27, containing 26-1/2 acres, more or less, located in Ellsworth district, Tyler County, West Virginia, and more particularly described in Deed dated July 5, 1887, of record in Deed Book 12 at page 501, made by Milton Murray, et ux., to J. M. Tracy, as follows:

Beginning at a stone near the road, thence N. 44 E. 114 rods to a stone corner on ridge, thence S. 36 E. 4-1/2 rods to a stone, thence S. 2W. 100 rods to a stone in original line, thence N. 76 W. 78 rods to a Sugar Tree below the road, thence N. 2E. 10-1/2 rods to the place of beginning, containing 26-1/2 acres.

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Office of Oil & Gas

JUL 31 2015

Recorded: 28Deed Book 553  
Lessor: J. M. Tracy, et ux.  
Lessee: S.L.S. Spragg  
Tract Description: 27 acres believed to be the subject 26-1/2 acre tract  
Primary Term: 5 years  
Last Recorded Owner: Reported by S & A abstractor: Chester Oil Co. and Tri State Gas Co  
Releases: Abstractor does not report any release of record.

09502299

**Older oil and gas lease No.2 (OL.2)**

Date: October 6, 1897  
Filed: October 8, 1897  
Recorded: 34 Deed Book 436  
Lessor: J.M. Tracy, et ux.  
Lessee: Treat & Crawford.  
Tract Description: Subject 5 acre tract  
Primary Term: 5 years  
Last Recorded Owner: Abstractor does not any report assignments of record  
Releases: Abstractor does not report any release of record

**Interests of State of State of WVA in Roads and Easements**

There are no conveyances of record to the State of West Virginia for roads or other easements from the owners of the oil and gas during the period of this search and therefore, the State holds no interest in the oil and gas underlying the subject property which would affect the subject lease.

**NOTE:** However, deed references indicate show that a road, referred to as Laurel Run Road, transverses or borders the subject tract. Upon consultation with legal staff of the West Virginia Department of Transportation, it appears that the position of the State of West Virginia is that any country road taken into the state highway system by the 1933 act of the legislature and subsequent acts to include 1963 or any road labeled by the Department as an "Ancient Turnpike", includes the minerals underlying said road. However, a final determination cannot be made until all necessary information is presented to it.

Accordingly, if Statoil intends to drill under said road, it is recommended that a request for determination be made to the West Virginia Department of Transportation by email addressed as follows: [brenda.c.ellis@wv.gov](mailto:brenda.c.ellis@wv.gov) cc [eric.b.hudnall@wv.gov](mailto:eric.b.hudnall@wv.gov) containing relevant information such as road name and location. The contact person for the Department is Eric B. Hudnall, ph. 304-558-0444.

The identification of the ownership of the minerals, including the oil and gas, underlying said road is subject to the determination made by the West Virginia Department of Transportation or by a court.

**Encumbrances**

**Taxes**

2015 taxes are a lien. although not yet due. ascertainable or payable.

2014 taxes are a lien paid upon the following unpaid assessments appearing in the 2015 Land Book:

Received  
Office of Oil & Gas

JUL 31 2015

MILLER LAW OFFICES, PLLC

09502299

KENNETH R. MILLER  
KENNETH ALEXANDER MILLER II'  
CHARLES K. WADE'  
JAMES T. BOGGS'

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304-366-0822  
FAX: 304-366-0825

'Also Admitted in Ohio  
'Also Admitted in Illinois  
'Also Admitted in Pennsylvania

July 1, 2015

Statoil USA Onshore Properties, Inc.  
Attn: Joshua S. Ozment, Senior Landman  
MAR LAN OPR  
2103 City West Blvd, Suite 800  
Houston, TX 77042

Re: Road Crossing Letters Requirement  
Title Index No. 70  
Title of Charles Robert Ferrell, et al.  
to 61.66 acres oil and gas  
on the waters of Elk Fork Creek, Ellsworth District  
Tyler County, West Virginia  
Tax Map #17, Parcel 32

Dear Mr. Ozment:

Pursuant to your request, I hereby certify I have made a personal examination of the records contained in the office of the Clerk of the County Commission of Tyler County, West Virginia relative to the captioned tract.

State of West Virginia Ownership Under Public Roads

I, undersigned, have personally reviewed the records available within the Office of the Clerk of the County Commission of Tyler County, West Virginia, as well as those records available within the Office of the Circuit Clerk of Tyler County, West Virginia, and based upon the same, do hereby Certify that the State of West Virginia does not appear to own any interest in and to the Executive Mineral Fee Estate under the Subject Lands. Said Certification is made subject only to any rights owned under Ancient Turnpikes.

Respectfully submitted,



Alex Miller Received  
Office of Oil & Gas  
JUL 31 2015

MILLER LAW OFFICES, PLLC

09502299

KENNETH R. MILLER  
KENNETH ALEXANDER MILLER II'  
CHARLES K. WADE'  
JAMES T. BOGGS'

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millerlawofficeswv.com

304-366-0822  
FAX: 304-366-0825

'Also Admitted in Ohio  
'Also Admitted in Illinois  
'Also Admitted in Pennsylvania

July 1, 2015

Statoil USA Onshore Properties, Inc.  
Attn: Joshua S. Ozment, Senior Landman  
MAR LAN OPR  
2103 City West Blvd, Suite 800  
Houston, TX 77042

Re: Road Crossing Letters Requirement  
Title Index No. 77.1  
Title of Statoil USA Onshore Properties, Inc.  
to 5 acres oil and gas  
on the waters of Laurel Run of Elk Fork Creek  
Ellsworth District, Tyler County, West Virginia  
Tax Map #17, p/o Parcel 31

Dear Mr. Ozment:

Pursuant to your request, I hereby certify I have made a personal examination of the records contained in the office of the Clerk of the County Commission of Tyler County, West Virginia relative to the captioned tract.

**State of West Virginia Ownership Under Public Roads**

I, undersigned, have personally reviewed the records available within the Office of the Clerk of the County Commission of Tyler County, West Virginia, as well as those records available within the Office of the Circuit Clerk of Tyler County, West Virginia, and based upon the same, do hereby Certify that the State of West Virginia does not appear to own any interest in and to the Executive Mineral Fee Estate under the Subject Lands. Said Certification is made subject only to any rights owned under Ancient Turnpikes.

Respectfully submitted,



Alex Miller

Received  
Office of Oil & Gas

JUL 31 2015

10/30/2015



09502299

MILLER LAW OFFICES, PLLC

KENNETH R. MILLER  
KENNETH ALEXANDER MILLER II\*

\*Also Admitted in Ohio

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FAX: 304-366-0825

February 20, 2015

Statoil USA Onshore Properties, Inc.  
Attn: Joshua S. Ozment, Senior Landman  
MAR LAN OPR  
2103 City West Blvd, Suite 800  
Houston, TX 77042

Re: Tract Index No. 78  
Title of Beverly Lynn Schreiber, et al.  
To 9.5 acres oil and gas  
Waters of Laurel Run, Ellsworth District  
Tyler County, West Virginia  
Tax Map #17, parcel 29

**ORIGINAL DRILLING TITLE OPINION**

**DESCRIPTION OF LANDS**

**Tract:** Tax Map #17, parcel 29, containing 9.5 acres, more or less, located in Ellsworth District, Tyler County, West Virginia, and being the same lands described in that certain Deed of record in Deed Book 89, at page 467, in the office of the Clerk of the County Commission of Tyler County, West Virginia.

The land referred to in this document is situate on the waters of Laurel Run, Ellsworth District, in the County of Tyler, State of West Virginia, and is described as follows:

Beginning at a stone, by the County Road, where said road passes the farm of Joseph Johnston; thence North 70 East, 17 ½ rods to a stone by a drain; thence South 79° East 4 rods to a stone; thence South 83 ¾ East 39 4/5 rods to a stone in the Yankee line; thence North 42° West 53 2/5 rods to a stone; thence South 47° West 40 rods to a stone above the road; thence South 23° East 17 rods to the place of beginning, containing nine and one half (9.5) acres, more or less.

Received  
Office of Oil & Gas

JUL 31 2015

10/30/2015

|  |                   |                   |
|--|-------------------|-------------------|
| Walter M. Garrison III<br>(.00714286 x .17) [L7] | 0.00000000        | 0.00121428        |
| Karen Sue Thompson<br>(.00714286 x .17) [L7]     | 0.00000000        | 0.00121428        |
| Gladys Berry<br>(.00714286 x .17) [L7]           | 0.00000000        | 0.00121428        |
| Trudy Puccio<br>(.00714286 x .17) [L7]           | 0.00000000        | 0.00121428        |
| Emma Jo Kolek<br>(.00714286 x .17) [L7]          | 0.00000000        | 0.00121428        |
| <b>TOTAL</b>                                     | <b>1.00000000</b> | <b>1.00000000</b> |

**State of West Virginia Ownership Under Public Roads**

Based on the materials examined in the Clerk's office, the State of West Virginia is not vested with an interest in the subject oil and gas, executive rights, or royalty under any public roads located within the boundary of the subject tract. I arrived at this conclusion after reviewing the parcel on the tax map and noticing no county roads or turnpikes traversing it. Furthermore, there are no conveyances of record to the State of West Virginia or the County Commission for roads from the owners of the oil and gas. However, the Department of Transportation might have a different opinion so it is likely wise to contact it prior to drilling under roads, if any, that overlie the subject oil and gas.

**INSTRUMENTS AFFECTING THE MINERAL ESTATE**

Unless otherwise noted, all references to Books, Pages and Instrument Numbers in this Opinion shall refer to those located in the office of the Clerk of the County Commission of Tyler County, West Virginia.

**OIL AND GAS ESTATE:**

**OIL AND GAS LEASES**

**L1.**

**OIL AND GAS LEASE**

DATE: March 29, 2011  
 FILED: April 13, 2011 (Memorandum Only)  
 RECORDED: Deed Book 381, at page 262 (Memorandum Only)  
 LESSOR: Hilda Ruth Cunningham  
 LESSEE: PetroEdge Energy, LLC  
 LANDS DESCRIBED: 9.5 acres, being Tax Map 2-17-29, located in Ellsworth District, Tyler County, West Virginia

Received  
Office of Oil & Gas

JUL 31 2015

June 25, 2014

Statoil North America, Inc.  
2103 CityWest Boulevard, Suite 800  
Houston, TX 77042

Tyler = 79

Attention: Mr. Joshua S. Ozment

Re: Michael D. Beegle, et ux 54.5 Acre Tract out of Ellsworth District in Tyler County, West Virginia (Tax Parcel No. 2-17-59)

ORIGINAL DRILLING TITLE OPINION

DESCRIPTION OF LANDS

Tax Parcel No. 2-17-59, containing 54.5 acres, more or less, out of Ellsworth District in Tyler County, West Virginia, and being the same land described in a Deed, dated September 18, 2006, from Michael D. Beegle to Michael D. Beegle and wife, Sheila F. Beegle, recorded in Book 352, Page 219, Office of the Clerk of the County Commission, Tyler County, West Virginia, hereinafter referred to as the "Subject Lands." The Subject Lands are shown on the plat attached hereto as Exhibit "A."

MATERIALS EXAMINED

1. Title Runsheet, prepared by S. A. Property Research, L.L.C.'s field landman for Statoil North America, Inc., covering the Subject Lands for the period from January 1, 1830 through and including March 3, 2014 in Tyler County, West Virginia (the "Title Runsheet");
2. The public records of Tyler County, West Virginia ("Records") for the period from January 1, 1830 through and including March 3, 2014, but only insofar as the same includes those documents set forth on the above described Title Runsheet, which pertain to the Subject Lands;

Received  
Office of Oil & Gas  
JUL 31 2015

3. Copies of Tax Receipts, dated February 12, 2014, issued by Tyler County Sheriff's Tax Office, Tyler County, West Virginia, relative to the interest of BEEGLE MICHAEL D. & SHEILA F., covering PARCEL: 02-17-00590000 for tax years 2008 through 2013 as same pertain to the Subject Lands;
4. Copies of Tax Receipts, dated February 12, 2014, issued by Tyler County Sheriff's Tax Office, Tyler County, West Virginia, relative to the interest of BEEGLE MICHAEL D., covering PARCEL: 02-17-00590000 for tax years 2003 through 2007, as same pertain to the Subject Lands;
5. Copy of an unrecorded Oil and Gas Lease, dated September 19, 2011, from Michael D. Beegle and wife, Sheila F. Beegle, to PetroEdge Energy LLC, a Memorandum of which is recorded in Book 387, Page 407, Office of the Clerk of the County Commission, Tyler County, West Virginia; and
6. Copies of various plats and deed plots provided by S. A. Property Research, L.L.C's field landman covering the Subject Lands.

THE HEREINBELOW STATED OWNERSHIP INTERESTS AS SET FORTH IN THE OWNERSHIP SECTION HEREOF ARE EXPRESSLY SUBJECT TO THE COMMENTS, REQUIREMENTS AND LIMITATIONS SET FORTH HEREINBELOW. THIS OPINION IS RENDERED AS A COMPLETE DOCUMENT AND NO SEPARATE PART HEREOF SHOULD BE RELIED UPON TO THE EXCLUSION OF ANY OTHER PORTION HEREOF. THEREFORE, THIS OPINION SHOULD BE CONSIDERED IN ITS ENTIRETY.

#### OWNERSHIP

Based upon our examination of the materials referenced above, and subject to the comments, requirements, and limitations hereinafter set forth, we find title to the Subject Lands vests, as of March 3, 2014, as follows:

#### STATE OF WEST VIRGINIA OWNERSHIP UNDER PUBLIC ROADS

Based on the Materials Examined, the State of West Virginia is not vested with any interest in the oil and gas executive rights and mineral fee and the oil and gas royalty in and under any public roads located within the boundary of the Subject Lands.

Received  
Office of Oil & Gas  
JUL 31 2015

41 095

09502299

MILLER LAW OFFICES, PLLC

KENNETH R. MILLER  
KENNETH ALEXANDER MILLER II\*

ATTORNEYS AT LAW  
936 EAST PARK AVENUE, SUITE 2  
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millerlawofficeswv@gmail.com  
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304-366-0822  
FAX: 304-366-0825

\*Also Admitted in Ohio

December 19, 2014

Statoil USA Onshore Properties, Inc.  
Attn: Joshua S. Ozment, Senior Landman  
MAR LAN OPR  
2103 City West Blvd, Suite 800  
Houston, TX 77042

Re: Title Index No. 82  
Title of Mary Ann Ketelsen, et al.  
to 20.00 acres oil and gas,  
waters of Elk Horn Creek, Ellsworth District  
Tyler County, West Virginia  
Tax Map #17, p/o parcel 7

ORIGINAL DRILLING TITLE OPINION

DESCRIPTION OF LANDS

**Tract:** Tax Map #2-17, p/o parcel 7, containing 20.00 acres, more or less, located in Ellsworth District, Tyler County, West Virginia, and being the same lands described in that certain Deed of record in Deed Book 323, at page 22, in Tyler County, West Virginia.

The land referred to in this document is situated on the waters of Elk Horn Creek, Ellsworth District, in the County of Tyler, State of West Virginia, and is described as follows:

Beginning at a stone by the county road; thence S. 40° E. 98 1/2 poles to a stone in Yankey line; N. 7° E. 80 1/5 poles to a stone on creek bank; N. 70° W. 6 poles to a stone at the mouth of Board Tree Run, corner to lands of C. M. Wilcox; S. 84° W. 67 1/2 poles to the place of beginning, containing 20 acres of land, more or less.

The above land is hereinafter referred to as the Subject Lands, and a map depicting the approximate location of the Subject Lands are attached to this Opinion as Exhibit "A".

Received  
Office of Oil & Gas  
JUL 31 2015

|  |                  |                  |
|--|------------------|------------------|
| Liese Zielasko<br>Brefka   | 0.0010417        | 0.0010417        |
| Linda Zielasko<br>Killingsworth  | 0.0010417        | 0.0010417        |
| Frances Dean   | 0.0125000        | 0.0125000        |
| Joan Schick  | 0.0125000        | 0.0125000        |
| Lloyd Leslie<br>Roberts, Jr.   | 0.0125000        | 0.0125000        |
| Lola Kaminsky  | 0.0125000        | 0.0125000        |
| S. D. Roberts Moore  | 0.0250000        | 0.0250000        |
| Patricia M. Myers  | 0.0250000        | 0.0250000        |
| James Hamilton   | 0.0250000        | 0.0250000        |
| M. Susan Moore   | 0.0250000        | 0.0250000        |
| Gilbert R. Eddy<br>(Life Estate) and<br>Ronald Lee Eddy and<br>Cynthia Jane Eddy,<br>as joint tenants<br>with right of<br>survivorship<br>(Remaindermen)<br>(0.125 x .15) [L3] | 0.0000000        | 0.01875          |
| Sarah Sole (Life<br>Estate) and<br>Benjamin H. Garner<br>(Remainderman)<br>(0.125 x .17) [L4]  | 0.0000000        | 0.02125          |
| <b>TOTAL</b>   | <b>1.0000000</b> | <b>1.0000000</b> |

**State of West Virginia Ownership Under Public Roads**

Based on the materials examined in the Clerk's office, the State of West Virginia is not vested with an interest in the subject oil and gas, executive rights, or royalty under any public roads located within the boundary of the subject tract. I arrived at this conclusion after reviewing the parcel on the tax map and noticing no county roads or turnpikes traversing it. Furthermore, there are no conveyances of record to the State of West Virginia or the County Commission for roads from the owners of the oil and gas. However, the Department of Transportation might have a different opinion so it is likely wise to contact it prior to drilling under roads, if any, that overlie the subject oil and gas.

**INSTRUMENTS AFFECTING THE MINERAL ESTATE**

Received  
Office of Oil & Gas

Unless otherwise noted, all references to Books, Pages, and Instrument Numbers in this Opinion shall refer to those located in the office of the Clerk of the County Commission of Tyler County, West Virginia.

MILLER LAW OFFICES, PLLC

09502299

KENNETH R. MILLER  
KENNETH ALEXANDER MILLER II'  
CHARLES K. WADE'  
JAMES T. BOGGS'

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304-366-0822  
FAX: 304-366-0825

'Also Admitted in Ohio  
'Also Admitted in Illinois  
'Also Admitted in Pennsylvania

July 1, 2015

Statoil USA Onshore Properties, Inc.  
Attn: Joshua S. Ozment, Senior Landman  
MAR LAN OPR  
2103 City West Blvd, Suite 800  
Houston, TX 77042

Re: Road Crossing Letters Requirement  
Title Index No. 358  
Title of James Dawson, et ux.  
to 1.73593750 acres oil and gas  
waters of Elk Fork of Point Pleasant Creek  
Ellsworth District, Tyler County, West Virginia  
Tax Map #17, parcel 64

Dear Mr. Ozment:

Pursuant to your request, I hereby certify I have made a personal examination of the records contained in the office of the Clerk of the County Commission of Tyler County, West Virginia relative to the captioned tract.

**State of West Virginia Ownership Under Public Roads**

I, undersigned, have personally reviewed the records available within the Office of the Clerk of the County Commission of Tyler County, West Virginia, as well as those records available within the Office of the Circuit Clerk of Tyler County, West Virginia, and based upon the same, do hereby Certify that the State of West Virginia does not appear to own any interest in and to the Executive Mineral Fee Estate under the Subject Lands. Said Certification is made subject only to any rights owned under Ancient Turnpikes.

Respectfully submitted,

  
Alex Miller

Received  
Office of Oil & Gas

JUL 31 2015

10/30/2015

09502299

MILLER LAW OFFICES, PLLC

KENNETH R. MILLER  
KENNETH ALEXANDER MILLER II'  
CHARLES K. WADE'  
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millerlawofficeswv.com

304-366-0822  
FAX: 304-366-0825

'Also Admitted in Ohio  
'Also Admitted in Illinois  
'Also Admitted in Pennsylvania

July 1, 2015

Statoil USA Onshore Properties, Inc.  
Attn: Joshua S. Ozment, Senior Landman  
MAR LAN OPR  
2103 City West Blvd, Suite 800  
Houston, TX 77042

Re: Road Crossing Letters Requirement  
Title Index No. 349  
Title of Oxy USA Inc. et al.  
To 24.89 acres oil and gas  
Ellsworth District, Tyler County, West Virginia  
Tax Map #17, p/o parcel 3

Dear Mr. Ozment:

Pursuant to your request, I hereby certify I have made a personal examination of the records contained in the office of the Clerk of the County Commission of Tyler County, West Virginia relative to the captioned tract.

**State of West Virginia Ownership Under Public Roads**

I, undersigned, have personally reviewed the records available within the Office of the Clerk of the County Commission of Tyler County, West Virginia, as well as those records available within the Office of the Circuit Clerk of Tyler County, West Virginia, and based upon the same, do hereby Certify that the State of West Virginia does not appear to own any interest in and to the Executive Mineral Fee Estate under the Subject Lands. Said Certification is made subject only to any rights owned under Ancient Turnpikes.

Respectfully submitted,



Alex Miller

Received  
Office of Oil & Gas  
JUL 31 2015

10/30/2015



**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE CERTIFICATION**

**09502299**

Date of Notice Certification: 07/29/2015

API No. 47- \_\_\_\_\_  
Operator's Well No. 1H  
Well Pad Name: Yurigan

**Notice has been given:**

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

|                                     |   |
|-------------------------------------|---|
| State: <u>West Virginia</u>         | UTM NAD 83 Easting: <u>519008.10</u>          |
| County: <u>Tyler</u>                | Northing: <u>4372159.94</u>                   |
| District: <u>Ellsworth</u>          | Public Road Access: <u>CR 11 &amp; 34/3</u>   |
| Quadrangle: <u>Shirley - Sec. 3</u> | Generally used farm name: <u>Yurigan Farm</u> |
| Watershed: <u>Elk Fork</u>          |   |

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

|   |   |
|---|---|
| <p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input checked="" type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p> | <p><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/<br/>NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/<br/>NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> |
|---|---|

**Required Attachments:**

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

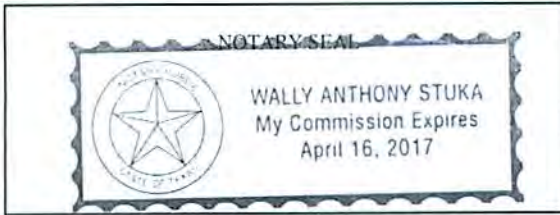
Received  
Office of Oil & Gas  
JUL 31 2015

09502299

**Certification of Notice is hereby given:**

THEREFORE, I Bekki Winfree, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

|                |  |            |  |
|----------------|--|------------|--|
| Well Operator: | <u>Statoil USA Onshore Properties Inc.</u> | Address:   | <u>2103 City West Boulevard, Suite 800</u> |
| By:            | <u>Bekki Winfree/ <i>Bekki Winfree</i></u> |            | <u>Houston, TX 77042</u>                   |
| Its:           | <u>Sr. Regulatory Advisor</u>              | Facsimile: | <u>713-918-8290</u>                        |
| Telephone:     | <u>713-485-2640</u>                        | Email:     | <u>BEKW@Statoil.com</u>                    |



Subscribed and sworn before me this 29 day of July, 2015  
*Wally Anthony Stuka* Notary Public  
 My Commission Expires April 16, 2017

**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](mailto:depprivacyofficer@wv.gov).

Received  
Office of Oil & Gas  
JUL 31 2015

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF INTENT TO DRILL

09502299

**WAIVER**

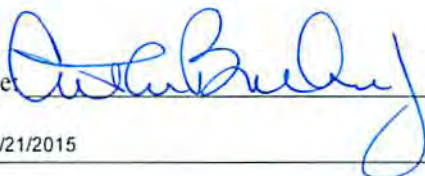
Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

**Surface Owner Waiver:**

I, Statoil USA Onshore Properties Inc., hereby state that I have read the notice provisions listed above and hereby waive the notice requirements under West Virginia Code § 22-6A-16(b) for the tract of land as follows:

|             |                         |                           |           |                       |
|-------------|-------------------------|---------------------------|-----------|-----------------------|
| State:      | <u>West Virginia</u>    | UTM NAD 83                | Easting:  | <u>519008.10</u>      |
| County:     | <u>Tyler</u>            |                           | Northing: | <u>4372159.94</u>     |
| District:   | <u>Ellsworth</u>        | Public Road Access:       |           | <u>CR 11 and 34/3</u> |
| Quadrangle: | <u>Shirley - Sec. 3</u> | Generally used farm name: |           | <u>Yurigan Farm</u>   |
| Watershed:  | <u>Elk Fork</u>         |                           |           |                       |

Name: Statoil USA Onshore Properties Inc.  
Address: 2103 CityWest Blvd. Suite 800  
Houston, Texas 77042

Signature:   
Date: 07/21/2015

**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](mailto:depprivacyofficer@wv.gov).

Received  
Office of Oil & Gas  
JUL 31 2015

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF APPLICATION**

**Notice Time Requirement:** notice shall be provided no later than the filing date of permit application.

**Date of Notice:** 07/22/2015 **Date Permit Application Filed:** 07/30/2015

**Notice of:**

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

**Delivery method pursuant to West Virginia Code § 22-6A-10(b)**

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice  WSSP Notice  E&S Plan Notice  Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: Statoil USA Onshore Properties Inc.  
Address: 2103 CityWest Blvd. Suite 800  
Houston, Texas 77042

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: See Attachment  
Address: \_\_\_\_\_

COAL OPERATOR

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: None within 2,000 feet  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

\*Please attach additional forms if necessary.

**Received**  
**Office of Oil & Gas**  
**JUL 31 2015**

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

**This Notice Shall Include:**

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the State. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

WW-6A  
(8-13)

API NO. 47-09502299  
OPERATOR WELL NO. Yurigan 1H  
Well Pad Name: YURIGAN

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

#### **Water Well Testing:**

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

#### **Water Testing Laboratories:**

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

#### **Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:**

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

#### **Written Comment:**

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. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

Received  
Office of Oil & Gas  
JUL 31 2015

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

10/30/2015

**Time Limits and Methods for Filing Comments.**

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

**Comment Requirements**

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

**Permit Denial or Condition**

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Received  
Office of Oil & Gas  
JUL 31 2015

WW-6A  
(8-13)

API NO. 47 09502299  
OPERATOR WELL NO. Yurigan 1H  
Well Pad Name: YURIGAN

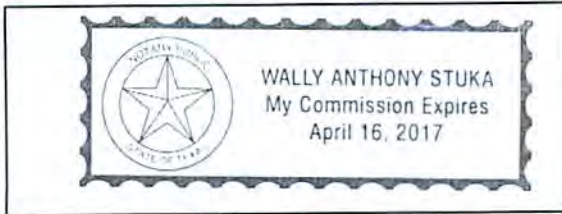
**Notice is hereby given by:**

Well Operator: STATOIL USA ONSHORE  
Telephone: 713-918-8200  
Email: BEKW@Statoil.com *[Signature]*

Address: 2103 CityWest Blvd. Suite 800  
Houston, TX 77042  
Facsimile: 713-918-8290

**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 [deprivacyofficer@wg.gov](mailto:deprivacyofficer@wg.gov).



Subscribed and sworn before me this 30 day of July, 2015.  
Wally Anthony Stuka Notary Public  
My Commission Expires April 16, 2017

Received  
Office of Oil & Gas  
JUL 31 2015

10/30/2015



STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF INTENT TO DRILL

**WAIVER**

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

**Surface Owner Waiver:**

I, Statoil USA Onshore Properties Inc., hereby state that I have read the notice provisions listed above and hereby waive the notice requirements under West Virginia Code § 22-6A-16(b) for the tract of land as follows:

|             |                         |                           |           |                       |
|-------------|-------------------------|---------------------------|-----------|-----------------------|
| State:      | <u>West Virginia</u>    | UTM NAD 83                | Easting:  | <u>519008.10</u>      |
| County:     | <u>Tyler</u>            |                           | Northing: | <u>4372159.94</u>     |
| District:   | <u>Ellsworth</u>        | Public Road Access:       |           | <u>CR 11 and 34/3</u> |
| Quadrangle: | <u>Shirley - Sec. 3</u> | Generally used farm name: |           | <u>Yurigan Farm</u>   |
| Watershed:  | <u>Elk Fork</u>         |                           |           |                       |

Name: Statoil USA Onshore Properties Inc.  
Address: 2103 CityWest Blvd. Suite 800  
Houston, Texas 77042

Signature:   
Date: 07/21/2015

**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](mailto:depprivacyofficer@wv.gov).

Received  
Office of Oil & Gas  
JUL 31 2015

YURIGAN 1H – OWNERS ATTACHMENT

Coal Owners – 62

John Wayne Weekley ✓  
Route 1, Box 352  
New Martinsville, WV 26155

Denver E. Haught ✓  
112 Winters Drive  
Ripley, WV 25271

Patricia Carol Fonner ✓  
520 Ashwood Drive  
Newport News, VA 23602

Linda Kathryn Lee ✓  
1292 Edgefield Road  
York, SC 29745

Norma Louise Franks ✓  
4 West Askren Street  
Uniontown, PA 15401

Carolyn Williams ✓  
Route 1, Box 354  
Middlebourne, WV 26149

Ernest E. Black ✓  
Rural Route 3, Box 209  
Wheeling, WV 26003

Jacqueline H. Posey ✓  
44 Center Avenue  
Wheeling, WV 26003

Robert E. Weekley ✓  
3842 Quaker Ridge Street  
Zephyr Hills, FL 33542

Almeda S. James ✓  
1009 North Breens Bay Road  
Oconomowoc, WI 53066

Duane Clark ✓  
HC 69, Box 6  
Alma, WV 26320

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JUL 31 2015  
JUL 31 2015

09502299

Mark A. Schafer ✓  
8793 Stonehenge Circle  
Pickerington, OH 43147

Gail A. Mason ✓  
41 Snowmass Court  
O'Fallon, MO 63368

Cynthia M. Sax (Schafer) ✓  
12029 Rutherglen Place  
Bristow, VA 20136

David C. Schafer ✓  
9393 Deer Ridge  
Mentor, OH 44060

James F. Clark ✓  
111 Shasta Cove  
Georgetown, TX 78628

Sharon E. Fonnest ✓  
1543 North Main Street  
Niles, OH 44446

Mark Fletcher ✓  
501 4<sup>th</sup> Street  
Middlebourne, WV 26149

Michael C. Fletcher ✓  
344 Caines Boulevard  
Winchester, KY 40391

Matthew C. Fletcher ✓  
764 Virginia Road  
Marion, NC 28752

Lewis A. Clark ✓  
7115 Merrimac Drive  
McLean, VA 22101

Mary Elizabeth Clark ✓  
118 Rebrook Street  
Clarksburg, WV 26301

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JUL 31 2015

10/30/2015

09502299

Karen Lynch ✓  
667 Raymond Drive  
Lewiston, NY 14092

Edward Lynch ✓  
4561 Townline Road  
Ransonville, NY 14131

Mary Jean Buddenhagen ✓  
6824 Grauer Road  
Niagara Falls, NY 14305

Thomas Lynch ✓  
667 Raymond Drive  
Lewiston, NY 14092

Michael Lynch ✓  
816 22<sup>nd</sup> Street  
Niagara Falls, NY 14301

Virginia Irene Patton ✓  
10850 Green Mountain Circle, Unit 411  
Columbia, MD 21044-2478

Deborah Mann ✓  
4455 Taylor Drive  
Niagara Falls, NY 14304

Holly Hill Campbell ✓  
101 Tudor Drive  
Williamsburg, VA 23188

Brown Memorial Park Avenue ✓  
United Presbyterian Church  
1316 Park Avenue  
Baltimore, MD 21217

Helen Gaull Boyll ✓  
50 Capron Street  
Danielson, CT 06239

John J. Lynch ✓  
602 78<sup>th</sup> Street  
Niagara Falls, NY 14304

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Office of Oil & Gas  
JUL 31 2015

10/30/2015

09502299

Clyde B. Ross, Jr. ✓  
State Route 534, Box 134  
Damascus, OH 44619

Randy Caplinger ✓  
6204 Larkhall Drive  
Madison, OH 44057

Sandra K. Haught Byham ✓  
19643 Arthur Street #205C  
Meadville, PA 16335

Nichole J. Tremblay ✓  
1820 Mohawk Avenue  
Warren, PA 16365

Kevin R. Kiser ✓  
20790 Route 6  
Warren, PA 16365

John R. Kiser ✓  
96 Pleasant Drive  
Warren, PA 16365

Kit A. Kiser ✓  
303 Wilderness Trailer Park  
Clarendon, PA 16313

Norman L. Kiser ✓  
4603 Buffalo Road, Apartment 4  
Erie, PA 16510

Jean Ann Gaul ✓  
211 49<sup>th</sup> Avenue West  
Bradenton, FL 34207

John Frederick Gaul ✓  
211 49<sup>th</sup> Avenue West  
Bradenton, FL 34207

Lisa Hare Cutchin ✓  
6104 Spring Meadow Lane  
Frederick, MD 21701

Received  
Office of Oil & Gas  
JUL 31 2015

10/30/2015

09502299

Douglas Morrison Padrutt ✓  
4503 SAucon Valley Court  
Alexandria, VA 22312

James Lynch ✓  
2930 Ontario Avenue  
Niagara Falls, NY 14305

Lura Padrutt Griffiths ✓  
4515 SE 30<sup>th</sup> Avenue  
Portland, OR 97202

Rhonda F. Bruich ✓  
154 Owings Street  
Weirton, WV 26062

Robert Alan Ross ✓  
213 Louise Lane  
Toano, VA 23168

Richard Harold Ross ✓  
8810 Pocahontas Trail, Trailer 44  
Williamsburg, VA 23185

Roger W. Ross ✓  
364 Lynchburg Drive  
Newport News, VA 23606

Ronald Paul Ross ✓  
16852 Polish Town Road  
Lanexa, VA 23089

James Madison University ✓  
605 Port Republic Road  
Harrisonburg, VA 22801

Christine Gay ✓  
5010 Toucan Lane  
Kernersville, NC 27284

Joseph Vann Edwards ✓  
75 Salem Drive  
Pinehurst, NC 28374

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Office of Oil & Gas  
JUL 31 2015

10/30/2015

09502299

Vincent Mitchell Edwards ✓  
416 Charleston Drive  
Clayton, NC 27527

Carl F. Haught ✓  
815 Mitchell Street  
Calvert, TX 77837

Norman R. Haught ✓  
14769 S. Norrisville Road  
Meadville, PA 16335

Ricky D. Haught ✓  
18337 Southwood Drive  
Meadville, PA 16335

Louie W. Haught ✓  
1045 Menis Road  
Weimar, TX 78962

Margaret L. Haught ✓  
17223 Kiowa River Lane  
Houston, TX 77095

Frances Joanne Kimble ✓  
103 Field Court  
Harbinger, NC 27941

10/30/2015

09502299

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF ENTRY FOR PLAT SURVEY

**Notice Time Requirement:** Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to entry

**Date of Notice:** 3/18/2014      **Date of Planned Entry:** 3/25/2014

**Delivery method pursuant to West Virginia Code § 22-6A-10a**

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

**Notice is hereby provided to:**

SURFACE OWNER(s)

Name: James Joseph Yurigan, Jr.  
Address: 3169 Main Street Weirton, WV 26062 ✓

Name: William J. & Almeda James ✓  
Address: 1009 N. Breens Bay Road Oconomowoc, WI 53066

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: James Joseph Yurigan, Jr.  
Address: 3169 Main Street Weirton, WV 26062 ✓

MINERAL OWNER(s)

Name: Almeda S. James  
Address: 1009 Breemsway Road Oconomowoc, WI 53066 ✓

\*\*Additional Documents Attached  
\*please attach additional forms if necessary

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

|                                     |  |
|-------------------------------------|--|
| State: <u>West Virginia</u>         | Approx. Latitude & Longitude: <u>Lat 39.498866 Long -80.778994</u> |
| County: <u>Tyler County</u>         | Public Road Access: <u>CR 34</u>                                   |
| District: <u>Ellsworth District</u> | Watershed: <u>Middle Ohio North</u>                                |
| Quadrangle: <u>Shirley</u>          | Generally used farm name: <u>Yurigan Farm</u>                      |

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator: STATOIL USA ONSHORE PROPERTIES INC.  
Telephone: 713-918-8200  
Email: BEKW@STATOIL.COM

Address: 2103 CITYWEST BLVD. STE. 800 HOUSTON, TX 77042  
Facsimile: 713-918-8290

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Office of Oil & Gas  
JUL 31 2015

**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](mailto:depprivacyofficer@wv.gov).



Additional Mineral Owner(s):

0 9 5 0 2 2 9 9

Brown Memorial Park Avenue Presbyterian Church ✓  
1316 Park Avenue  
Baltimore, Maryland 21217

C. Rhadine Ross ✓  
2462 Kings Creek Road  
Weirton, WV 26062

Carolyn Williams ✓  
Rt. 1, Box 354  
Middlebourne, WV 26149

Clyde Ross Jr. ✓  
St. Rt. 534 Box 134  
Damascus, Ohio 44619

David and Sandra L. Schafer ✓  
9393 Deer Ridge Drive  
Mentor, Ohio 44060

Deborah Mann ✓  
4455 Taylor Drive  
Niagara Falls, NY 14304

Denver E. Haught ✓  
112 Winters Drive  
Ripley, WV 25271

Douglas Morrison Padrutt ✓  
4503 Saucon Valley Court  
Alexandria, VA 22312

Duane Clark ✓  
HC 69, Box 6  
Alma, WV 26320

Edward Lynch ✓  
4561 Townline Road  
Ransonville, NY 14131

Ernest E. Black ✓  
RR 3 Box 209  
Wheeling, WV 26003

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Yurigan 1H – WW-6A3 Attachment

09502299

Gail A. and Richard W. Mason ✓  
41 Snowmass Court  
O'Fallon, Missouri 63368

Helen Gaul Boyll ✓  
Assisted Living Home  
c/o Westcott- Wilcox Home  
50 Capron Street  
Danielson, Connecticut 06239

Holly Hill Campbell ✓  
101 Tutor Drive  
Williamsburg, VA 23188

Jacqueline H. Posey ✓  
44 Center Avenue  
Wheeling, WV 26003

James Clark ✓  
111 Shasta Grove  
Georgetown, Texas 78628

James Lynch ✓  
2930 Ontario Avenue  
Niagara Falls, NY 14305

James Madison University ✓  
605 Port Republic Road  
Harrisonburg, VA 22801

Jean Ann Gull ✓  
211 49th Avenue West  
Bradenton, FL 34207

Jean Isabel Hare ✓  
c/o Lisa Cutchin, POA  
6104 Spring Meadow Lane  
Frederick, Maryland 21701

John Frederick Goul ✓  
211 49th Avenue West  
Bradenton, FL 34201

John J. Lynch ✓  
602 78th Street  
Niagara Falls, NY 14304

Received  
Office of Oil & Gas  
JUL 31 2015

Yurigan 1H – WW-6A3 Attachment

09502299

John Kiser ✓  
96 Pleasant Drive  
Warren, PA 16365

John Wayne Weekly ✓  
Rt. 1, Box 352  
New Martinsville, WV 26155

Karen Lynch ✓  
667 Raymond Drive  
Lewiston, NY 14092

Kevin Kiser ✓  
20790 Route 6  
Warren, PA 16365

Kit Kiser ✓  
303 Wilderness Trailer Part  
Clarendon, PA 16313

Lewis Clark ✓  
3210 Kingston Place  
Dulle, Virginia 20189

Linda Kathryn Lee ✓  
1292 Edgefield Road  
York, SC 29745

Lura Marjorie Padrutt ✓  
4154 Royal Court  
Portland, OR 97232

Mark and Kelly Schafer ✓  
8793 Stonehenge Circle  
Pickerington, Ohio 43147

Mary Elizabeth Clark ✓  
118 Rebrook Street  
Clarksburg, WV 26301

Mary Jean Buddenhagen ✓  
6824 Graver Road  
Niagara Falls, NY 14305  
719-545-5709

Michael Lynch ✓  
862 22nd Street  
Niagara Falls, NY 14301

Received  
Office of Oil & Gas  
JUL 31 2015

09502299

Nichole Trembly ✓  
1820 Mohawk Avenue  
Warren, PA 16365

Norma Fletcher ✓  
P. O. Box 212  
Middlebourne, WV 26149

Norma Louise Franks ✓  
4 W. Askren Street  
Uniontown, PA 15401

Norman L. Kiser ✓  
4603 Buffalo Road Apartment 4  
Erie, PA 16510

Patrica Carol Fonner ✓  
520 Ashwood Drive  
Newport News, VA 23612

Randy Caplinger ✓  
6204 Larkhill Drive  
Madison, Ohio 44057

Robert Ernest Weekley ✓  
3842 Quaker Ridge Street  
Zephyr Hills, FL 33542

Sam and Cynthia Sax ✓  
12029 Rutherglen Place  
Bristol, Virginia 20136

Sandra K. Haught Byham ✓  
19643 Arthur Street #205C  
Meadville, PA 16335

Sharon E. Fonnert ✓  
1543 N. Main Street  
Niles, Ohio 44446

Thomas Lynch ✓  
667 Raymond Drive  
Lewiston, NY 14092

Received  
Office of Oil & Gas  
JUL 31 2015

Yurigan 1H – WW-6A3 Attachment

09502299

Virginia Irene Patton  
10850 Green Mountain  
Circle #411  
Columbia, Maryland 21044

Received  
Office of Oil & Gas  
JUL 31 2015

WW-6A5  
(1/12)

Operator Well No. Yungan 1H

09502299

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 07/27/2015 Date Permit Application Filed: 7/29/15

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  HAND  
DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)  
(at the address listed in the records of the sheriff at the time of notice):

Name: Statoil USA Onshore Properties Inc. Name: \_\_\_\_\_  
Address: 2103 CityWest Blvd, Suite 800 Address: \_\_\_\_\_  
Houston, Texas 77042

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: 519008.10  
County: Tyler Northing: 4372159.94  
District: Ellsworth Public Road Access: CR 11 and CR 34/3  
Quadrangle: Shirley - Sec. 3 Generally used farm name: Yurigan Farm  
Watershed: Elk Fork

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: Statoil USA Onshore Properties Inc. Address: 2103 CityWest Blvd, Suite 800  
Telephone: 713-918-8200 Houston, Texas 77042  
Email: bekw@statoil.com Facsimile: 713-918-8290

Oil and Gas Privacy Notice:

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received  
Office of Oil & Gas  
JUL 31 2015

10/30/2015

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF INTENT TO DRILL

**WAIVER**

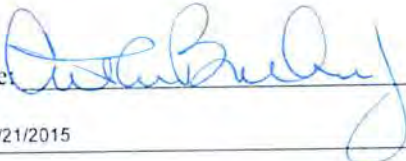
Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

**Surface Owner Waiver:**

I, Statoil USA Onshore Properties Inc., hereby state that I have read the notice provisions listed above and hereby waive the notice requirements under West Virginia Code § 22-6A-16(b) for the tract of land as follows:

|             |                         |                           |           |                       |
|-------------|-------------------------|---------------------------|-----------|-----------------------|
| State:      | <u>West Virginia</u>    | UTM NAD 83                | Easting:  | <u>519008.10</u>      |
| County:     | <u>Tyler</u>            |                           | Northing: | <u>4372159.94</u>     |
| District:   | <u>Ellsworth</u>        | Public Road Access:       |           | <u>CR 11 and 34/3</u> |
| Quadrangle: | <u>Shirley - Sec. 3</u> | Generally used farm name: |           | <u>Yurigan Farm</u>   |
| Watershed:  | <u>Elk Fork</u>         |                           |           |                       |

Name: Statoil USA Onshore Properties Inc.  
Address: 2103 CityWest Blvd. Suite 800  
Houston, Texas 77042

Signature:   
Date: 07/21/2015

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09502299

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
**Division of Highways**

1900 Kanawha Boulevard East • Building Five • Room 110  
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin  
Governor

Paul A. Mattox, Jr., P. E.  
Secretary of Transportation/  
Commissioner of Highways

July 14, 2015

James A. Martin, Chief  
Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

Subject: DOH Permit for the Yurigan Pad Tyler County  
Yurigan 1H

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit # 06 -2014-0554 for the subject site to Statoil USA Onshore Properties Inc. for access to the State Road for the well site located off of Tyler County Route 34 SLS.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Received  
Office of Oil & Gas  
JUL 31 2015

Very Truly Yours,

Gary K. Clayton  
Regional Maintenance Engineer  
Central Office Oil & Gas Coordinator

Cc: Courtney Battle  
Statoil USA Onshore Properties Inc.  
CH, OM, D-6  
File



## Frac Additives

09502299

### BIO CLEAR 2000

| Components                        | CAS#       |
|-----------------------------------|------------|
| Polyethylene Glycol               | 25322-68-3 |
| 2,2-dibromo-3-nitrilopropionamide | 10222-01-2 |

### BUFFER

|               |           |
|---------------|-----------|
| Sulfamic Acid | 5329-14-6 |
|---------------|-----------|

### ACID

|                   |           |
|-------------------|-----------|
| Hydrochloric Acid | 7647-01-0 |
|-------------------|-----------|

### BREAKER

|                 |          |
|-----------------|----------|
| Sucrose         | 57-50-1  |
| Ethylene Glycol | 107-21-1 |

### INHIBITOR

|                         |            |
|-------------------------|------------|
| Ethoxylated Nonylphenol | 68412-54-4 |
| Dimethylcocoamine       | 68607-28-3 |
| Ethylene Glycol         | 107-21-1   |
| Glycol Ethers           | 111-76-2   |
| Methanol                | 67-56-1    |
| Propargyl Alcohol       | 107-19-7   |

### SCALE INHIBITOR

|                 |          |
|-----------------|----------|
| Ethylene Glycol | 107-21-1 |
|-----------------|----------|

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Office of Oil & Gas  
JUL 31 2015

10/30/2015

09502299

FRICTION REDUCER

|                               |            |
|-------------------------------|------------|
| Sodium Chloride               | 7647-14-5  |
| Ammonium Chloride             | 12125-02-9 |
| Petroleum Distillates         | 64742-47-8 |
| Alcohols, C12-16, Ethoxylated | 68551-12-2 |

SAND

|                             |            |
|-----------------------------|------------|
| Crystalline Silica (quartz) | 14808-60-7 |
| Aluminum Oxide              | 1344-28-1  |
| Iron Oxide                  | 1309-37-1  |
| Titanium Oxide              | 13463-67-7 |

GEL

|                              |            |
|------------------------------|------------|
| Gelling Agent & Hydrocarbons | 64742-96-7 |
|------------------------------|------------|

Received  
Office of Oil & Gas  
JUL 31 2015

10/30/2015

**APPROVED  
WVDEP OOG**

9/23/2015

# YURIGAN (02-006) WELL PAD SITE

## SITE DESIGN AND CONSTRUCTION PLANS EROSION AND SEDIMENT CONTROL PLANS

ELLSWORTH DISTRICT, TYLER COUNTY, WEST VIRGINIA  
ELK FORK RUN WATERSHED



**LOCATION COORDINATES**

**ACCESS ROAD ENTRANCE**

LATITUDE: 39 494786 LONGITUDE: -80 777498 (NAD 83)  
N 4371701.24 E 519132.13 (UTM ZONE 17 METERS NAD 83)

**CENTER OF WELL PAD**

LATITUDE: 39 498819 LONGITUDE: -80 778709 (NAD 83)  
N 4372134.66 E 519025.82 (UTM ZONE 17 METERS NAD 83)

**GENERAL DESCRIPTION**

THE ACCESS ROAD(S) AND COMBINED WELL AND FACILITIES PAD ARE BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

**MISS UTILITY STATEMENT**

PROJECT DESIGN TICKET # 1410262007  
IN ADDITION, MISS UTILITY WILL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR THIS PROJECT.

**ENTRANCE PERMIT**

WVDOH WM-109 PERMIT #6-2014-0554 ISSUED 09/25/2014 FOR WELL SITE ACCESS. EXPIRES 09/25/2015 UNLESS RENEWED.

**ENVIRONMENTAL NOTES**

WETLAND DELINEATIONS WERE PERFORMED BETWEEN APRIL 12 TO APRIL 18, 2014 BY LARSON DESIGN GROUP TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP). THE YURIGAN (WV-8) JURISDICTIONAL STREAMS & WETLANDS MAPS WERE PREPARED BY LARSON DESIGN GROUP AND SUMMARIZE THE RESULTS OF THE FIELD DELINEATION. THE MAPS DO NOT IN ANY WAY REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USAGE OF THE WVDEP. IT IS STRONGLY RECOMMENDED THAT THE AFOREMENTIONED AGENCIES BE CONSULTED IN AN EFFORT TO OBTAIN WRITTEN CONFIRMATION OF THE DELINEATION SHOWN ON THIS EXHIBIT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

**GEOTECHNICAL NOTE**

A GEOTECHNICAL INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED BY LARSON DESIGN GROUP ON JUNE 9TH THROUGH JUNE 11TH, 2014. THE REPORT PREPARED BY LARSON DESIGN GROUP IN JULY, 2014 REFLECTS THE RESULTS OF THE SURFACE INVESTIGATION. THE INFORMATION AND RECOMMENDATIONS WERE USED IN THE PREPARATION OF THESE PLANS. PLEASE REFER TO THE PRELIMINARY GEOTECHNICAL INFORMATION BY LARSON DESIGN GROUP FOR ADDITIONAL INFORMATION, AS NEEDED.

**PROJECT CONTACTS**

**OPERATOR**

STATOL  
2133 CITY WEST BLVD., SUITE 800  
HOUSTON, TX 77042  
PHONE: (713) 918-8200

**CLIENT LONG - MANAGER, CIVIL CONSTRUCTION**

OFFICE: (713) 485-2617  
CELL: (713) 261-8633

**RESTRICTIONS NOTES:**

1. THERE ARE NO PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE WELL PAD AND LOD.
2. THERE ARE NO NATURALLY FLOODING TROUT STREAMS WITHIN 300 FEET OF THE WELL PAD AND LOD.
3. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE WELL PAD AND LOD.
4. THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF THE WELL(S) BEING DRILLED.
5. THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.
6. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.

**PARCEL DISTURBANCE**

TOTAL LIMITS OF DISTURBANCE = 13.3 AC  
DISTURBANCE ON PROPERTY OF STATOL (PARCEL 2-17-52) = 12.0 AC  
DISTURBANCE ON PROPERTY OF STATOL (PARCEL ID UNASSIGNED) = 1.3 AC

**ACCESS ROAD AND PAD DISTURBANCES**

TOTAL LIMITS OF DISTURBANCE = 13.3 AC  
WELL PAD DISTURBANCE = 9.3 AC  
ACCESS ROAD DISTURBANCE = 2.0 AC



**SHEET INDEX**

- 1 COVER SHEET
- 2-3 CONSTRUCTION AND E&S CONTROL NOTES
- 4 EXISTING CONDITIONS
- 5 OVERALL PLAN SHEET INDEX & VOLUMES
- 6-7 EROSION & SEDIMENTATION CONTROL PLAN
- 8 WELL PAD GRADING PLAN AND CONTAINMENT PLAN
- 9 FACILITIES LAYOUT
- 10-12 ACCESS ROAD CROSS SECTIONS
- 13 WELL PAD CROSS SECTIONS
- 14 STOCKPILE PROFILES AND SECTIONS
- 15-17 CONSTRUCTION DETAILS
- 18-19 RECLAMATION PLAN

**DESIGN CERTIFICATION**

THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS ATTACHED HERETO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF DL AND GAS CSR 30-B.

MISS Utility of West Virginia  
1-800-245-4848  
West Virginia State Law  
(Section XIV, Chapter 24-C)  
Requires that you call two  
business days before you dig in  
the state of West Virginia.  
IT'S THE LAW!!

| PROPOSED WELL NAME | WV PERMIT #                 | WV 80801 #                  | UTM (US SURVEY) FT. NAD 27 - ZONE 17 | UTM (METERS) NAD 83 - ZONE 17 | AND RT. LAT. & LONG.             | ELEVATION (FEET) WLL. SURF. W/ WELLHEAD |
|--------------------|-----------------------------|-----------------------------|--------------------------------------|-------------------------------|----------------------------------|---|
| 1#                 | N 368341.44<br>E 1839640.88 | N 368378.94<br>E 1827618.48 | N 4343811.05<br>E 1702231.71         | N 4372159.94<br>E 519028.10   | LAT 39 498847<br>LONG -80 778125 | 1262.0'                                 |
| 2#                 | N 368336.44<br>E 1839666.26 | N 368371.94<br>E 1827625.08 | N 4343608.18<br>E 1702737.39         | N 4372158.45<br>E 519025.83   | LAT 39 498834<br>LONG -80 778905 | 1261.7'                                 |
| 3#                 | N 368331.45<br>E 1839671.89 | N 368366.99<br>E 1827630.68 | N 4343603.28<br>E 1702743.06         | N 4372156.98<br>E 519021.58   | LAT 39 498821<br>LONG -80 778885 | 1261.4'                                 |
| 4#                 | N 368323.98<br>E 1839685.20 | N 368359.48<br>E 1827634.02 | N 4343595.71<br>E 1702736.54         | N 4372154.55<br>E 519029.57   | LAT 39 498777<br>LONG -80 778958 | 1260.8'                                 |
| 5#                 | N 368328.99<br>E 1839699.60 | N 368364.48<br>E 1827638.42 | N 4343600.81<br>E 1702730.86         | N 4372156.14<br>E 519027.64   | LAT 39 498842<br>LONG -80 778928 | 1260.8'                                 |
| 6#                 | N 368333.97<br>E 1839695.99 | N 368369.47<br>E 1827642.82 | N 4343605.90<br>E 1702725.19         | N 4372157.63<br>E 519025.10   | LAT 39 498827<br>LONG -80 778949 | 1260.8'                                 |
| 7#                 | N 368338.97<br>E 1839709.41 | N 368374.47<br>E 1827647.23 | N 4343610.99<br>E 1702719.51         | N 4372159.13<br>E 519023.58   | LAT 39 498840<br>LONG -80 778969 | 1260.7'                                 |
| 8#                 | N 368343.98<br>E 1839722.81 | N 368379.46<br>E 1827651.63 | N 4343615.30<br>E 1702713.83         | N 4372160.62<br>E 519022.04   | LAT 39 498853<br>LONG -80 778989 | 1260.7'                                 |
| 9#                 | N 368348.97<br>E 1839736.23 | N 368384.45<br>E 1827656.03 | N 4343620.60<br>E 1702708.15         | N 4372162.11<br>E 519020.52   | LAT 39 498875<br>LONG -80 779009 | 1260.7'                                 |
| 10#                | N 368353.96<br>E 1839749.64 | N 368389.44<br>E 1827660.43 | N 4343625.90<br>E 1702702.47         | N 4372163.60<br>E 519019.00   | LAT 39 498897<br>LONG -80 779029 | 1260.7'                                 |
| WELL PAD ELEVATION |                             |                             |                                      |                               |                                  | 1240.80'                                |

**COVER SHEET**  
**YURIGAN (02-006) WELL SITE**  
ELLSWORTH DISTRICT, TYLER COUNTY, WEST VIRGINIA

Larson Design Group • Civil Engineers Surveyors  
2025 Cranberry Square  
Morgantown, WV 26508  
Phone: (304) 877-3333 FAX: (304) 877-3333  
www.larsondesigngroup.com

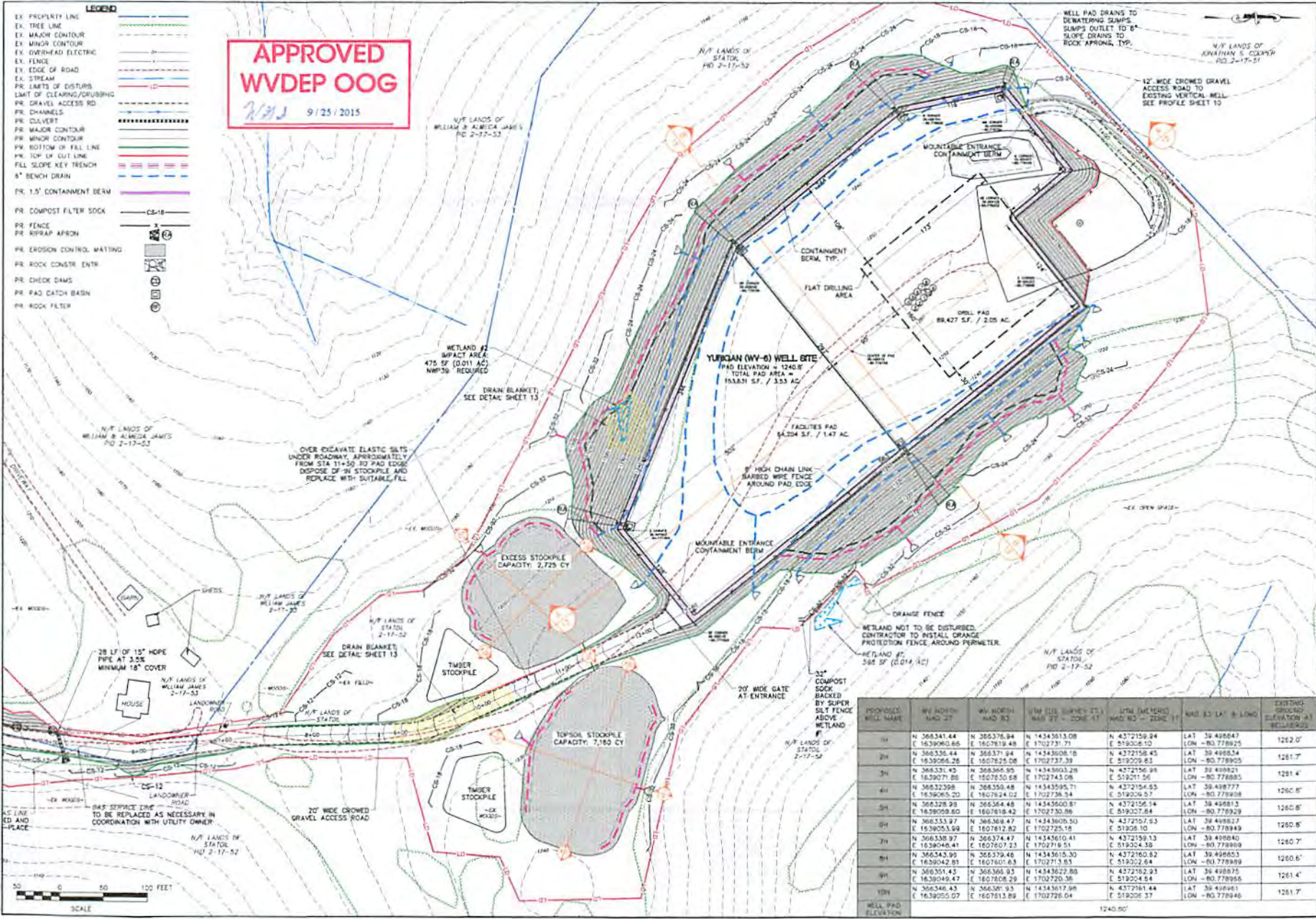
**STATOL**  
2133 CITY WEST BLVD., SUITE 800  
HOUSTON, TX 77042  
PHONE: 713.918.8200

SHEET NO: **1 OF 19**  
PROJECT NO: 8790-003-E

- LEGEND**
- EX. PROPERTY LINE
  - EX. TREE LINE
  - EX. MAJOR CONTOUR
  - EX. MINOR CONTOUR
  - EX. OVERHEAD ELECTRIC
  - EX. FENCE
  - EX. EDGE OF ROAD
  - EX. STREAM
  - PR. LIMITS OF DISTURB
  - PR. LIMIT OF CLEARING/RUBBING
  - PR. GRAVEL ACCESS RD
  - PR. CHANNELS
  - PR. CULVERT
  - PR. MAJOR CONTOUR
  - PR. MINOR CONTOUR
  - PR. BOTTOM OF FILL LINE
  - PR. TOP OF CUT LINE
  - FILL SLOPE KEY TRENCH
  - 6" BENCH DRAIN
  - PR. 1.5' CONTAINMENT BERM
  - PR. COMPOST FILTER SOCK
  - PR. FENCE
  - PR. SOPRAN APRON
  - PR. EROSION CONTROL MATTING
  - PR. ROCK CONSTR ENTR
  - PR. CHECK DAMS
  - PR. PAD CATCH BASIN
  - PR. ROCK FILTER

**APPROVED WVDEP OOG**

2/15 9/25/2015



| PROPOSED WELL NAME | WV NORTH WAD 27             | WV NORTH WAD 83             | UTM ELS SURVEY TT-3 WAD 27 - CODE 41 | UTM (METERS) WAD 82 - 200E 11 | NAD 83 LAT & LONG                | EXISTING GROUND ELEVATION AT WELLHEAD |
|--------------------|-----------------------------|-----------------------------|--------------------------------------|-------------------------------|----------------------------------|---------------------------------------|
| 10a                | N 366341.44<br>E 1639060.65 | N 365376.94<br>E 1637816.48 | N 14343613.08<br>E 1702737.71        | N 4372159.24<br>E 519208.02   | LAT 38.428847<br>LONG -80.778925 | 1262.0'                               |
| 20a                | N 366336.44<br>E 1639066.26 | N 365371.94<br>E 1637825.08 | N 14343608.78<br>E 1702737.39        | N 4372158.45<br>E 519209.83   | LAT 38.428854<br>LONG -80.778905 | 1261.7'                               |
| 30a                | N 366331.42<br>E 1639071.88 | N 365366.95<br>E 1637830.68 | N 14343603.28<br>E 1702743.08        | N 4372156.98<br>E 519211.56   | LAT 38.428821<br>LONG -80.778885 | 1261.4'                               |
| 40a                | N 366323.98<br>E 1639085.20 | N 365359.48<br>E 1637834.02 | N 14343595.71<br>E 1702736.54        | N 4372154.53<br>E 519206.07   | LAT 38.428777<br>LONG -80.778908 | 1260.8'                               |
| 50a                | N 366328.98<br>E 1639090.60 | N 365364.48<br>E 1637838.42 | N 14343600.87<br>E 1702750.96        | N 4372156.74<br>E 519207.84   | LAT 38.428813<br>LONG -80.778928 | 1260.8'                               |
| 60a                | N 366333.97<br>E 1639053.99 | N 365368.47<br>E 1637812.82 | N 14343606.50<br>E 1702725.18        | N 4372157.53<br>E 519208.10   | LAT 38.428827<br>LONG -80.778949 | 1260.8'                               |
| 70a                | N 366338.97<br>E 1639048.41 | N 365374.47<br>E 1637807.23 | N 14343610.41<br>E 1702716.51        | N 4372159.38<br>E 519204.38   | LAT 38.428940<br>LONG -80.778909 | 1260.7'                               |
| 80a                | N 366343.95<br>E 1639042.81 | N 365379.48<br>E 1637801.63 | N 14343615.30<br>E 1702711.93        | N 4372160.82<br>E 519202.64   | LAT 38.428653<br>LONG -80.778919 | 1260.6'                               |
| 90a                | N 366355.43<br>E 1639039.47 | N 365386.93<br>E 1637808.29 | N 14343622.88<br>E 1702720.38        | N 4372162.23<br>E 519204.54   | LAT 38.428675<br>LONG -80.778955 | 1261.4'                               |
| 100a               | N 366346.43<br>E 1639055.07 | N 365381.93<br>E 1637815.89 | N 14343617.68<br>E 1702726.04        | N 4372161.44<br>E 519206.37   | LAT 38.428661<br>LONG -80.778946 | 1261.7'                               |



Larson Design Group



**EROSION & SEDIMENTATION CONTROL PLAN**  
**YURIGAN (WV-0) WELL SITE**  
 ELLSWORTH DISTRICT, TYLER COUNTY, WEST VIRGINIA

Larson Design Group • Civil/Engrg. Surveyors  
 2505 Crandall Avenue  
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 Phone: 304.777.1742, Toll Free: 877.321.6623  
 Fax: 304.313.9603 • www.larsondesign.com

SHEET NO. **7 OF 19**  
 PROJECT NO. 879C-003-6