



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Monday, November 4, 2019
WELL WORK PERMIT
Horizontal 6A / New Drill

TUG HILL OPERATING, L.L.C
380 SOUTHPOINTE BLVD
CANONSBURG, PA 15317

Re: Permit approval for HUDSON S-4HM
47-051-02251-00-00

This well work permit 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 any additional specific 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 of 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.

Per 35 CSR 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- 0450.

James A. Martin
Chief

Operator's Well Number: HUDSON S-4HM
Farm Name: CNX LAND LLC
U.S. WELL NUMBER: 47-051-02251-00-00
Horizontal 6A New Drill
Date Issued: 11/4/2019

Promoting a healthy environment.

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

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. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. 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.
10. 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.



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Austin Caperton, Cabinet Secretary
dep.wv.gov

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

TO: Tug Hill Operating
380 Southpointe Boulevard, Plaza II, Suite 200
Cannonsburg, Pa 15317

DATE: November 1, 2019
ORDER NO.: 2019-W-14

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 Tug Hill Operating (hereinafter "Tug Hill" 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. Tug Hill is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 380 Southpointe Boulevard, Plaza II, Suite 200, Cannonsburg, Pa 15317.
3. On June 24, 2019 Tug Hill submitted well work permit applications identified as APIs# 47-051-02248, 47-051-02249, 47-051-02250, and 47-051-02251. The proposed wells are to be located on the Hudson Pad in the Meade District of Marshall County, West Virginia.
4. On June 24, 2019 Tug Hill requested a waiver for Wetlands 1 and 3 as outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API# # 47-051-02248, 47-051-02249, 47-051-02250, and 47-051-02251.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in 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 “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 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 “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. The Office of Oil and Gas grants the request for a waiver for Wetlands 1 and 3 from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API# # 47-051-02248, 47-051-02249, 47-051-02250, and 47-051-02251. The Office of Oil and Gas hereby **ORDERS** that Tug Hill shall meet the following site construction and operational requirements for the Hudson 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 twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland 1 and 3 shall be protected by both super silt fence and twenty-four inch (24”) compost filter sock. This along rip-rap outlets, temporary and permanent vegetative cover will prevent sediment from reaching the wetlands;
- 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 1st day of November, 2019.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

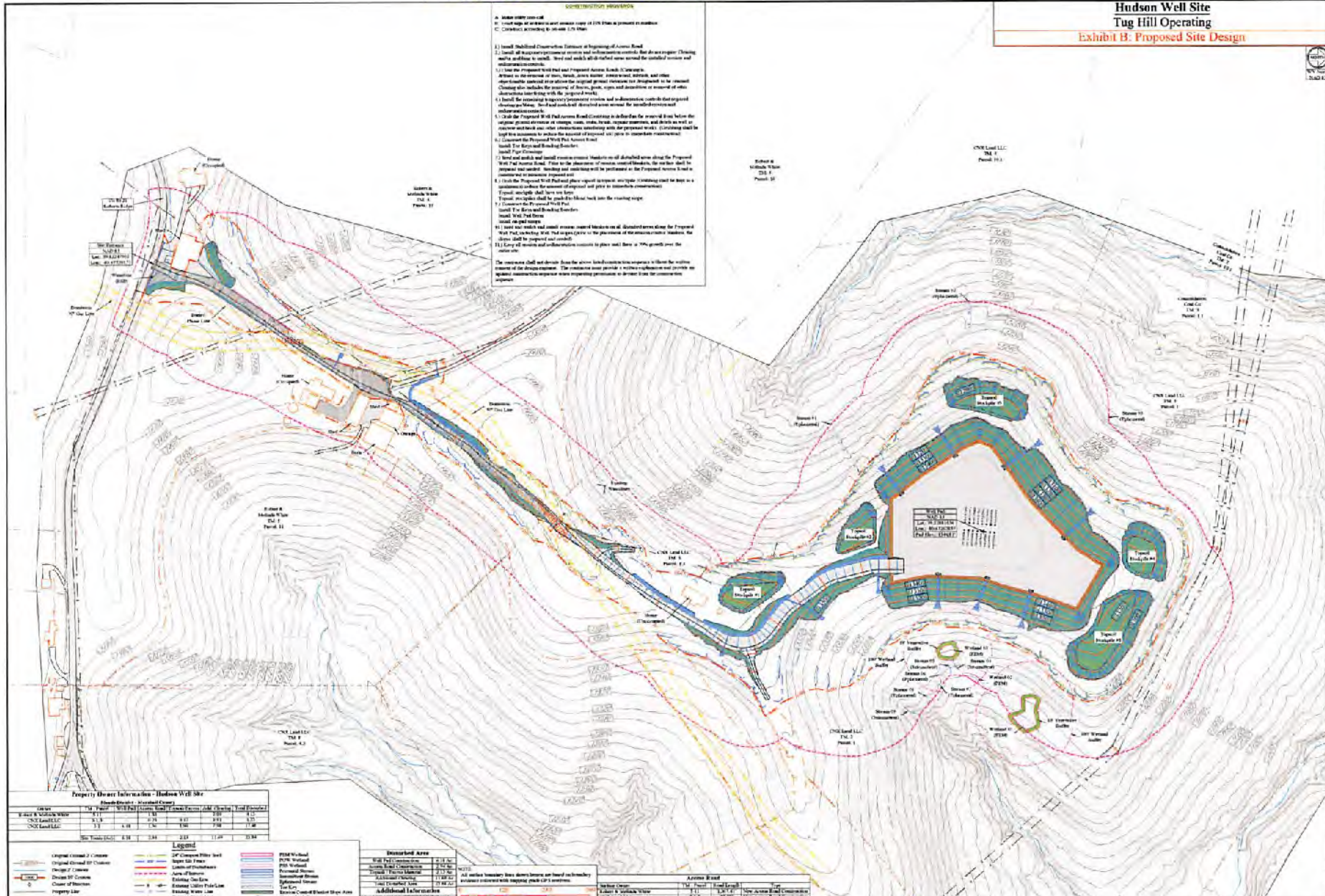
OFFICE OF OIL AND GAS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF WEST VIRGINIA

By: 
JAMES A. MARTIN, CHIEF

Attachment 1

Hudson Well Site Tug Hill Operating Exhibit B: Proposed Site Design

- CONSTRUCTION SEQUENCE**
1. Install stabilized construction entrance at beginning of Access Road.
 2. Install all major performance criteria and infrastructure controls that the design engineer deems appropriate. Check with the contractor to verify that all work is installed as shown on the site plan.
 3. Install the proposed Work Pad and proposed Access Road.
 - a. Where the proposed Work Pad and proposed Access Road are to be installed, the contractor shall install the proposed Work Pad and proposed Access Road in accordance with the design. The contractor shall install the proposed Work Pad and proposed Access Road in accordance with the design. The contractor shall install the proposed Work Pad and proposed Access Road in accordance with the design.
 4. Install the proposed major performance criteria and infrastructure controls that the design engineer deems appropriate. Check with the contractor to verify that all work is installed as shown on the site plan.
 5. Install the proposed Work Pad Access Road.
 - a. The contractor shall install the proposed Work Pad Access Road in accordance with the design. The contractor shall install the proposed Work Pad Access Road in accordance with the design. The contractor shall install the proposed Work Pad Access Road in accordance with the design.
 6. Install the proposed Work Pad Access Road.
 - a. The contractor shall install the proposed Work Pad Access Road in accordance with the design. The contractor shall install the proposed Work Pad Access Road in accordance with the design. The contractor shall install the proposed Work Pad Access Road in accordance with the design.
 7. Install the proposed Work Pad Access Road.
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 8. Install the proposed Work Pad Access Road.
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 9. Install the proposed Work Pad Access Road.
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 10. Install the proposed Work Pad Access Road.
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 11. Install the proposed Work Pad Access Road.
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 12. Install the proposed Work Pad Access Road.
 - a. The contractor shall install the proposed Work Pad Access Road in accordance with the design. The contractor shall install the proposed Work Pad Access Road in accordance with the design. The contractor shall install the proposed Work Pad Access Road in accordance with the design.
- The contractor shall not disturb the area shown in the construction sequence to be disturbed until the entire site is constructed. The contractor shall not disturb the area shown in the construction sequence to be disturbed until the entire site is constructed. The contractor shall not disturb the area shown in the construction sequence to be disturbed until the entire site is constructed.



Property Owner Information - Hudson Well Site

OWNER	TRACT	WELL PAD	ACCESS ROAD	CONSTRUCTION	WATER	LAND	WATER
W. & W. HOLDINGS	1.1	1.2	1.3	1.4	1.5	1.6	1.7
CNR LAND LLC	2.1	2.2	2.3	2.4	2.5	2.6	2.7
CNR LAND LLC	3.1	3.2	3.3	3.4	3.5	3.6	3.7

Legend

Original Contour Lines	Proposed Work Pad	Proposed Access Road	Proposed Pond
Design 7 Contour	Design 7 Contour	Design 7 Contour	Design 7 Contour
Design 7 Contour	Design 7 Contour	Design 7 Contour	Design 7 Contour
Design 7 Contour	Design 7 Contour	Design 7 Contour	Design 7 Contour
Design 7 Contour	Design 7 Contour	Design 7 Contour	Design 7 Contour

Proposed Area

WELL PAD CONSTRUCTION	1.1	1.2	1.3
ACCESS ROAD CONSTRUCTION	2.1	2.2	2.3
CONSTRUCTION	3.1	3.2	3.3
WATER	4.1	4.2	4.3
LAND	5.1	5.2	5.3

Additional Information

WELL PAD CONSTRUCTION	1.1	1.2	1.3
ACCESS ROAD CONSTRUCTION	2.1	2.2	2.3
CONSTRUCTION	3.1	3.2	3.3
WATER	4.1	4.2	4.3
LAND	5.1	5.2	5.3

Area 11

WELL PAD CONSTRUCTION	1.1	1.2	1.3
ACCESS ROAD CONSTRUCTION	2.1	2.2	2.3
CONSTRUCTION	3.1	3.2	3.3
WATER	4.1	4.2	4.3
LAND	5.1	5.2	5.3

TUG HILL OPERATING

Hudson Well Site
Marble District
Marshall County, WV

Proposed Site Design

DATE: 05/20/2014
SCALE: AS SHOWN
DESIGNED BY: JLS
P.L. NO.:
EXHIBIT B

Wetland and Perennial Stream Waiver Request

Well Operator: Tug Hill Operating, LLC

Well Number: S-1HM

Well Pad Name: Hudson Well Pad

County, District, Quadrangle of Well Location: Marshall, Meade, Glen Easton

1. Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.

The Hudson Well Pad is a proposed pad located along County Route 21 (Roberts Ridge Rd) in Meade District, Marshall County, WV. The proposed project is located along a ridge top. The proposed project location will be within 100' of two delineated wetlands (Wetland 01 & Wetland 03). Exhibit A, Current Site Conditions, will be attached and made part of this waiver request. Exhibit A shows the location of Wetland 01 and Wetland 03.

Wetland 01: Wetland 01 is located on the eastern side of the proposed well pad outside of the Proposed Limits of Disturbance (LOD). Wetland 01 is situated downslope of the proposed well pad. The proposed well pad drainage system will divert surface water from the well pad away from Wetland 01. Super Silt Fence and 24" Compost Filter Sock shall be installed upslope of Wetland 01 to control perimeter run-off and also provide a physical barrier between the work area and the protected area. There will be a 69' buffer between the proposed LOD and Wetland 01.

Wetland 03: Wetland 03 is located on the eastern side of the proposed well pad outside of the Proposed Limits of Disturbance (LOD). Wetland 01 is situated downslope of the proposed well pad. The proposed well pad drainage system will divert surface water from the well pad away from Wetland 03. Super Silt Fence and 24" Compost Filter Sock shall be installed upslope of Wetland 01 to control perimeter run-off and also provide a physical barrier between the work area and the protected area. There will be a 49' buffer between the proposed LOD and Wetland 03.

2. Justify the proposed activity by describing alternatives to the project that were considered.

a. Include a No-Action Alternative to show "the future without the project"

b. Location Alternatives must be shown

c. Must demonstrate why a one hundred buffer cannot be maintained

d. Describe how the proposed project is the least environmentally damaging practicable alternative.

2a. No-Action Alternative: In a no-action alternative to the proposed project, the proposed well pad would not be constructed at the proposed location and an alternative site would need to be located and analyzed for suitability. The wetlands would remain in their current state in the cattle pasture field.

2b.1. Location Alternative #1: The alternative to providing additional erosion and sediment controls upslope of the existing wetlands as shown on Exhibit B, Proposed Site Design, would be to modify the proposed pad design to allow for a 100' buffer from the wetlands. The proposed modification would require a retaining wall structure to support the side slope of the well pad. A retaining wall structure would help to provide a 100' buffer from the wetlands but would also pose a safety issue for the landowner's livestock as well as limit the ability of the landowner to gather hay from the well pad fill slopes.

2c. Must Demonstrate why a one hundred foot buffer cannot be maintained: See Exhibit A, Existing Site Conditions. A 100' buffer cannot be maintained due to the location of the proposed well pad and close proximity to the delineated wetlands. The location of the wells is controlled by current mining operations under the proposed location and prevents the pad from being shifted to the west to allow for a 100' buffer from the site LOD to the proposed wetlands.

2d. Describe how the proposed project is the least environmentally damaging practicable alternative: The proposed design, as shown on Exhibit B, Proposed Site Design is the least environmentally damaging practicable alternative because it will allow for the construction of the proposed well site, protection of the existing wetlands, and provide useable area for the landowner once the construction of the site is complete. Constructing a retaining wall structure on the site to provide the 100' buffer would lead to a safety concern for the landowner for livestock within the field area as well as to the landowner if they gather hay from the well pad side slopes.

3. Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.

Wetland 01 & Wetland 02 will be protected with Super Silt Fence and 24" compost filter sock. The controls shall be installed upslope of the wetlands.

4. Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.

4.a Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect these wetlands and/or perennial streams for which the waiver is sought.

See Exhibit B, Proposed Design for the proposed site layout and protective control installation locations.

Vegetative Buffer: A minimum 10' vegetative buffer shall be maintained around the wetland at all times during the slip repair operation. The minimum 10' vegetative buffer will be outside of the proposed LOD within the current pasture field.

Super Silt Fence: Super silt fence shall be installed at the perimeter of the proposed LOD. The super silt fence shall provide sedimentation control above the wetland to prevent sediments and other materials from being carried downslope to the wetland. Should any large material, typically rock or stone, manage to roll down a slope, the chainlink fence structure shall act as a net to capture the material before it can proceed further downslope towards the wetlands.

API Number: _____

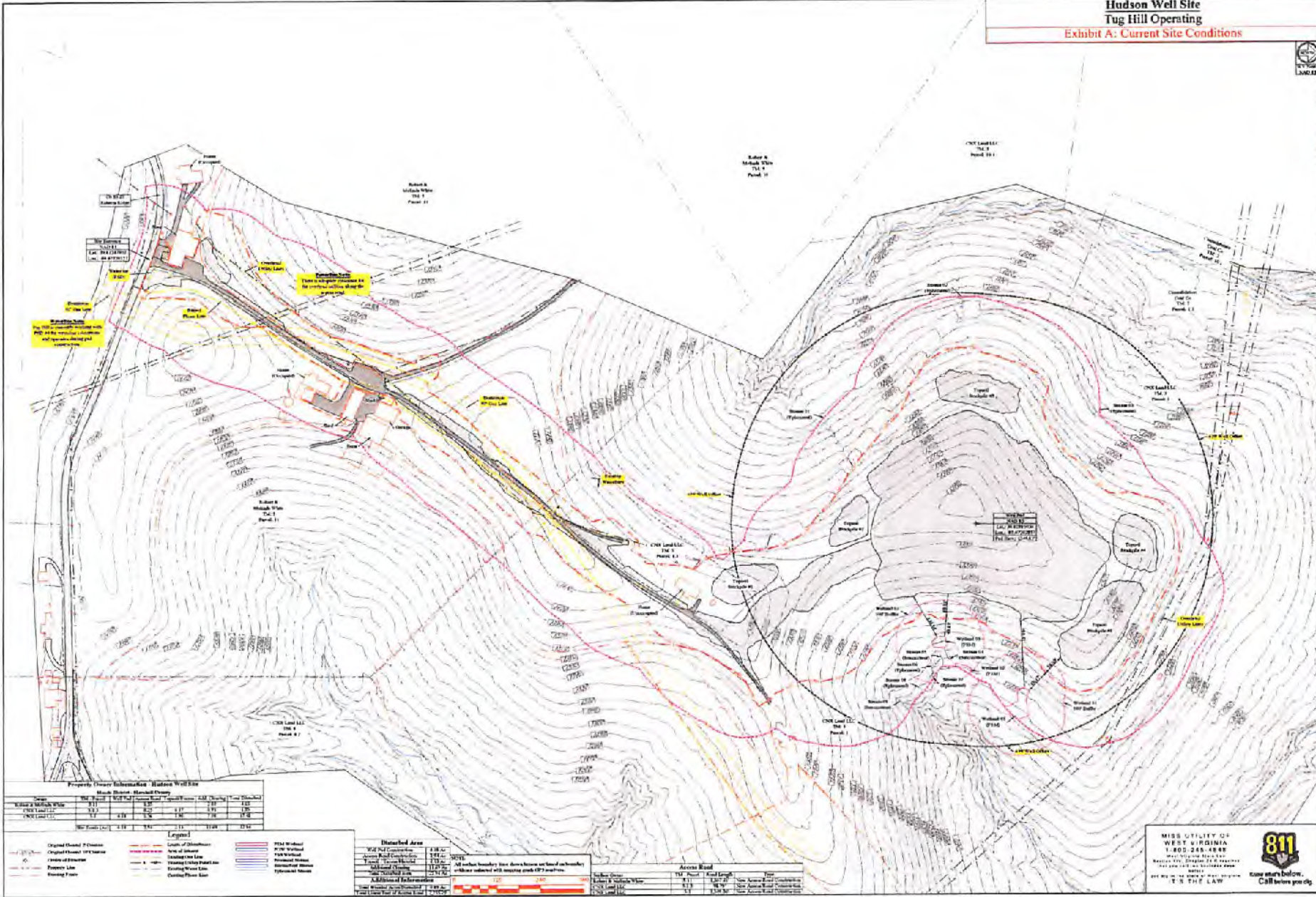
Operator's Well Number: **S-1HM**

24" Compost Filter Sock: A 24" compost filter sock shall be installed 2' upslope of the super silt fence to provide additional sedimentation protection for the wetlands. The 24" compost filter sock will be the primary sediment filter protection for the wetland with the super silt fence being the secondary filter.

Permanent Seeding / Rolled Erosion Control Blankets: Permanent seeding of all disturbed areas upslope of the wetlands shall be performed as soon as practical. Earthwork above the wetlands shall be kept to a minimum to reduce the amount of disturbed area upslope of the wetlands and shall be vegetated as soon as construction permits. If construction activities upslope of the wetlands are completed at the end of the growing season, rolled erosion control blankets shall be installed to provide additional erosion control until permanent vegetation can be established.

Well Pad Berm: The proposed well pad berm will provide well pad containment and prevent water from leaving the well pad except at designated sump outlet locations (water from the sumps shall only be released in accordance with WVDEP requirements). The sump outlets will have erosion controls to prevent erosion of the well pad slopes that may lead to sedimentation downslope. The proposed well pad sumps will be located so that they do not discharge at or near the wetland, providing additional protection to the wetlands.

Hudson Well Site
Tug Hill Operating
Exhibit A: Current Site Conditions



Property Owners Information - Hudson Well Site

Owner	Map No.	Map Date	Map Scale	Map Contour	Map Contour Interval	Map Contour Interval	Map Contour Interval	Map Contour Interval
Suburb 8 Muck Hill	811	8/18	1" = 100'	20'	10'	5'	2.5'	1.25'
ONE LOULE	811	8/18	1" = 100'	20'	10'	5'	2.5'	1.25'
ONE LOULE	811	8/18	1" = 100'	20'	10'	5'	2.5'	1.25'
ONE LOULE	811	8/18	1" = 100'	20'	10'	5'	2.5'	1.25'

Legend

Original Bound. P. Contour	Contour of Disturbance	PTM Wellhead
Original Bound. 10' Contour	Area of Disturbance	PTM Wellhead
Property Line	Existing Low Line	Proposed Wellhead
Existing Fence	Existing Utility Right-of-Way	Proposed Wellhead
	Existing Water Line	Proposed Wellhead
	Existing Power Line	Proposed Wellhead

Disturbed Area

Well Pad Construction	4,186.00
Access Road Construction	1,174.00
Drainage Construction	1,174.00
Site Preparation	1,174.00
Site Restoration	1,174.00
Total Disturbed Area	11,866.00

Area of Disturbance

Well Pad Construction	4,186.00
Access Road Construction	1,174.00
Drainage Construction	1,174.00
Site Preparation	1,174.00
Site Restoration	1,174.00
Total Area of Disturbance	11,866.00

Access Road

Location	Map No.	Map Date	Map Scale	Map Contour	Map Contour Interval
Suburb 8 Muck Hill	811	8/18	1" = 100'	20'	10'
ONE LOULE	811	8/18	1" = 100'	20'	10'
ONE LOULE	811	8/18	1" = 100'	20'	10'

MISS UTILITY OF WEST VIRGINIA
1.800.245.4444
 1000 11th Street, P.O. Box 1000
 Martinsburg, WV 26150
 MISS UTILITY OF WEST VIRGINIA
 MISS UTILITY OF WEST VIRGINIA
 MISS UTILITY OF WEST VIRGINIA
811
Call before you dig

TUG HILL OPERATING



THIS DOCUMENT PREPARED FOR TUG HILL OPERATING



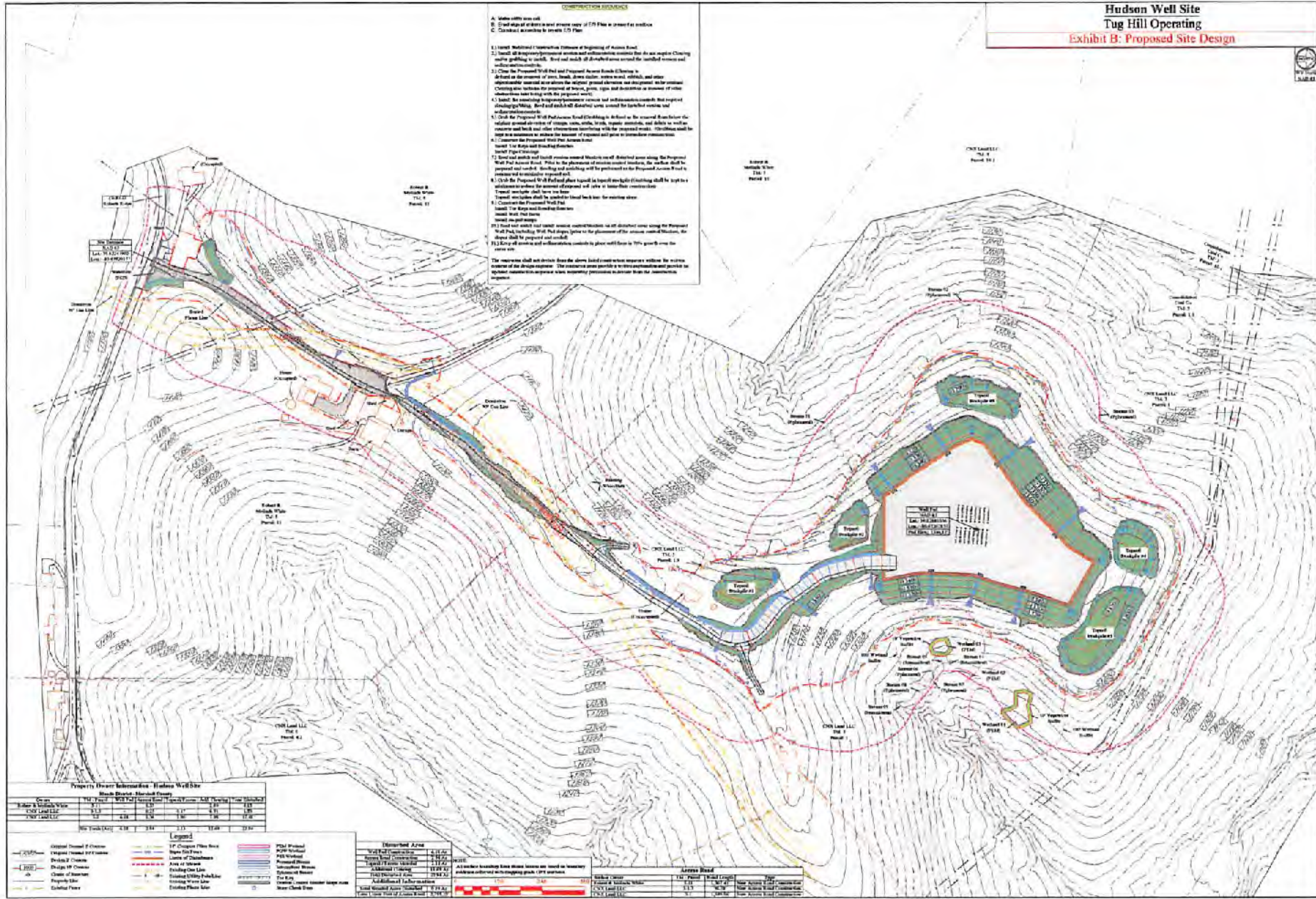
Hudson Well Site
 Meigs District
 Marshall County, WV

Scale: As Shown
 Drawn by: JES
 File No.
 Exhibit A

Hudson Well Site
Tug Hill Operating
Exhibit B: Proposed Site Design



- CONSTRUCTION SEQUENCES**
1. Make utility call.
 2. Check status of utility record drawings of 1781 Plan in present or future. Coordinate accordingly through LID Plan.
 3. Layout horizontal construction features at beginning of Access Road.
 4. Layout all temporary construction features and infrastructure including but not limited to: grading, curbs, and walls of drainage areas around the finished roadway and infrastructure.
 5. Close the Proposed Well Pad and Proposed Access Road Elevation in all areas for the removal of snow, bank, stone ditches, water control, utilities, and other adjacent features as shown on the subject ground elevation and proposed site plan. Contour lines indicate the removal of snow, grass, signs, and distribution as shown on other drawings used to verify with the proposed work.
 6. Layout the remaining temporary construction features and infrastructure including but not limited to: grading, curbs, and walls of drainage areas around the finished roadway and infrastructure.
 7. Check the Proposed Well Pad Access Road Elevation in all areas for the removal of snow, bank, stone ditches, water control, utilities, and other adjacent features as shown on the subject ground elevation and proposed site plan. Contour lines indicate the removal of snow, grass, signs, and distribution as shown on other drawings used to verify with the proposed work. (Utilities shall be kept in the easement to reduce the amount of exposed and open to precipitation construction).
 8. Construct the Proposed Well Pad Access Road.
 - a. Layout the Edge and Road Shoulder.
 - b. Layout Edge Casing.
 - c. Layout and install final surface around Machine road. Detailed paving along the Proposed Well Pad Access Road. Prior to the placement of machine control features, the surface shall be prepared and finished. Grading and finishing will be performed on the Proposed Access Road and prepared to facilitate proposed work.
 9. Check the Proposed Well Pad Elevation above the finished roadway (finishing shall be kept to a minimum to reduce the amount of exposed soil) and in base-line construction. Temporary structures shall have no base. Temporary structures shall be used to hold back soil for existing sites.
 10. Construct the Proposed Well Pad.
 - a. Layout the Edge and Road Shoulder.
 - b. Layout Well Pad Area.
 11. Layout and install final surface construction in all disturbed areas along the Proposed Well Pad including Well Pad slopes prior to the placement of the machine control features. The slopes shall be prepared and finished.
 12. A 10% of snow and ice accumulation controls in place will have to 70% guard over the entire site.
- The contractor shall maintain 50% slope above final construction measures within the entire extent of the drainage easement. The contractor shall provide a written confirmation and provide to the client immediately upon the above sequencing to ensure that the construction sequence.



Property Owner Information - Hudson Well Site

Owner	Parcel ID	Area (Acres)	Assessed Value	Assessed Land Value	Assessed Improvement Value
Robert B. Middleman	100-000-001	1.13	2,110,000	1,110,000	1,000,000
ONE LAND LLC	100-000-002	0.27	530,000	270,000	260,000
ONE LAND LLC	100-000-003	0.27	530,000	270,000	260,000

Legend

Orange Shaded Area	Proposed Well Pad	Proposed Access Road	Proposed Edge Casing
Green Shaded Area	Proposed Machine Road	Proposed Road Shoulder	Proposed Road Edge
Blue Shaded Area	Proposed Drainage Area	Proposed Ditch	Proposed Water Control
Yellow Shaded Area	Proposed Snow Storage	Proposed Snow Bank	Proposed Snow Ditch
Red Shaded Area	Proposed Utility	Proposed Utility Easement	Proposed Utility Structure
Grey Shaded Area	Proposed Elevation	Proposed Elevation	Proposed Elevation

Disturbed Area

Disturbed Area	4.10 Ac
Proposed Well Pad	1.13 Ac
Proposed Access Road	1.13 Ac
Proposed Machine Road	1.13 Ac
Proposed Road Shoulder	1.13 Ac
Proposed Road Edge	1.13 Ac
Proposed Drainage Area	1.13 Ac
Proposed Ditch	1.13 Ac
Proposed Water Control	1.13 Ac
Proposed Snow Storage	1.13 Ac
Proposed Snow Bank	1.13 Ac
Proposed Snow Ditch	1.13 Ac

Area Road

Area Road	1.13 Ac
Proposed Well Pad	1.13 Ac
Proposed Access Road	1.13 Ac
Proposed Machine Road	1.13 Ac
Proposed Road Shoulder	1.13 Ac
Proposed Road Edge	1.13 Ac
Proposed Drainage Area	1.13 Ac
Proposed Ditch	1.13 Ac
Proposed Water Control	1.13 Ac
Proposed Snow Storage	1.13 Ac
Proposed Snow Bank	1.13 Ac
Proposed Snow Ditch	1.13 Ac

TUG HILL
OUTLET

THIS DOCUMENT PREPARED FOR TUG HILL OPERATING

K/S
Surveyors
 Registered Professional Surveyors
 State of New York

Proposed Site Design
Hudson Well Site
 Mendon District
 Marshall County, WV

Date: 08/15/2018
 Scale: As Shown
 Drawn By: JG
 File No:
 Exhibit B

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

1) Well Operator: Tug Hill Operating, LLC 494510851 Marshall Meade Glen Easton 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Hudson S-4HM Well Pad Name: Hudson

3) Farm Name/Surface Owner: CNX Land, LLC Public Road Access: Roberts Ridge Road (CR 21)

4) Elevation, current ground: 1370' Elevation, proposed post-construction: 1344'

5) Well Type (a) Gas Oil Underground Storage

Other

(b) If Gas Shallow Deep

Horizontal

JM 10/29/2019

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):

Marcellus is the target formation at a depth of 6734' - 6765', thickness of 52' and an anticipated approximate pressure of 3800 psi.

8) Proposed Total Vertical Depth: 6886'

9) Formation at Total Vertical Depth: Onondaga

10) Proposed Total Measured Depth: 15,333'

11) Proposed Horizontal Leg Length: 7,711.11'

12) Approximate Fresh Water Strata Depths: 70'; 978'

13) Method to Determine Fresh Water Depths: Use shallow offset wells to determine deepest freshwater, or determine using pre-drill tests, testing while drilling or petrophysical evaluation of resistivity.

14) Approximate Saltwater Depths: 1,740'

15) Approximate Coal Seam Depths: Sewickley Coal - 886' and Pittsburgh Coal - 972'

16) Approximate Depth to Possible Void (coal mine, karst, other): None

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: Marshall County Coal Co./Marshall County Mine
Depth: 1059' TVD and 291' subsea level
Seam: Pittsburgh #8
Owner: Murray Energy / Consolidated Coal Co.

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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	30"	NEW	BW	BW	120'	120'	259ft ³ (CTS)
Fresh Water	13 3/8"	NEW	J55	54.5#	1080'	1080'	1100ft ³ (CTS)
Coal	13 3/8"	NEW	J55	54.5#	1080'	1080'	1100ft ³ (CTS)
Intermediate	9 5/8"	NEW	J55	36#	2,879'	2,879'	955ft ³ (CTS)
Production	5 1/2"	NEW	P110	20#	15,333'	15,333'	3918ft ³ (CTS)
Tubing	2 3/8"	NEW	N80	4.7#	6,951'		
Liners							

Handwritten signature and date: 6/12/19

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	36"	1.0	2,333	1,866	CLASS A	1.2
Fresh Water	13 3/8"	17.5"	.33	2,740	2,192	SEE #24	1.2
Coal	13 3/8"	17.5"	.33	2,740	2,192	SEE #24	1.2
Intermediate	9 5/8"	12 1/4"	.352	3,520	2,816	SEE #24	1.19
Production	5 1/2"	8 7/8" _ 8 3/4"	.361	12,640	10,112	SEE #24	1.17/1.19
Tubing	2 3/8"		.19	11,200	8,960		
Liners							

PACKERS

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

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WW-6B
(10/14)

4705-02251
API NO. 47-051 -
OPERATOR WELL NO. Hudson S-4HM
Well Pad Name: Hudson

ju
6/19/19

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

Drill through the Marcellus tagging less than 100' from the top of the Onondaga to get depths and log data. Plug back to proposed kick off point. Drill the horizontal section to planned and proposed TD. Run casing and cement to surface. Run Bond Log from app. 60 deg to surface. Make clean out run and stimulate.

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

Well to completed with approximately 19,275,000 lb. proppant and 298,006 barrels of water. Max rate = 80bpm; max psi = 9,000#.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.94 acres

22) Area to be disturbed for well pad only, less access road (acres): 6.18 acres

23) Describe centralizer placement for each casing string:

Will run 3 centralizers on surface casing at equal distance. Intermediate will have 1 centralizer every other joint. Production casing will have one centralizer every other joint in lateral, one centralizer every joint through curve, one centralizer every other joint to surface.

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

*See attachment

25) Proposed borehole conditioning procedures:

Will circulate a minimum of 3 hours at TD, short trip to curve, circulate bottoms up, check for flow, POOH.

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check for flow

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*Note: Attach additional sheets as needed.

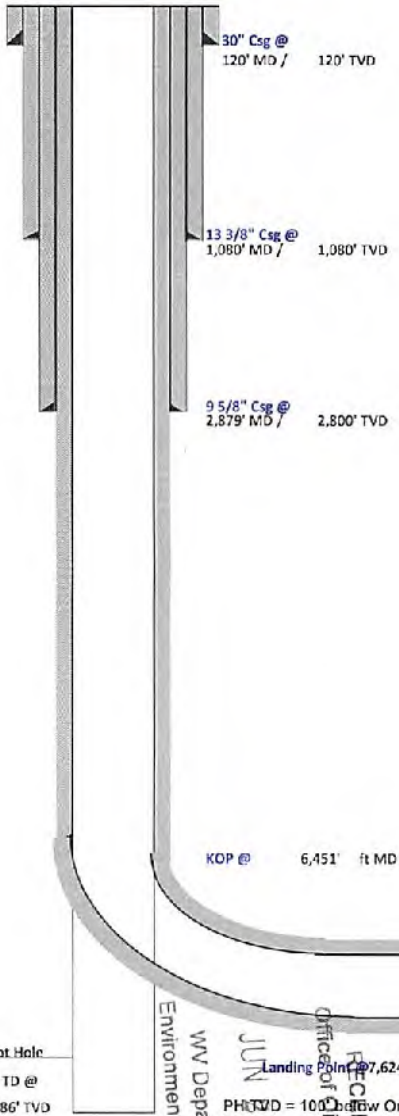


WELL NAME: Hudson S-4HM
STATE: WV **COUNTY:** Marshall
DISTRICT: #N/A
DF Elev: 1,344' **GL Elev:** 1,344'
TD: 15,333'
TH Latitude: 39.828864
TH Longitude: -80.672698
BH Latitude: 39.813579
BH Longitude: -80.663384

FORMATION TOPS	
Formation	Depth TVD
Deepest Fresh Water	978
Sewickley Coal	886
Pittsburgh Coal	972
Big Lime	2083
Weir	2514
Berea	2713
Gordon	2983
Rhinestreet	6100
Genesee/Burkett	6616
Tully	6632
Hamilton	6667
Marcellus	6734
Landing Depth	6769
Onondaga	6785
Pilot Hole Depth	6885

CASING SUMMARY							
Type	Hole Size (in)	Csg Size (in)	Depth (MD)	Depth (TVD)	Weight (lb/ft)	Grade	Top of Cement
Conductor	36	30	120'	120'	BW	BW	Surface
Surface	17.5	13 3/8	1,080'	1,080'	54.5	J55	Surface
Intermediate 1	12 1/4	9 5/8	2,879'	2,800'	36	J55	Surface
Production	8 7/8 x 8 3/4	5 1/2	15,333'	6,904'	20	CYHP110	Surface

	CEMENT SUMMARY			DRILLING DETAILS	
	Sacks	Class	Density	Fluid Type	Centralizer Notes
Conductor	338	A	15.6	Air	None
Surface	1,113	A	15.6	Air	3 Centralizers at equal distance
Intermediate 1	959	A	15	Air	1 Centralizer every other jt
Production	3,590	A	14.5	Air / SOB/M	1 every other joint in lateral; 1 per joint in curve; 1 every other jt to sfc



John
6/19/19

Pilot Hole
 PH TD @
 6,886' TVD
 Landing Point @ 7,624' MD / 6,769' TVD
 PH TD = 100' below Onondaga Top

Lateral TD @ 15,333' ft MD
 6,904' ft TVD

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Tug Hill Operating, LLC Casing and Cement Program

Hudson S-4HM

Casing

	String	Grade	Bit Size	Depth (Measured)	Cement Fill Up
Conductor	30"	BW	36"	120'	CTS
Surface	13 3/8"	J55	17 1/2"	1,080'	CTS
Intermediate	9 5/8"	J55	12 1/4"	2,879'	CTS
Production	5 1/2"	CYHP110	8 7/8 x 8 3/4"	15,333'	CTS

Cement

Conductor: Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water – Conductor Cement mixed at 15.6 ppg, Y=1.2

Surface: Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water – Surface Cement mixed at 15.6 ppg, Y=1.2

Intermediate: Premium NE-1 + 1% bwoc CaC12 + 46.5% Fresh Water – Intermediate Cement mixed at 15.6 ppg, Y=1.19

Kick Off Plug: Class H Cement + 1% CD-32 + .7% Sodium Metasilicate + .1% R-3 + .75 gal/100sk FP-13L - KOP Plug

Production: 50:50 Poz: Premium NE-1 + .1% bwoc ASA-301 + 60lb/sk ASCA-1 + .35% bwoc BA-10A + .25% bwoc MPA-170, 44 lb sack + .5% bwoc R-3 + .75 gals/100sk FP-13L – Production Cement mixed at 15.2ppg, Y = 1.19

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Well: Hudson S-04 HM (slot G)
 Site: Hudson Alt North
 Project: Marshall County, West Virginia
 Design: rev4
 Rig:

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	
2	1800.00	0.00	0.00	1690.00	0.00	0.00	0.00	0.000	0.00	KOP Begin 3"/100' build
3	2560.48	26.81	319.08	2520.50	178.89	-154.88	3.00	319.082	-227.83	Begin 26.81° tangent
4	6451.32	26.81	319.08	6929.61	1596.74	-1383.15	0.00	0.000	-2034.58	Begin 8"/100' build/turn
5	7231.31	50.00	154.88	6634.35	1442.92	-1378.73	10.00	-167.698	-1894.61	Begin 10"/100' build/turn
6	7623.74	89.00	150.07	6759.22	1124.25	-1210.40	10.00	-7.618	-1534.54	Begin 89.00° lateral
7	15333.35	89.00	150.07	6904.00	-5556.04	2635.85	0.00	0.000	6149.57	PBHL/TD 15333.35 MD/6904.00 TVD

DESIGN TARGET DETAILS

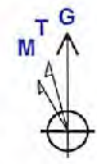
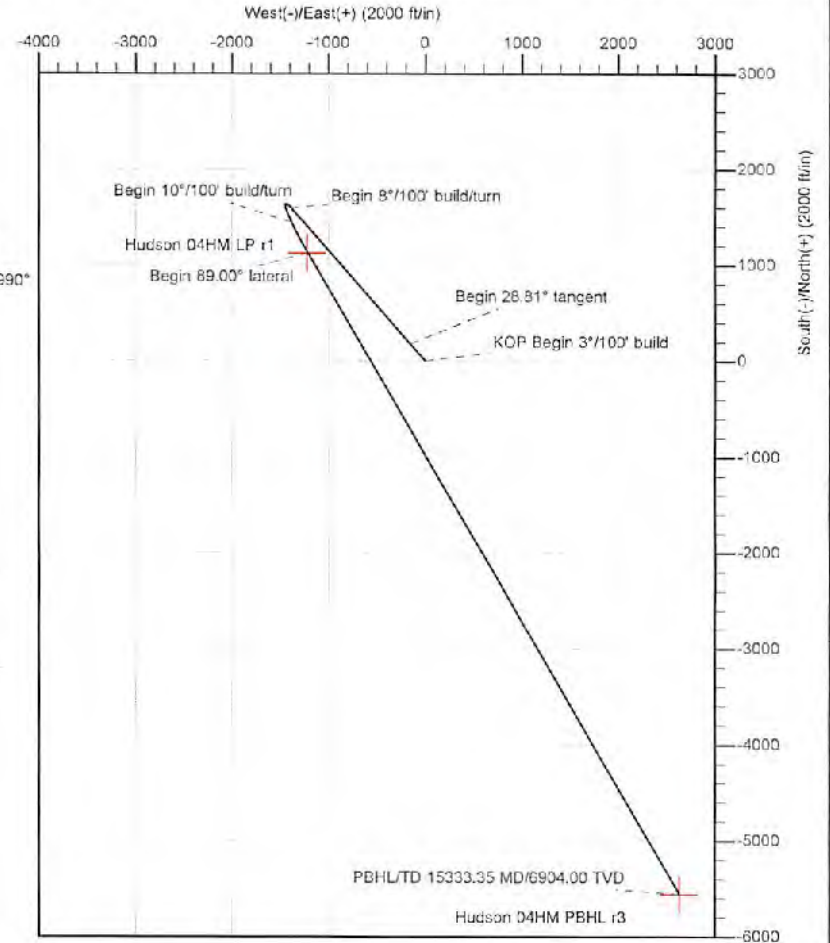
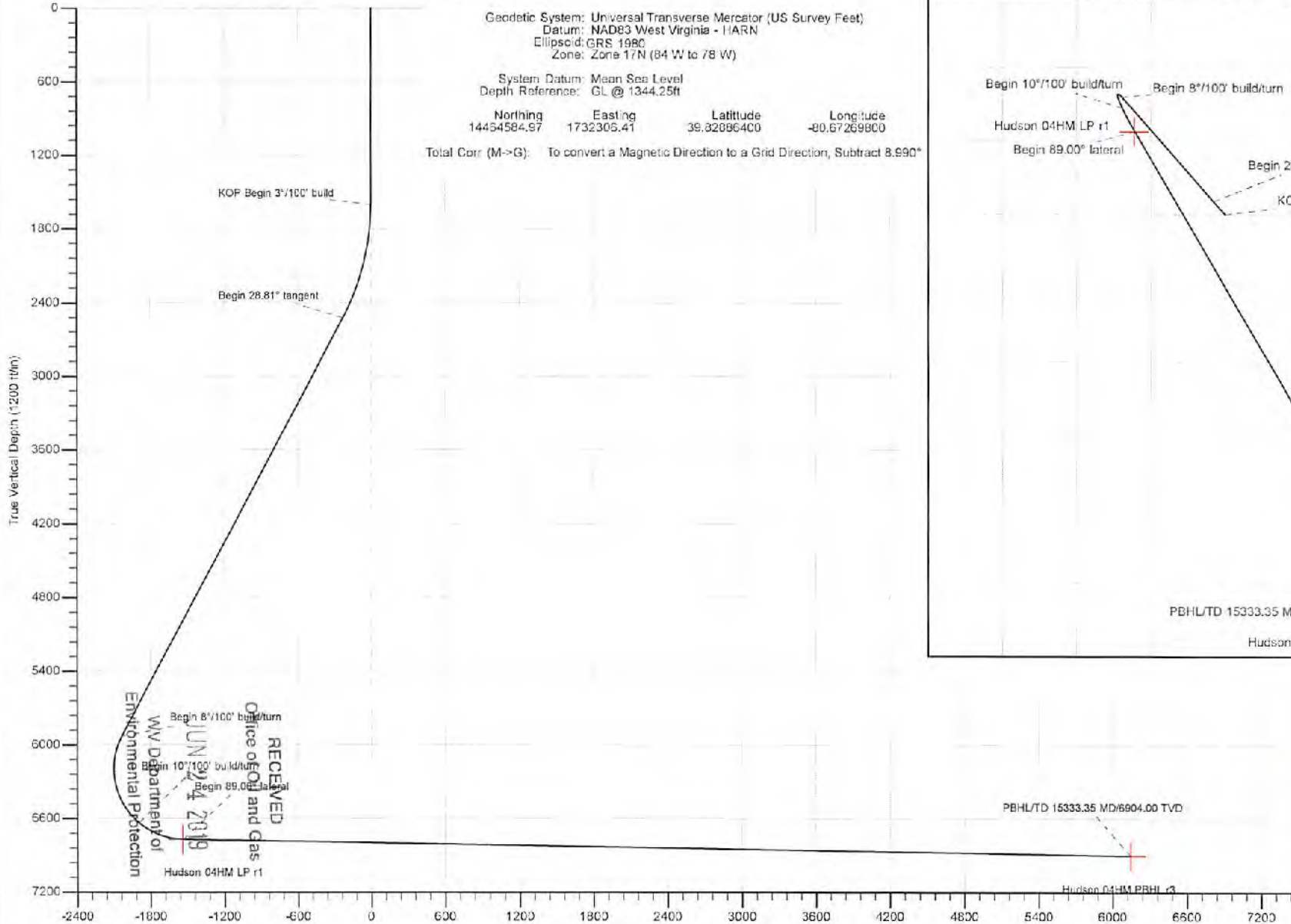
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
Hudson 04HM LP r1	6769.25	1122.50	-1219.68	39.83195882	-80.67702787
Hudson 04HM PBHL r3	6904.00	-5556.04	2635.85	39.81357900	-80.66338400

Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD83 West Virginia - HARN
 Ellipsoid: GRS 1980
 Zone: Zone 17N (84 W to 78 W)

System Datum: Mean Sea Level
 Depth Reference: GL @ 1344.25ft

Northing	Easting	Latitude	Longitude
14454584.97	1732305.41	39.82086400	-80.67269800

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.990°



Azimuths to Grid North
 True North: -0.21°
 Magnetic North: -8.99°
 Magnetic Field
 Strength: 51963.0nT
 Dip Angle: 66.82°
 Date: 6/7/2019
 Model: IGRF2015



4705402251



Planning Report - Geographic

4705 * 02251

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Hudson S-04 HM (slot G)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1344.25ft
Site:	Hudson Alt North	North Reference:	Grid
Well:	Hudson S-04 HM (slot G)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev4		

Project	Marshall County, West Virginia		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD83 West Virginia - HARN		
Map Zone:	Zone 17N (84 W to 78 W)		

Site	Hudson Alt North				
Site Position:		Northing:	14,464,552.10 usft	Latitude:	39.82877400
From:	Lat/Long	Easting:	1,732,278.45 usft	Longitude:	-80.67279800
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.210 °

Well	Hudson S-04 HM (slot G)					
Well Position	+N/-S	0.00 ft	Northing:	14,464,584.97 usft	Latitude:	39.82886400
	+E/-W	0.00 ft	Easting:	1,732,306.41 usft	Longitude:	-80.67269800
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	1,344.25 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/7/2019	-8.780	66.819	51,962.95711118

Design	rev4			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	154.62

Plan Survey Tool Program	Date 6/7/2019			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,333.35 rev4 (Original Hole)	MWD	
			MWD - Standard	

Plan Sections									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°) Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.000
2,560.48	28.81	319.08	2,520.50	178.69	-154.88	3.00	3.00	0.00	0.000
6,451.32	28.81	319.08	5,929.61	1,595.74	-1,383.15	0.00	0.00	0.00	0.000
7,231.31	50.00	154.88	6,634.35	1,442.92	-1,378.73	10.00	2.72	-21.05	0.000
7,623.75	89.00	150.07	6,769.22	1,124.25	-1,210.40	10.00	9.94	-1.23	0.000
15,333.35	89.00	150.07	8,904.00	-5,556.04	2,635.85	0.00	0.00	0.00	0.000

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Hudson 04HM PBHL



Planning Report - Geographic

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Hudson S-04 HM (slot G)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1344.25ft
Site:	Hudson Alt North	North Reference:	Grid
Well:	Hudson S-04 HM (slot G)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev4		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
100.00	0.00	0.00	100.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
200.00	0.00	0.00	200.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
300.00	0.00	0.00	300.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
400.00	0.00	0.00	400.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
500.00	0.00	0.00	500.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
600.00	0.00	0.00	600.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
700.00	0.00	0.00	700.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
800.00	0.00	0.00	800.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
900.00	0.00	0.00	900.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,464,584.97	1,732,306.41	39.82886400	-80.67269800	
KOP Begin 3°/100° build										
1,700.00	3.00	319.08	1,699.95	1.98	-1.71	14,464,586.95	1,732,304.69	39.82886945	-80.67270408	
1,800.00	6.00	319.08	1,799.63	7.91	-6.85	14,464,592.88	1,732,299.55	39.82888578	-80.67272231	
1,900.00	9.00	319.08	1,898.77	17.77	-15.40	14,464,602.74	1,732,291.00	39.82891295	-80.67275262	
2,000.00	12.00	319.08	1,997.08	31.54	-27.34	14,464,616.51	1,732,279.07	39.82895088	-80.67279495	
2,100.00	15.00	319.08	2,094.31	49.18	-42.62	14,464,634.15	1,732,263.78	39.82899948	-80.67284918	
2,200.00	18.00	319.08	2,190.18	70.63	-51.22	14,464,655.61	1,732,245.18	39.82905860	-80.67291515	
2,300.00	21.00	319.08	2,284.43	95.86	-83.09	14,464,680.83	1,732,223.32	39.82912808	-80.67299269	
2,400.00	24.00	319.08	2,376.81	124.77	-108.15	14,464,709.74	1,732,198.26	39.82920773	-80.67308158	
2,500.00	27.00	319.08	2,467.06	157.30	-136.34	14,464,742.27	1,732,170.06	39.82929735	-80.67318158	
2,560.48	28.81	319.08	2,520.50	178.69	-154.88	14,464,763.66	1,732,151.53	39.82935627	-80.67324733	
Begin 28.81° tangent										
2,600.00	28.81	319.08	2,555.13	193.08	-167.36	14,464,778.05	1,732,139.05	39.82939592	-80.67329159	
2,700.00	28.81	319.08	2,642.75	229.50	-198.92	14,464,814.47	1,732,107.48	39.82949626	-80.67340355	
2,800.00	28.81	319.08	2,730.37	265.92	-230.49	14,464,850.89	1,732,075.91	39.82959659	-80.67351552	
2,900.00	28.81	319.08	2,817.99	302.34	-262.06	14,464,887.31	1,732,044.35	39.82969693	-80.67362749	
3,000.00	28.81	319.08	2,905.60	338.76	-293.63	14,464,923.73	1,732,012.78	39.82979726	-80.67373946	
3,100.00	28.81	319.08	2,993.22	375.18	-325.20	14,464,960.15	1,731,981.21	39.82989760	-80.67385143	
3,200.00	28.81	319.08	3,080.84	411.60	-356.77	14,464,996.57	1,731,949.64	39.82999793	-80.67396340	
3,300.00	28.81	319.08	3,168.46	448.02	-388.33	14,465,032.99	1,731,918.07	39.83009827	-80.67407537	
3,400.00	28.81	319.08	3,256.08	484.44	-419.90	14,465,069.42	1,731,885.51	39.83019860	-80.67418734	
3,500.00	28.81	319.08	3,343.70	520.86	-451.47	14,465,105.84	1,731,854.94	39.83029893	-80.67429931	
3,600.00	28.81	319.08	3,431.32	557.28	-483.04	14,465,142.26	1,731,823.37	39.83039927	-80.67441128	
3,700.00	28.81	319.08	3,518.93	593.70	-514.61	14,465,178.68	1,731,791.80	39.83049960	-80.67452325	
3,800.00	28.81	319.08	3,606.55	630.12	-546.17	14,465,215.10	1,731,760.23	39.83059994	-80.67463522	
3,900.00	28.81	319.08	3,694.17	666.54	-577.74	14,465,251.52	1,731,728.67	39.83070027	-80.67474719	
4,000.00	28.81	319.08	3,781.79	702.96	-609.31	14,465,287.94	1,731,697.10	39.83080060	-80.67485916	
4,100.00	28.81	319.08	3,869.41	739.38	-640.88	14,465,324.36	1,731,665.53	39.83090094	-80.67497113	
4,200.00	28.81	319.08	3,957.03	775.81	-672.45	14,465,360.78	1,731,633.96	39.83100127	-80.67508311	
4,300.00	28.81	319.08	4,044.65	812.23	-704.01	14,465,397.20	1,731,602.39	39.83110160	-80.67519508	
4,400.00	28.81	319.08	4,132.26	848.65	-735.58	14,465,433.62	1,731,570.82	39.83120194	-80.67530705	
4,500.00	28.81	319.08	4,219.88	885.07	-767.15	14,465,470.04	1,731,539.26	39.83130227	-80.67541903	
4,600.00	28.81	319.08	4,307.50	921.49	-798.72	14,465,506.46	1,731,507.69	39.83140260	-80.67553100	
4,700.00	28.81	319.08	4,395.12	957.91	-830.29	14,465,542.88	1,731,476.12	39.83150293	-80.67564297	
4,800.00	28.81	319.08	4,482.74	994.33	-861.85	14,465,579.30	1,731,444.55	39.83160327	-80.67575495	
4,900.00	28.81	319.08	4,570.36	1,030.75	-893.42	14,465,615.72	1,731,412.98	39.83170360	-80.67586692	
5,000.00	28.81	319.08	4,657.98	1,067.17	-924.99	14,465,652.14	1,731,381.42	39.83180393	-80.67597890	

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 Environmental Protection



Planning Report - Geographic

4705 02251

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Hudson S-04 HM (slot G)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1344.25ft
Site:	Hudson Alt North	North Reference:	Grid
Well:	Hudson S-04 HM (slot G)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev4		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,100.00	28.81	319.08	4,745.59	1,103.59	-956.56	14,465,688.58	1,731,349.85	39.83190426	-80.67609087	
5,200.00	28.81	319.08	4,833.21	1,140.01	-888.13	14,465,724.98	1,731,318.28	39.83200460	-80.67620265	
5,300.00	28.81	319.08	4,920.83	1,176.43	-1,019.69	14,465,761.40	1,731,286.71	39.83210493	-80.67631483	
5,400.00	28.81	319.08	5,008.45	1,212.85	-1,051.26	14,465,797.82	1,731,255.14	39.83220526	-80.67642680	
5,500.00	28.81	319.08	5,096.07	1,249.27	-1,082.83	14,465,834.24	1,731,223.58	39.83230559	-80.67653878	
5,600.00	28.81	319.08	5,183.69	1,285.69	-1,114.40	14,465,870.66	1,731,192.01	39.83240592	-80.67665076	
5,700.00	28.81	319.08	5,271.31	1,322.11	-1,145.97	14,465,907.08	1,731,160.44	39.83250625	-80.67676273	
5,800.00	28.81	319.08	5,358.92	1,358.53	-1,177.54	14,465,943.50	1,731,128.87	39.83260659	-80.67687471	
5,900.00	28.81	319.08	5,446.54	1,394.95	-1,209.10	14,465,979.92	1,731,097.30	39.83270692	-80.67698669	
6,000.00	28.81	319.08	5,534.16	1,431.37	-1,240.67	14,466,016.34	1,731,065.74	39.83280725	-80.67709867	
6,100.00	28.81	319.08	5,621.78	1,467.79	-1,272.24	14,466,052.76	1,731,034.17	39.83290758	-80.67721065	
6,200.00	28.81	319.08	5,709.40	1,504.21	-1,303.81	14,466,089.18	1,731,002.60	39.83300791	-80.67732262	
6,300.00	28.81	319.08	5,797.02	1,540.63	-1,335.38	14,466,125.60	1,730,971.03	39.83310824	-80.67743460	
6,400.00	28.81	319.08	5,884.64	1,577.05	-1,366.94	14,466,162.02	1,730,939.46	39.83320857	-80.67754658	
6,451.32	28.81	319.08	5,929.61	1,595.74	-1,383.15	14,466,180.71	1,730,923.26	39.83326007	-80.67760406	
Begin 8°/100' build/turn										
6,500.00	24.08	316.54	5,973.18	1,611.83	-1,397.67	14,466,196.80	1,730,908.74	39.83330437	-80.67765558	
6,600.00	14.61	306.55	6,067.45	1,634.20	-1,421.89	14,466,219.17	1,730,884.52	39.83336606	-80.67774157	
6,700.00	6.80	269.85	6,165.73	1,641.71	-1,437.98	14,466,226.68	1,730,868.43	39.83338685	-80.67779879	
6,800.00	8.85	191.46	6,265.04	1,634.14	-1,445.45	14,466,219.11	1,730,860.96	39.83338612	-80.67782548	
6,900.00	17.60	168.91	6,362.35	1,611.70	-1,444.06	14,466,196.87	1,730,862.34	39.83330450	-80.67782085	
7,000.00	27.21	161.50	6,454.71	1,575.09	-1,433.88	14,466,160.06	1,730,872.53	39.83320385	-80.67778502	
7,100.00	37.02	157.78	6,539.31	1,525.41	-1,415.19	14,466,110.38	1,730,891.22	39.83306724	-80.67771910	
7,200.00	46.90	155.45	6,613.56	1,464.16	-1,386.57	14,466,049.15	1,730,917.84	39.83289882	-80.67762507	
7,231.31	50.00	154.88	6,634.35	1,442.92	-1,378.73	14,466,027.89	1,730,927.68	39.83284033	-80.67759029	
Begin 10°/100' build/turn										
7,300.00	56.81	153.79	6,675.27	1,393.25	-1,354.84	14,465,978.22	1,730,951.57	39.83270370	-80.67750583	
7,400.00	66.75	152.48	6,722.50	1,314.77	-1,315.03	14,465,899.74	1,730,991.37	39.83248777	-80.67736505	
7,500.00	76.69	151.35	6,753.83	1,231.11	-1,270.37	14,465,816.09	1,731,036.04	39.83225760	-80.67720702	
7,600.00	86.64	150.31	6,768.32	1,144.84	-1,222.19	14,465,729.81	1,731,084.22	39.83202018	-80.67703653	
7,623.74	89.00	150.07	6,769.22	1,124.25	-1,210.40	14,465,709.22	1,731,096.01	39.83196354	-80.67699479	
Begin 89.00° lateral										
7,700.00	89.00	150.07	6,770.55	1,058.17	-1,172.35	14,465,643.15	1,731,134.05	39.83178169	-80.67686012	
7,800.00	89.00	150.07	6,772.30	971.53	-1,122.47	14,465,555.50	1,731,183.94	39.83154324	-80.67668353	
7,900.00	89.00	150.07	6,774.05	884.88	-1,072.58	14,465,469.85	1,731,233.83	39.83130479	-80.67650695	
8,000.00	89.00	150.07	6,775.80	798.23	-1,022.69	14,465,383.20	1,731,283.72	39.83106633	-80.67633036	
8,100.00	89.00	150.07	6,777.55	711.58	-972.80	14,465,296.55	1,731,333.61	39.83082788	-80.67615377	
8,200.00	89.00	150.07	6,779.29	624.93	-922.91	14,465,209.90	1,731,383.50	39.83058943	-80.67597719	
8,300.00	89.00	150.07	6,781.04	538.28	-873.02	14,465,123.25	1,731,433.39	39.83035097	-80.67580061	
8,400.00	89.00	150.07	6,782.79	451.63	-823.13	14,465,036.60	1,731,483.28	39.83011252	-80.67562403	
8,500.00	89.00	150.07	6,784.54	364.98	-773.24	14,464,949.95	1,731,533.16	39.82987407	-80.67544745	
8,600.00	89.00	150.07	6,786.29	278.33	-723.35	14,464,863.31	1,731,583.05	39.82963551	-80.67527087	
8,700.00	89.00	150.07	6,788.04	191.69	-673.46	14,464,776.66	1,731,632.94	39.82939716	-80.67509429	
8,800.00	89.00	150.07	6,789.78	105.04	-623.58	14,464,690.01	1,731,682.83	39.82915870	-80.67491771	
8,900.00	89.00	150.07	6,791.53	18.39	-573.69	14,464,603.36	1,731,732.72	39.82892025	-80.67474114	
9,000.00	89.00	150.07	6,793.28	-68.26	-523.80	14,464,516.71	1,731,782.61	39.82868179	-80.67456457	
9,100.00	89.00	150.07	6,795.03	-154.91	-473.91	14,464,430.06	1,731,832.50	39.82844333	-80.67438799	
9,200.00	89.00	150.07	6,796.78	-241.56	-424.02	14,464,343.42	1,731,882.39	39.82820488	-80.67421142	
9,300.00	89.00	150.07	6,798.52	-328.21	-374.13	14,464,256.77	1,731,932.28	39.82796642	-80.67403485	
9,400.00	89.00	150.07	6,800.27	-414.86	-324.24	14,464,170.12	1,731,982.16	39.82772796	-80.67385828	
9,500.00	89.00	150.07	6,802.02	-501.51	-274.35	14,464,083.47	1,732,032.05	39.82748951	-80.67368171	
9,600.00	89.00	150.07	6,803.77	-588.15	-224.46	14,463,996.82	1,732,081.94	39.82725105	-80.67350515	
9,700.00	89.00	150.07	6,805.52	-674.80	-174.57	14,463,910.17	1,732,131.83	39.82701259	-80.67332858	
9,800.00	89.00	150.07	6,807.27	-761.45	-124.69	14,463,823.52	1,732,181.72	39.82677414	-80.67315202	



Planning Report - Geographic

4705 02251

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Hudson S-04 HM (slot G)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
Project:	Marshall County, West Virginia	MD Reference:	GL @ 1344.25ft
Site:	Hudson Alt North	North Reference:	Gnd
Well:	Hudson S-04 HM (slot G)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev4		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,900.00	89.00	150.07	6,809.01	-848.10	-74.80	14,463,736.87	1,732,231.61	39.82653568	-80.67297546	
10,000.00	89.00	150.07	6,810.76	-934.75	-24.91	14,463,650.23	1,732,281.50	39.82629722	-80.67279889	
10,100.00	89.00	150.07	6,812.51	-1,021.40	24.98	14,463,563.58	1,732,331.39	39.82605878	-80.67262233	
10,200.00	89.00	150.07	6,814.26	-1,108.05	74.87	14,463,476.93	1,732,381.28	39.82582030	-80.67244577	
10,300.00	89.00	150.07	6,815.01	-1,194.70	124.76	14,463,390.26	1,732,431.17	39.82558164	-80.67226922	
10,400.00	89.00	150.07	6,817.76	-1,281.35	174.65	14,463,303.63	1,732,481.05	39.82534338	-80.67209266	
10,500.00	89.00	150.07	6,819.50	-1,367.99	224.54	14,463,216.98	1,732,530.94	39.82510492	-80.67191610	
10,600.00	89.00	150.07	6,821.25	-1,454.64	274.43	14,463,130.33	1,732,580.83	39.82486646	-80.67173955	
10,700.00	89.00	150.07	6,823.00	-1,541.29	324.32	14,463,043.68	1,732,630.72	39.82462800	-80.67156300	
10,800.00	89.00	150.07	6,824.75	-1,627.94	374.20	14,462,957.04	1,732,680.61	39.82438954	-80.67138644	
10,900.00	89.00	150.07	6,826.50	-1,714.59	424.09	14,462,870.39	1,732,730.50	39.82415108	-80.67120989	
11,000.00	89.00	150.07	6,828.24	-1,801.24	473.98	14,462,783.74	1,732,780.39	39.82391262	-80.67103334	
11,100.00	89.00	150.07	6,829.99	-1,887.89	523.87	14,462,697.09	1,732,830.28	39.82367416	-80.67085679	
11,200.00	89.00	150.07	6,831.74	-1,974.54	573.76	14,462,610.44	1,732,880.17	39.82343570	-80.67068025	
11,300.00	89.00	150.07	6,833.49	-2,061.19	623.65	14,462,523.79	1,732,930.05	39.82319723	-80.67050370	
11,400.00	89.00	150.07	6,835.24	-2,147.83	673.54	14,462,437.14	1,732,979.94	39.82295877	-80.67032716	
11,500.00	89.00	150.07	6,836.99	-2,234.48	723.43	14,462,350.49	1,733,029.83	39.82272031	-80.67015061	
11,600.00	89.00	150.07	6,838.73	-2,321.13	773.32	14,462,263.85	1,733,079.72	39.82248185	-80.66997407	
11,700.00	89.00	150.07	6,840.48	-2,407.78	823.21	14,462,177.20	1,733,129.61	39.82224338	-80.66979753	
11,800.00	89.00	150.07	6,842.23	-2,494.43	873.09	14,462,090.55	1,733,179.50	39.82200492	-80.66962099	
11,900.00	89.00	150.07	6,843.98	-2,581.08	922.98	14,462,003.90	1,733,229.39	39.82176646	-80.66944445	
12,000.00	89.00	150.07	6,845.73	-2,667.73	972.87	14,461,917.25	1,733,279.28	39.82152799	-80.66926791	
12,100.00	89.00	150.07	6,847.47	-2,754.38	1,022.76	14,461,830.60	1,733,329.17	39.82128953	-80.66909138	
12,200.00	89.00	150.07	6,849.22	-2,841.03	1,072.65	14,461,743.95	1,733,379.05	39.82105107	-80.66891484	
12,300.00	89.00	150.07	6,850.97	-2,927.67	1,122.54	14,461,657.30	1,733,428.94	39.82081260	-80.66873831	
12,400.00	89.00	150.07	6,852.72	-3,014.32	1,172.43	14,461,570.66	1,733,478.83	39.82057414	-80.66856178	
12,500.00	89.00	150.07	6,854.47	-3,100.97	1,222.32	14,461,484.01	1,733,528.72	39.82033567	-80.66838525	
12,600.00	89.00	150.07	6,856.22	-3,187.62	1,272.21	14,461,397.36	1,733,578.61	39.82009720	-80.66820872	
12,700.00	89.00	150.07	6,857.96	-3,274.27	1,322.10	14,461,310.71	1,733,628.50	39.81985874	-80.66803219	
12,800.00	89.00	150.07	6,859.71	-3,360.92	1,371.99	14,461,224.06	1,733,678.39	39.81962027	-80.66785566	
12,900.00	89.00	150.07	6,861.46	-3,447.57	1,421.87	14,461,137.41	1,733,728.28	39.81938181	-80.66767913	
13,000.00	89.00	150.07	6,863.21	-3,534.22	1,471.76	14,461,050.76	1,733,778.17	39.81914334	-80.66750261	
13,100.00	89.00	150.07	6,864.96	-3,620.87	1,521.65	14,460,964.11	1,733,828.05	39.81890487	-80.66732608	
13,200.00	89.00	150.07	6,866.70	-3,707.51	1,571.54	14,460,877.47	1,733,877.94	39.81866641	-80.66714956	
13,300.00	89.00	150.07	6,868.45	-3,794.16	1,621.43	14,460,790.82	1,733,927.83	39.81842794	-80.66697304	
13,400.00	89.00	150.07	6,870.20	-3,880.81	1,671.32	14,460,704.17	1,733,977.72	39.81818947	-80.66679652	
13,500.00	89.00	150.07	6,871.95	-3,967.46	1,721.21	14,460,617.52	1,734,027.61	39.81795100	-80.66662000	
13,600.00	89.00	150.07	6,873.70	-4,054.11	1,771.10	14,460,530.87	1,734,077.50	39.81771253	-80.66644348	
13,700.00	89.00	150.07	6,875.45	-4,140.76	1,820.99	14,460,444.22	1,734,127.39	39.81747407	-80.66626696	
13,800.00	89.00	150.07	6,877.19	-4,227.41	1,870.88	14,460,357.57	1,734,177.28	39.81723560	-80.66609045	
13,900.00	89.00	150.07	6,878.94	-4,314.06	1,920.76	14,460,270.93	1,734,227.17	39.81699713	-80.66591393	
14,000.00	89.00	150.07	6,880.69	-4,400.71	1,970.65	14,460,184.28	1,734,277.05	39.81675866	-80.66573742	
14,100.00	89.00	150.07	6,882.44	-4,487.35	2,020.54	14,460,097.63	1,734,326.94	39.81652019	-80.66556091	
14,200.00	89.00	150.07	6,884.19	-4,574.00	2,070.43	14,460,010.98	1,734,376.83	39.81628172	-80.66538440	
14,300.00	89.00	150.07	6,885.94	-4,660.65	2,120.32	14,459,924.33	1,734,426.72	39.81604325	-80.66520789	
14,400.00	89.00	150.07	6,887.68	-4,747.30	2,170.21	14,459,837.68	1,734,476.61	39.81580478	-80.66503138	
14,500.00	89.00	150.07	6,889.43	-4,833.95	2,220.10	14,459,751.03	1,734,526.50	39.81556631	-80.66485487	
14,600.00	89.00	150.07	6,891.18	-4,920.60	2,269.99	14,459,664.38	1,734,576.39	39.81532784	-80.66467837	
14,700.00	89.00	150.07	6,892.93	-5,007.25	2,319.88	14,459,577.74	1,734,626.28	39.81508937	-80.66450186	
14,800.00	89.00	150.07	6,894.68	-5,093.90	2,369.77	14,459,491.09	1,734,676.17	39.81485090	-80.66432536	
14,900.00	89.00	150.07	6,896.42	-5,180.55	2,419.65	14,459,404.44	1,734,726.05	39.81461242	-80.66414886	
15,000.00	89.00	150.07	6,898.17	-5,267.19	2,469.54	14,459,317.79	1,734,775.94	39.81437395	-80.66397236	
15,100.00	89.00	150.07	6,899.92	-5,353.84	2,519.43	14,459,231.14	1,734,825.83	39.81413548	-80.66379586	
15,200.00	89.00	150.07	6,901.67	-5,440.49	2,569.32	14,459,144.49	1,734,875.72	39.81389701	-80.66361936	
15,300.00	89.00	150.07	6,903.42	-5,527.14	2,619.21	14,459,057.84	1,734,925.61	39.81365853	-80.66344286	

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Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1344.25ft
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Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,333.35	89.00	150.07	6,904.00	-5,556.04	2,635.85	14,459,028.95	1,734,942.25	39.81357900	-80.66338400
PBHL/TD 15333.35 MD/6904.00 TVD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Hudson 04HM LP r1	0.00	0.00	6,769.25	1,122.50	-1,219.68	14,465,707.47	1,731,086.73	39.83195882	-80.67702787
- plan misses target center by 8.92ft at 7620.65ft MD (6769.16 TVD, 1126.93 N, -1211.94 E)									
- Point									
Hudson 04HM PBHL r3	0.00	0.01	6,904.00	-5,556.04	2,635.85	14,459,028.95	1,734,942.25	39.81357900	-80.66338400
- plan hits target center									
- Point									

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,600.00	1,600.00	0.00	0.00	KOP Begin 3°/100' build	
2,560.48	2,520.50	178.69	-154.68	Begin 28.81° tangent	
6,451.32	5,929.61	1,595.74	-1,383.15	Begin 8°/100' build/turn	
7,231.31	6,634.35	1,442.92	-1,378.73	Begin 10°/100' build/turn	
7,623.74	6,769.22	1,124.25	-1,210.40	Begin 89.00° lateral	
15,333.35	6,904.00	-5,556.04	2,635.85	PBHL/TD 15333.35 MD/6904.00 TVD	

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Area of Review

Sources of information to Support 35CSR8 - 5.11: 9.3 et seq.

Description of process to identify potential pathways for well communication during hydraulic fracturing activities.

Data Sources Reviewed:

1. IHS Well Data service: Public nationwide data service that pulls directly from State agency Oil and Gas databases
2. Farm Maps
3. Topo Maps: Recent and older (contact WVGES)
4. Check with DPS

Contacted Devin Ducoeur 724-705-0444, dducoeur@dpslandservices.com DPS GIS (06/14/2019) to have him make maps of the wellbores with his information. DPS utilizes WVGES maps for their mapping seems it as the best publicly available. See attached map he provided.

Request maps for:

1. Wellbore with IHS All Wells Layer
2. Map with Farm lines overlain and any well spots identified on Farm Maps
3. More recent (1970s vintage) topos and older topos

Discussion with Phil Dinterman WVGES GIS Department (7/15/2016)

- WVGES has plotted every well spot they have access to and are aware of with that contains a coordinate. 30000, 70000, and 90000 series wells are available via the WVGES online map. Some locations aren't great due to vintage and manipulation of maps through time
- 30000 series – any well drilled prior to 1929 – APIs were not assigned to original wells
- 70000 series – Well spots pulled from old Farm line maps that the WVGES has access to
- 90000 series – Any sources that the WVGES has access that shows a well spot but has no additional supporting information. DEP does not have 90000 series on their maps.
- There can be duplication between wells in the 3 series
- Phil indicated that other Operators are providing a screenshot of the WVGES map with their planned well and using that for permits

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Permit well - Hudson S-4HM

Wells within 500' Buffer

Note: Well spots depicted on Area of Review map (page 3) are derived from State held coordinates. The spots may differ from those depicted on the Well Plat because the Plat locations represent actual field surveyed locations. Please refer to the Plat for surveyed well spots

API Number	Operator Name	Total Depth	Perforated fms	Producing zones not perforated	Is this well "known or reasonably expected to penetrate a depth that could be within the range of Fracture propagation"? 1000' Is max limit I would assign to wells that might be within in range of fracture propagation	Comments
47051140030	Unknown	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Marcellus well.	State records are incomplete
4705170639	Unknown	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Marcellus well.	State records are incomplete

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Well: County = 51 Permit = 80550

Location information: Value Error

WELL_ID COUNTY PERMIT NO. DISTRICT STATE OF OIL AND GAS DIVISION DATE OF PERMITS

There is no Bottom Hole Location data for this well.

There is no Cement/Completion data for this well.

There is no Cement/Completion data for this well.

There is no Flow data for this well.

There is no Production O&G data for this well. ** some operators may have reported NGL under OI

There is no Production NGL data for this well. ** some operators may have reported NGL under OI

There is no Production Water data for this well.

Completion information:

WELL ID	DATE	PERMITS	NO. OF STAGES	DEPTH (TOP)	DEPTH (BOTTOM)	PERMITS	PERMITS	PERMITS	PERMITS	PERMITS	PERMITS
W201010	01/10/2010	1010	1	1010	1010	1010	1010	1010	1010	1010	1010
W201011	01/10/2010	1011	1	1011	1011	1011	1011	1011	1011	1011	1011
W201012	01/10/2010	1012	1	1012	1012	1012	1012	1012	1012	1012	1012
W201013	01/10/2010	1013	1	1013	1013	1013	1013	1013	1013	1013	1013
W201014	01/10/2010	1014	1	1014	1014	1014	1014	1014	1014	1014	1014
W201015	01/10/2010	1015	1	1015	1015	1015	1015	1015	1015	1015	1015
W201016	01/10/2010	1016	1	1016	1016	1016	1016	1016	1016	1016	1016
W201017	01/10/2010	1017	1	1017	1017	1017	1017	1017	1017	1017	1017
W201018	01/10/2010	1018	1	1018	1018	1018	1018	1018	1018	1018	1018
W201019	01/10/2010	1019	1	1019	1019	1019	1019	1019	1019	1019	1019
W201020	01/10/2010	1020	1	1020	1020	1020	1020	1020	1020	1020	1020
W201021	01/10/2010	1021	1	1021	1021	1021	1021	1021	1021	1021	1021
W201022	01/10/2010	1022	1	1022	1022	1022	1022	1022	1022	1022	1022
W201023	01/10/2010	1023	1	1023	1023	1023	1023	1023	1023	1023	1023
W201024	01/10/2010	1024	1	1024	1024	1024	1024	1024	1024	1024	1024
W201025	01/10/2010	1025	1	1025	1025	1025	1025	1025	1025	1025	1025
W201026	01/10/2010	1026	1	1026	1026	1026	1026	1026	1026	1026	1026
W201027	01/10/2010	1027	1	1027	1027	1027	1027	1027	1027	1027	1027
W201028	01/10/2010	1028	1	1028	1028	1028	1028	1028	1028	1028	1028
W201029	01/10/2010	1029	1	1029	1029	1029	1029	1029	1029	1029	1029
W201030	01/10/2010	1030	1	1030	1030	1030	1030	1030	1030	1030	1030

There is no Wireline (E-Log) data for this well.

There is no Plugging data for this well.

There is no Seismic data for this well.

Well: County = 51 Permit = 70629

Location information: Value Error

WELL_ID COUNTY PERMIT NO. DISTRICT STATE OF OIL AND GAS DIVISION DATE OF PERMITS

There is no Bottom Hole Location data for this well.

There is no Cement/Completion data for this well.

There is no Cement/Completion data for this well.

There is no Flow data for this well.

There is no Production O&G data for this well. ** some operators may have reported NGL under OI

There is no Production NGL data for this well. ** some operators may have reported NGL under OI

There is no Production Water data for this well.

There is no Wireline (E-Log) data for this well.

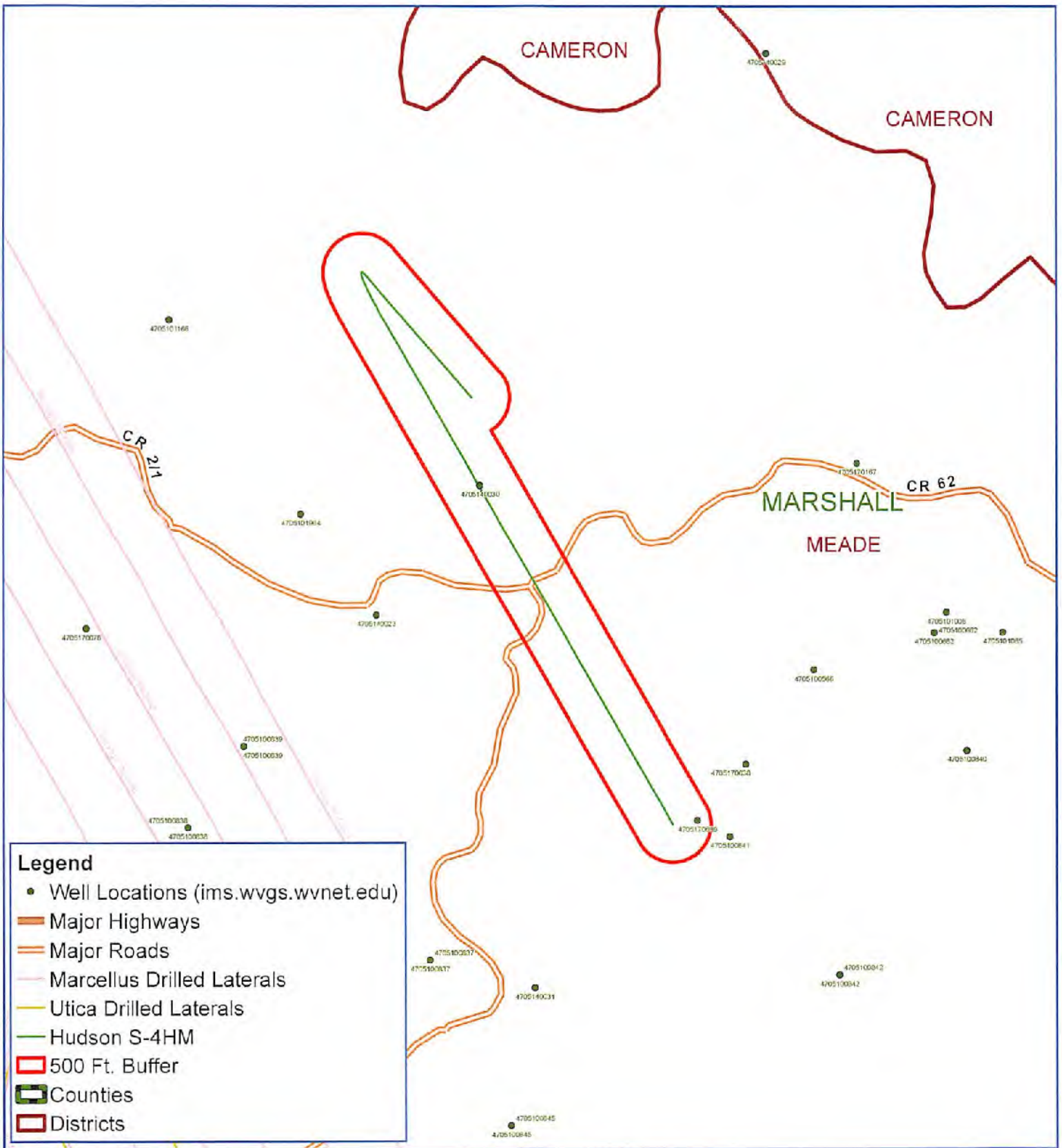
There is no Plugging data for this well.

There is no Seismic data for this well.

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Hudson S - 4HM Meade District Marshall County, WV



Notes:

All locations are approximate and are for visualization purposes only.

Map Created: June 14, 2019
Map Current As Of: June 14, 2019

Map Prepared by:



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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Tug Hill Operating, LLC OP Code 494510851

Watershed (HUC 10) Grave Creek Quadrangle Glen Easton 7.5'

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: AST Tanks with proper containment will be used for staging fresh water for frac and flow back water

Will a synthetic liner be used in the pit? Yes No If so, what ml.? AST Tanks will be used with proper contain

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number UIC 2459, UIC 965, UIC 359, UIC 2D0732540, UIC 2D0732523)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: Yes - For Vertical and Horizontal Drilling

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air for vertical / Oil for Horizontal

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

Additives to be used in drilling medium? Barite for weight

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. All drill cuttings to be disposed of in a Landfill

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

-Landfill or offsite name/permit number? Webel County Sanitary Landfill (SWF-1021 / WVU109185) and Westmoreland Sanitary Landfill, LLC (SAN1405 / PA DEP ECR1386426)

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 James Pancake
Company Official (Typed Name) James Pancake
Company Official Title Vice President - Geoscience

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JUN 24 2019
WV Department of
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Subscribed and sworn before me this 19 day of JUNE, 20 19

Maureen A Stead
Notary Public

My commission expires 1/28/23

Commonwealth of Pennsylvania - Notary Seal
MAUREEN A STEAD - Notary Public
Washington County
My Commission Expires Jan 28, 2023
Commission Number 1259926

Tug Hill Operating, LLC

Proposed Revegetation Treatment: Acres Disturbed 22.94 Prevegetation pH 6.0

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2.5 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Ryegrass	40	Orchard Grass	12
Spring Oats	96	Ladino	3
		White Clover	2

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *John Wilsham*

Comments: _____

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WV Department of
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Title: Oil and Gas Inspector

Date: 6/19/19

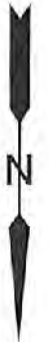
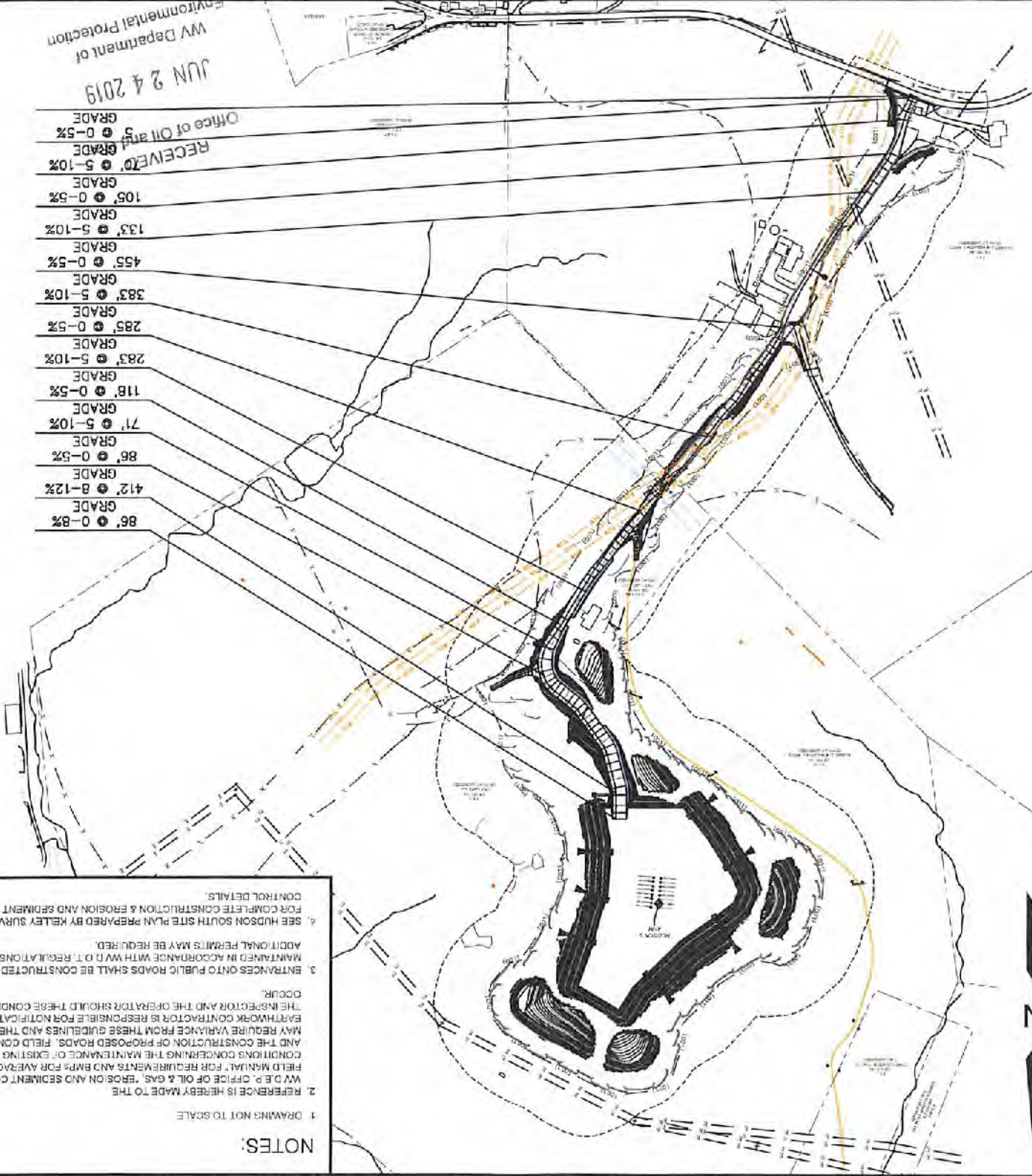
Field Reviewed? Yes No

TOPO SECTION:	GLEN EASTON 7.5'
OPERATOR:	PREPARED FOR: TUG HILL OPERATING, LLC 380 SOUTH POINTE BLVD CANONSBURG, PA 15317
SCALE:	NONE
DATE:	06/14/19
JOB NO.:	8911
DRAWN BY:	K.G.M.
COUNTY:	MARSHALL
DISTRICT:	MEADE
USER:	knovyer



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- 86' @ 0-8% GRADE
- 412' @ 8-12% GRADE
- 86' @ 0-5% GRADE
- 86' @ 0-5% GRADE
- 71' @ 5-10% GRADE
- 118' @ 0-5% GRADE
- 283' @ 5-10% GRADE
- 285' @ 0-5% GRADE
- 383' @ 5-10% GRADE
- 455' @ 0-5% GRADE
- 133' @ 5-10% GRADE
- 105' @ 0-5% GRADE



NOTES:

- DRAWING NOT TO SCALE
- REFERENCE IS HEREBY MADE TO THE W.D.E.P. OFFICE OF OIL & GAS, EROSION AND SEDIMENT CONTROL FIELD MANUAL FOR REQUIREMENTS AND BMPs FOR AVERAGE FIELD CONDITIONS CONCERNING THE MAINTENANCE OF EXISTING ROADS AND THE CONSTRUCTION OF PROPOSED ROADS. FIELD CONDITIONS MAY REQUIRE VARIANCE FROM THESE GUIDELINES AND THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION TO THE INSPECTOR AND THE OPERATOR SHOULD THESE CONDITIONS OCCUR.
- ENTRANCES ONTO PUBLIC ROADS SHALL BE CONSTRUCTED OR MAINTAINED IN ACCORDANCE WITH W.D.E.P. REGULATIONS. ADDITIONAL PERMITS MAY BE REQUIRED.
- SEE HUDSON SOUTH SITE PLAN PREPARED BY KELLEY SURVEYING, FOR COMPLETE CONSTRUCTION & EROSION AND SEDIMENT CONTROL DETAILS.

PROPOSED
HUDSON S - 4HM



Well Site Safety Plan

Tug Hill Operating, LLC

ju
6/19/19

Well Name:Hudson S-4HM

Pad Location: Hudson ad

Marshall County, West Virginia

UTM meters , N 83, Zone 17:

Northing: 4,408,814.32

Easting: 528,008.05

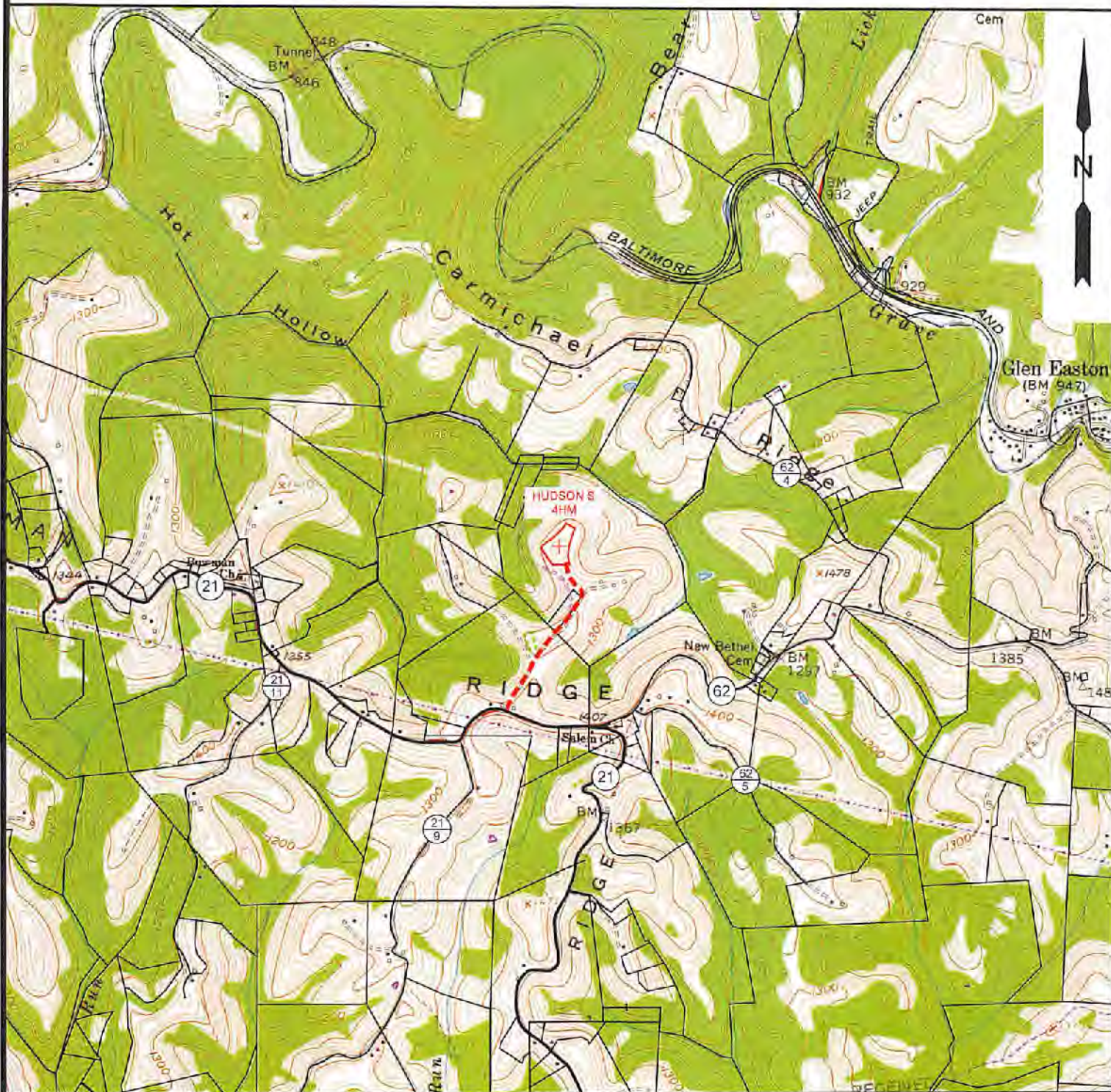
June 2019

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JUN 24 2019

WV Department of
Environmental Protection

PROPOSED HUDSON S - 4HM



NOTE: CLOSEST WATER PURVEYOR
CITY OF CAMERON - FRANK WALKER RESERVOIR
CAMDEN, WV

LAT: 39.829865
LON: -80.573724
LOCATED: N 89°55'28" E AT 27,779.45' FROM THE CENTER OF HUDSON S WELL PAD LOCATION.

Office of Oil and Gas



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www.slsww.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5'		PREPARED FOR:	
COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
MARSHALL	MEADE	380 SOUTHPOINTE BLVD	
DRAWN BY		DATE	SCALE
K.G.M.		06/14/2019	1" = 2000'

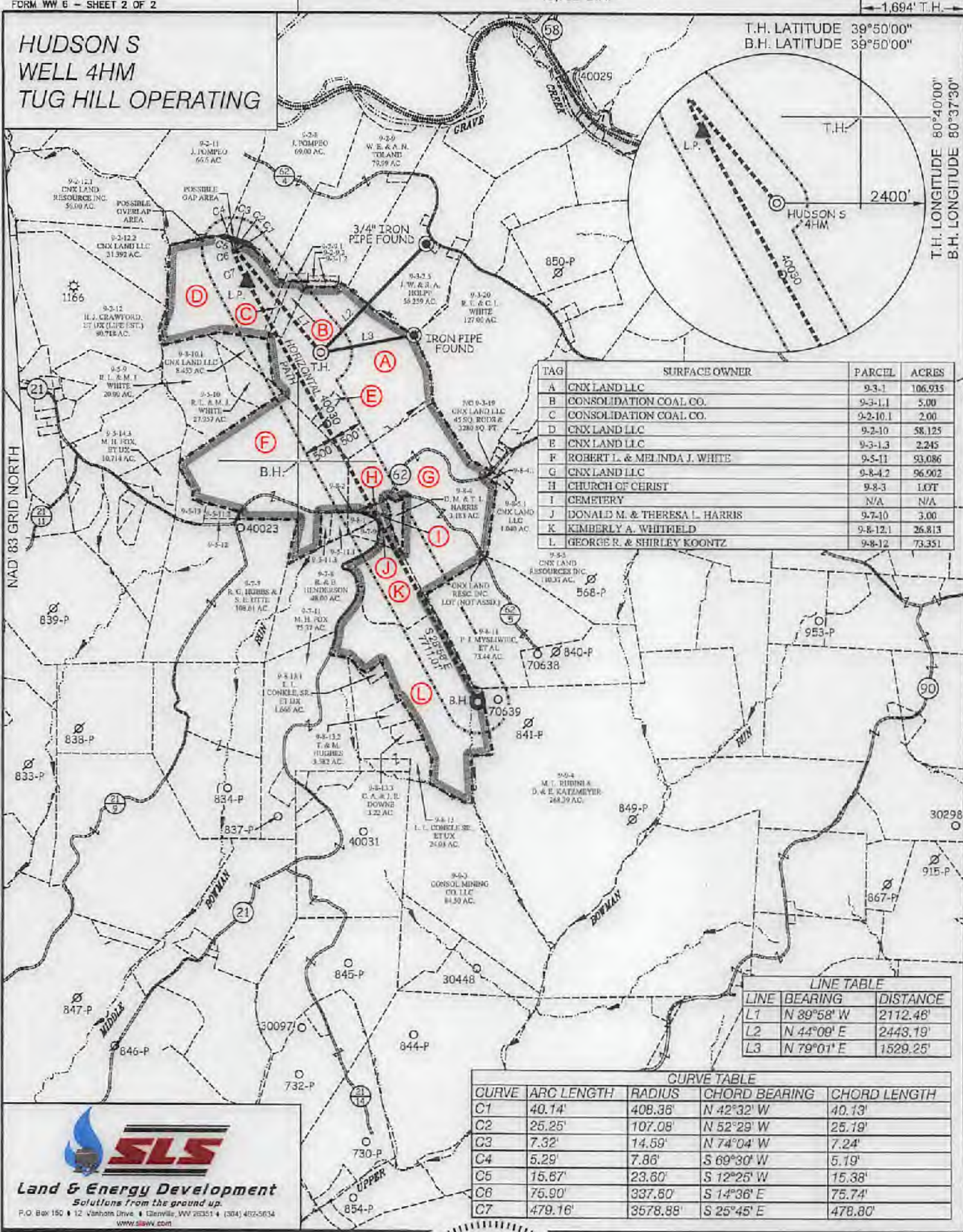


**HUDSON S
WELL 4HM
TUG HILL OPERATING**

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°50'00"

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°37'30"

NAD 83 GRID NORTH



TAG	SURFACE OWNER	PARCEL	ACRES
A	CNX LAND LLC	9-3-1	106.935
B	CONSOLIDATION COAL CO.	9-3-1.1	5.00
C	CONSOLIDATION COAL CO.	9-2-10.1	2.00
D	CNX LAND LLC	9-2-10	58.125
E	CNX LAND LLC	9-3-1.3	2.245
F	ROBERT L. & MELINDA J. WHITE	9-5-11	93.086
G	CNX LAND LLC	9-8-4.2	96.502
H	CHURCH OF CHRIST	9-8-3	1.07
I	CEMETERY	N/A	N/A
J	DONALD M. & THERESA L. HARRIS	9-7-10	3.00
K	KIMBERLY A. WHITFIELD	9-8-12.1	26.813
L	GEORGE R. & SHIRLEY KOONTZ	9-8-12	73.351

LINE	BEARING	DISTANCE
L1	N 89°58' W	2112.48'
L2	N 44°00' E	2448.19'
L3	N 79°01' E	1529.25'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	40.14'	408.36'	N 42°32' W	40.13'
C2	25.25'	107.08'	N 52°29' W	25.19'
C3	7.32'	14.59'	N 74°04' W	7.24'
C4	5.29'	7.86'	S 69°30' W	5.19'
C5	15.67'	23.60'	S 12°25' W	15.38'
C6	75.90'	337.80'	S 14°36' E	75.74'
C7	479.16'	3578.88'	S 25°45' E	478.80'

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www.slsww.com



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

P.S. 849 *C. Victor Moyers*

LEGEND

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- TAX MAP-PARCEL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE WW-8A1)

COUNTY NAME
PERMIT

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD83 S.P.C.(FT) N. 488,184.18 E. 1,639,161.49
 NAD83 GEO. LAT-(N) 39.826864 LONG-(W) 80.672698
 NAD83 UTM (M) N. 4,409,814.32 E. 528,008.05
LANDING POINT
 NAD83 S.P.C.(FT) N. 487,308.0 E. 1,637,969.6
 NAD83 GEO. LAT-(N) 39.831964 LONG-(W) 80.676995
 NAD83 UTM (M) N. 4,409,157.0 E. 527,639.1
BOTTOM HOLE
 NAD83 S.P.C.(FT) N. 480,583.0 E. 1,641,705.0
 NAD83 GEO. LAT-(N) 39.813579 LONG-(W) 80.663384
 NAD83 UTM (M) N. 4,407,120.8 E. 528,811.5

SCALE 1" = 2000' FILE NO. 8911P4HM.dwg
 HUDSON S-4HM REV3
 DATE JUNE 14 20 19
 REVISED 20
 OPERATORS WELL NO. HUDSON S-4HM
 API WELL NO. 47-051-02251 HGA
 STATE COUNTY PERMIT

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



WELL OPERATOR TUG HILL OPERATING, LLC
 ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
 FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
 ADDRESS 5400 D BIG TYLER ROAD
 CHARLESTON, WV 25313

**HUDSON S
WELL 4HM
TUG HILL OPERATING**

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°50'00"

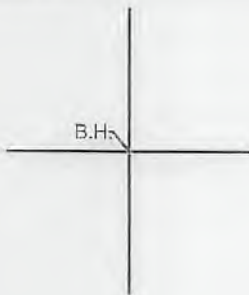
T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°37'30"

7,186' B.H.

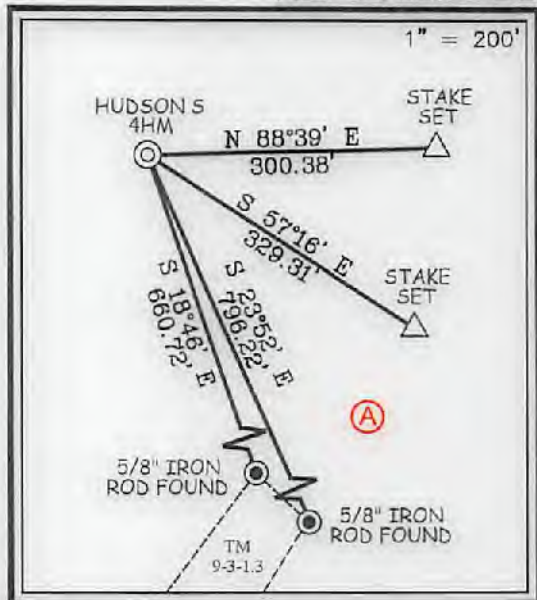
MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-2-9.1	CONSOLIDATION COAL CO.	1.00
9-2-9.2	CONSOLIDATION COAL CO.	1.00
9-3-1.2	CONSOLIDATION COAL CO.	1.00
9-5-11.1	MARK H. FOX	2.619
9-5-11.3	MARK H. FOX	1.94
9-5-11.2	LARRY WHETZEL, JR.	2.355
9-5-12	LARRY WHETZEL, JR.	1.00
9-5-13	SHELLY ANN JORDAN	5.51
9-7-9	CNX LAND CO. LLC	2.00
9-8-1	CNX LAND CO. LLC	2.908
9-8-2	CNX LAND CO. LLC	6000 SQ. FT.
9-8-4.1	CNX LAND RESOURCES, INC.	0.333

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'83 S.P.C. (FT)	N. 406,164.16	E. 1,639,161.49
NAD'83 GEO.	LAT-(N) 39.828864	LONG-(W) 80.672698
NAD'83 UTM (M)	N. 4,409,814.32	E. 528,003.05
LANDING POINT		
NAD'83 S.P.C. (FT)	N. 487,308.9	E. 1,637,969.6
NAD'83 GEO.	LAT-(N) 39.831964	LONG-(W) 80.678995
NAD'83 UTM (M)	N. 4,409,157.0	E. 527,639.1
BOTTOM HOLE		
NAD'83 S.P.C. (FT)	N. 480,568.0	E. 1,641,705.0
NAD'83 GEO.	LAT-(N) 39.813579	LONG-(W) 80.663384
NAD'83 UTM (M)	N. 4,407,120.8	E. 528,811.5



REFERENCES



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.

P.S. 849 *C. Victor Moyers*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE JUNE 14, 20 19
 REVISED _____, 20 ____
 OPERATORS WELL NO. HUDSON S-4HM
 API WELL NO. 47 - 51 - 02251 **H6A**
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8911P4HM.dwg
HUDSON S-4HM REV3
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'

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

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

LOCATION: GROUND = 1,369.70' ELEVATION PROPOSED = 1,344.81' WATERSHED GRAVE CREEK (HUC 10)
 DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER CNX LAND LLC ACREAGE 106.935±
 ROYALTY OWNER CHARLENE L. BAKER, ET AL ACREAGE 106.935±
 PROPOSED WORK: LEASE NO. SEE WW-6A1
 DRILL X CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____ OTHER _____
 PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH TVD: 6,886' / TMD: 15,333'

WELL OPERATOR TUG HILL OPERATING, LLC ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107
 DESIGNATED AGENT DIANNA STAMPER CT CORPORATION SYSTEM ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

COUNTY NAME PERMIT

WW-6A1
(5/13)

Operator's Well No. Hansen S-4HM

**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
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*See attached pages

**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

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: Tug Hill Operating, LLC
 By: Amy L. Miller *Amy Miller*
 Its: Permitting Specialist - Appalachia Region

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Lease ID	Parcel	Tags	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page		Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	
10*26059	9-3-1	A	BLAKE TERRY L	CHEVRON USA INC	1/8+	854	215	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26060	9-3-1	A	BLAKE ROBERT ET UX	CHEVRON USA INC	1/8+	854	333	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26061	9-3-1	A	HUBBS RODNEY ET UX	CHEVRON USA INC	1/8+	854	435	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26062	9-3-1	A	HUBBS SHANNON ET UX	CHEVRON USA INC	1/8+	854	233	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26063	9-3-1	A	RINE PATTY ET VIR	CHEVRON USA INC	1/8+	854	238	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26064	9-3-1	A	BLAKE CATHARINE LEE	CHEVRON USA INC	1/8+	863	550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26065	9-3-1	A	MOORE DENNIS ET UX	CHEVRON USA INC	1/8+	857	646	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26066	9-3-1	A	BEYSER DANNY ET UX	CHEVRON USA INC	1/8+	858	36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26067	9-3-1	A	BEYSER DONALD D	CHEVRON USA INC	1/8+	858	41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26068	9-3-1	A	BLAKE GARY ET UX	CHEVRON USA INC	1/8+	858	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26069	9-3-1	A	REILLEY MARILYN SUE	CHEVRON USA INC	1/8+	857	597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26070	9-3-1	A	HOLMES MARY W	CHEVRON USA INC	1/8+	857	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26071	9-3-1	A	BAKER CHARLENE	CHEVRON USA INC	1/8+	857	607	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26072	9-3-1	A	BLAKE JAMES L	CHEVRON USA INC	1/8+	857	616	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26073	9-3-1	A	BEYSER DARLENE L	CHEVRON USA INC	1/8+	860	176	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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Lease ID	Parcel	Tags	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	
10*26074	9-3-1	A	MOORE RANDYLYN	CHEVRON USA INC	1/8+	860 166	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26075	9-3-1	A	CECIL BETTY JOANN	CHEVRON USA INC	1/8+	860 119	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26076	9-3-1	A	GARRISON DORIS I	CHEVRON USA INC	1/8+	860 114	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26077	9-3-1	A	BLAKE DOROTHY J ET VIR	CHEVRON USA INC	1/8+	860 104	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26078	9-3-1	A	HARRIS VELMA RUTH	CHEVRON USA INC	1/8+	860 228	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26079	9-3-1	A	LOUDEN MARY ET VIR	CHEVRON USA INC	1/8+	860 109	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26080	9-3-1	A	JAHN SHARON D ET VIR	CHEVRON USA INC	1/8+	860 217	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26081	9-3-1	A	WILSON CYNTHIA ET VIR	CHEVRON USA INC	1/8+	861 545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26082	9-3-1	A	LUTZ BRIAN C ET UX	CHEVRON USA INC	1/8+	861 550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26083	9-3-1	A	BLAKE WILLIAMS JR	CHEVRON USA INC	1/8+	861 535	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26084	9-3-1	A	DAVIDSON CYNTHIA ET VIR	CHEVRON USA INC	1/8+	889 46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26085	9-3-1	A	HIGGINS CLYDE ET UX	CHEVRON USA INC	1/8+	861 508	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26086	9-3-1	A	HIGGINS DELMAS ET UX	CHEVRON USA INC	1/8+	861 503	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26087	9-3-1	A	HIGGINS JERRY ET UX	CHEVRON USA INC	1/8+	861 526	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26088	9-3-1	A	HIGGINS SHIRL ET UX	CHEVRON USA INC	1/8+	861 540	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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Lease ID	Parcel	Tags	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page		Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	
10*26089	9-3-1	A	HIGGINS ALVA ET UX	CHEVRON USA INC	1/8+	861	521	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26090	9-3-1	A	HIGGINS DEAN ET UX	CHEVRON USA INC	1/8+	861	516	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26091	9-3-1	A	MANN JOELENE M	CHEVRON USA INC	1/8+	864	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26092	9-3-1	A	CREWS SHAWN ET UX	CHEVRON USA INC	1/8+	864	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26093	9-3-1	A	CONE JOYCE ET VIR	CHEVRON USA INC	1/8+	861	493	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26094	9-3-1	A	CURRY MARK L	CHEVRON USA INC	1/8+	865	102	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26095	9-3-1	A	MUNSON CHRISTINA C	CHEVRON USA INC	1/8+	865	107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26097	9-3-1	A	BEYSER DAVID L	CHEVRON USA INC	1/8+	865	173	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26098	9-3-1	A	HOLDER KIMBERLY	CHEVRON USA INC	1/8+	867	87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26099	9-3-1	A	TROWBRIDGE CAROL ET VIR	CHEVRON USA INC	1/8+	866	138	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26100	9-3-1	A	MAUPIN JOSEPH ET UX	CHEVRON USA INC	1/8+	866	67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26120	9-3-1	A	YOCUM JAMES ET UX	CHEVRON USA INC	1/8+	884	635	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26121	9-3-1	A	BRYNER BETTY	CHEVRON USA INC	1/8+	871	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26236	9-3-1	A	QUIGLEY VICKI ET VIR SFX	CHEVRON USA INC	1/8+	884	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26237	9-3-1	A	CAMPBELL FRED A SFX	CHEVRON USA INC	1/8+	889	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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Lease No.	Parcel	Tags	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	
10*26285	9-3-1	A	MERCER MARSHA L SFX	CHEVRON USA INC	1/8+	883 639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26287	9-3-1	A	BLAKE IVAN R ET UX	CHEVRON USA INC	1/8+	888 542	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26288	9-3-1	A	BLAKE REBECCA J	CHEVRON USA INC	1/8+	888 571	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26289	9-3-1	A	FROMHART DUANETTA B	CHEVRON USA INC	1/8+	888 574	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26290	9-3-1	A	BLAKE WANDA M	CHEVRON USA INC	1/8+	889 43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26291	9-3-1	A	MASON BARBARA A	CHEVRON USA INC	1/8+	901 125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26292	9-3-1	A	BLAKE JUDITH L	CHEVRON USA INC	1/8+	882 329	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26293	9-3-1	A	CURRY JAY C	CHEVRON USA INC	1/8+	882 433	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26294	9-3-1	A	GIEGER JOAN A	CHEVRON USA INC	1/8+	880 509	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26295	9-3-1	A	WARYCK ARTHUR ET AL	CHEVRON USA INC	1/8+	880 512	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26296	9-3-1	A	CALDWELL CARL G	CHEVRON USA INC	1/8+	883 530	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26297	9-3-1	A	MCKINNEY DIANA L	CHEVRON USA INC	1/8+	885 560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26298	9-3-1	A	HENDRICKSON JANE	CHEVRON USA INC	1/8+	886 429	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26299	9-3-1	A	WILKINSON BETTY AIF D A M	CHEVRON USA INC	1/8+	886 432	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26300	9-3-1	A	HENNER JILL LORI	CHEVRON USA INC	1/8+	886 439	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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10*26044	9-3-1.1	B	WALLACE JOYCE A	CHEVRON USA INC	1/8+	863 296	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26047	9-3-1.1	B	BLAKE ROBERT ET UX	CHEVRON USA INC	1/8+	863 138	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26048	9-3-1.1	B	ELIAS LOIS ET VIR	CHEVRON USA INC	1/8+	861 599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26049	9-3-1.1	B	HUBBS MARY H	CHEVRON USA INC	1/8+	863 560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26050	9-3-1.1	B	CROW BERNARD ET UX	CHEVRON USA INC	1/8+	863 627	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26051	9-3-1.1	B	KIDNER ROBERT W	CHEVRON USA INC	1/8+	863 644	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26052	9-3-1.1	B	BLAKE BETTY	CHEVRON USA INC	1/8+	863 545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26053	9-3-1.1	B	MOORE ANTHONY T	CHEVRON USA INC	1/8+	854 343	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26054	9-3-1.1	B	MOORE HIRAM V	CHEVRON USA INC	1/8+	854 353	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26055	9-3-1.1	B	MOORE LARRY SR	CHEVRON USA INC	1/8+	854 348	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26056	9-3-1.1	B	MOORE RONALD W	CHEVRON USA INC	1/8+	854 338	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26057	9-3-1.1	B	PURDY BRENDA ET VIR	CHEVRON USA INC	1/8+	854 420	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26058	9-3-1.1	B	WOOD CAROLE JEAN	CHEVRON USA INC	1/8+	854 414	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26059	9-3-1.1	B	BLAKE TERRY L	CHEVRON USA INC	1/8+	854 215	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26060	9-3-1.1	B	BLAKE ROBERT ET UX	CHEVRON USA INC	1/8+	854 333	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95



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Lease ID	Parcel	Tags	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*2601	9-3-1.1	B	HUBBS RODNEY ET UX	CHEVRON USA INC	1/8+	854 435	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*2602	9-3-1.1	B	HUBBS SHANNON ET UX	CHEVRON USA INC	1/8+	854 233	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*2603	9-3-1.1	B	RINE PATTY ET VIR	CHEVRON USA INC	1/8+	854 238	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26064	9-3-1.1	B	BLAKE CATHARINE LEE	CHEVRON USA INC	1/8+	863 550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26065	9-3-1.1	B	MOORE DENNIS ET UX	CHEVRON USA INC	1/8+	857 646	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26066	9-3-1.1	B	BEYSER DANNY ET UX	CHEVRON USA INC	1/8+	858 36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26067	9-3-1.1	B	BEYSER DONALD D	CHEVRON USA INC	1/8+	858 41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26068	9-3-1.1	B	BLAKE GARY ET UX	CHEVRON USA INC	1/8+	858 31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26069	9-3-1.1	B	REILLEY MARILYN SUE	CHEVRON USA INC	1/8+	857 597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26070	9-3-1.1	B	HOLMES MARY W	CHEVRON USA INC	1/8+	857 602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26071	9-3-1.1	B	BAKER CHARLENE	CHEVRON USA INC	1/8+	857 607	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26072	9-3-1.1	B	BLAKE JAMES L	CHEVRON USA INC	1/8+	857 616	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26073	9-3-1.1	B	BEYSER DARLENE L	CHEVRON USA INC	1/8+	860 176	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26074	9-3-1.1	B	MOORE RANDYLYN	CHEVRON USA INC	1/8+	860 166	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26075	9-3-1.1	B	CECIL BETTY JOANN	CHEVRON USA INC	1/8+	860 119	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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10*26075	9-3-1.1	B	GARRISON DORIS I	CHEVRON USA INC	1/8+	860	114	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26076	9-3-1.1	B	BLAKE DOROTHY J ET VIR	CHEVRON USA INC	1/8+	860	104	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26077	9-3-1.1	B	HARRIS VELMA RUTH	CHEVRON USA INC	1/8+	860	228	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26078	9-3-1.1	B	LOUDEN MARY ET VIR	CHEVRON USA INC	1/8+	860	109	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26079	9-3-1.1	B	LOUDEN MARY ET VIR	CHEVRON USA INC	1/8+	860	109	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26080	9-3-1.1	B	JAHN SHARON D ET VIR	CHEVRON USA INC	1/8+	860	217	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26081	9-3-1.1	B	WILSON CYNTHIA ET VIR	CHEVRON USA INC	1/8+	861	545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26082	9-3-1.1	B	LUTZ BRIAN C ET UX	CHEVRON USA INC	1/8+	861	550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26083	9-3-1.1	B	BLAKE WILLIAMS JR	CHEVRON USA INC	1/8+	861	535	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26084	9-3-1.1	B	DAVIDSON CYNTHIA ET VIR	CHEVRON USA INC	1/8+	889	46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26085	9-3-1.1	B	HIGGINS CLYDE ET UX	CHEVRON USA INC	1/8+	861	508	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26086	9-3-1.1	B	HIGGINS DELMAS ET UX	CHEVRON USA INC	1/8+	861	503	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26087	9-3-1.1	B	HIGGINS JERRY ET UX	CHEVRON USA INC	1/8+	861	526	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26088	9-3-1.1	B	HIGGINS SHIRL ET UX	CHEVRON USA INC	1/8+	861	540	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26089	9-3-1.1	B	HIGGINS ALVA ET UX	CHEVRON USA INC	1/8+	861	521	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26090	9-3-1.1	B	HIGGINS DEAN ET UX	CHEVRON USA INC	1/8+	861	516	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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10*26091	9-3-1.1	B	MANN JOELENE M	CHEVRON USA INC	1/8+	864 55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26093	9-3-1.1	B	CREWS SHAWN ET UX	CHEVRON USA INC	1/8+	864 50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26092	9-3-1.1	B	CONE JOYCE ET VIR	CHEVRON USA INC	1/8+	861 493	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26094	9-3-1.1	B	CURRY MARK L	CHEVRON USA INC	1/8+	865 102	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26095	9-3-1.1	B	MUNSON CHRISTINA C	CHEVRON USA INC	1/8+	865 107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26097	9-3-1.1	B	BEYSER DAVID L	CHEVRON USA INC	1/8+	865 173	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26098	9-3-1.1	B	HOLDER KIMBERLY	CHEVRON USA INC	1/8+	867 87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26099	9-3-1.1	B	TROWBRIDGE CAROL ET VIR	CHEVRON USA INC	1/8+	866 138	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26100	9-3-1.1	B	MAUPIN JOSEPH ET UX	CHEVRON USA INC	1/8+	866 67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26120	9-3-1.1	B	YOCUM JAMES ET UX	CHEVRON USA INC	1/8+	884 635	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26121	9-3-1.1	B	BRYNER BETTY	CHEVRON USA INC	1/8+	871 64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26236	9-3-1.1	B	QUIGLEY VICKI ET VIR SFX	CHEVRON USA INC	1/8+	884 50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26237	9-3-1.1	B	CAMPBELL FREDA L SFX	CHEVRON USA INC	1/8+	889 40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26238	9-3-1.1	B	MERCER MARSHA L SFX	CHEVRON USA INC	1/8+	883 639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26287	9-3-1.1	B	BLAKE IVAN R ET UX	CHEVRON USA INC	1/8+	888 542	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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10*26288	9-3-1.1	B	BLAKE REBECCA J	CHEVRON USA INC	1/8+	888	571	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26289	9-3-1.1	B	FROMHART DUANETTA B	CHEVRON USA INC	1/8+	888	574	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26290	9-3-1.1	B	BLAKE WANDA M	CHEVRON USA INC	1/8+	889	43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26291	9-3-1.1	B	MASON BARBARA A	CHEVRON USA INC	1/8+	901	125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26292	9-3-1.1	B	BLAKE JUDITH L	CHEVRON USA INC	1/8+	882	329	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26293	9-3-1.1	B	CURRY JAY C	CHEVRON USA INC	1/8+	882	433	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26294	9-3-1.1	B	GIEGER JOAN A	CHEVRON USA INC	1/8+	880	509	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26295	9-3-1.1	B	WARYCK ARTHUR ET AL	CHEVRON USA INC	1/8+	880	512	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26296	9-3-1.1	B	CALDWELL CARL G	CHEVRON USA INC	1/8+	883	530	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26297	9-3-1.1	B	MCKINNEY DIANA L	CHEVRON USA INC	1/8+	885	560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26298	9-3-1.1	B	HENDRICKSON JANE	CHEVRON USA INC	1/8+	886	429	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26299	9-3-1.1	B	WILKINSON BETTY AIF D A M	CHEVRON USA INC	1/8+	886	432	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26300	9-3-1.1	B	HENNEN JILL LORI	CHEVRON USA INC	1/8+	886	439	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26304	9-3-1.1	B	CNX GAS COMPANY ET AL	CHEVRON USA INC	1/8+	888	521	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26304	9-2-10.1	C	CNX GAS COMPANY ET AL	CHEVRON USA INC	1/8+	888	521	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Chevron USA Inc to
 TH Exploration II LLC
 & TH Exploration LLC:
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10*26001	9-2-10	D	FREDDIE C. WHITE AND VIOLET L. WHITE, HUSBAND AND WIFE	TRIENERGY INC	1/8+	655 555	TriEnergy Inc to AB Resources LLC: 19/623	AB Resources LLC to Chief Exploration & Development LLC: 666/40	TriEnergy Inc to TriEnergy Holdings LLC: 21/148	Chief & Radler 2000 LP to Enerplus Resources (USA) Corp: 685/643	Chief & Radler 2000 LP to Enerplus Resources (USA) Corp: 21/520	AB Resources LLC to Chief E&D LLC & Radler : 24/319	Chief E&D LLC, Chief O&G LLC, Radler 2000 LP & Enerplus to Chevron USA Inc: 25/1 & 25/105	AB Resources LLC to Chevron USA Inc: 756/397	TriEnergy Holdings LLC to TriEnergy Inc to Chevron USA Inc: 28/356	TriEnergy Holdings LLC to TriEnergy Inc to Chevron USA Inc: 28/356	TriEnergy Holdings LLC to TriEnergy Inc to Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26018	9-3-1.3	E	NANCY L WEST	TRIENERGY HOLDINGS, LLC	1/8+	737 248	N/A	N/A	N/A	N/A	N/A	N/A	Tri Energy Holdings LLC to NPAR LLC: 25/449	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC to TriEnergy Inc to Chevron USA Inc: 28/356	TriEnergy Holdings LLC to TriEnergy Inc to Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95	
10*26044	9-3-1.3	E	WALLACE JOYCE A	CHEVRON USA INC	1/8+	863 296	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26047	9-3-1.3	E	BLAKE ROBERT ET UX	CHEVRON USA INC	1/8+	863 138	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26048	9-3-1.3	E	ELIAS LOIS ET VIR	CHEVRON USA INC	1/8+	861 599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26049	9-3-1.3	E	HUBBS MARY H	CHEVRON USA INC	1/8+	863 560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26050	9-3-1.3	E	CROW BERNARD ET UX	CHEVRON USA INC	1/8+	863 627	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26051	9-3-1.3	E	KIDNER ROBERT W	CHEVRON USA INC	1/8+	863 644	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26052	9-3-1.3	E	BLAKE BETTY	CHEVRON USA INC	1/8+	863 545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26053	9-3-1.3	E	MOORE ANTHONY T	CHEVRON USA INC	1/8+	854 343	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26054	9-3-1.3	E	MOORE HIRAM V	CHEVRON USA INC	1/8+	854 353	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26055	9-3-1.3	E	MOORE LARRY SR	CHEVRON USA INC	1/8+	854 348	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26056	9-3-1.3	E	MOORE RONALD W	CHEVRON USA INC	1/8+	854 338	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26057	9-3-1.3	E	PURDY BRENDA ET VIR	CHEVRON USA INC	1/8+	854 420	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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10*26058	9-3-1.3	E	WOOD CAROLE JEAN	CHEVRON USA INC	1/8+	854	414	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26059	9-3-1.3	E	BLAKE TERRY L	CHEVRON USA INC	1/8+	854	215	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26060	9-3-1.3	E	BLAKE ROBERT ET UX	CHEVRON USA INC	1/8+	854	333	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26061	9-3-1.3	E	HUBBS RODNEY ET UX	CHEVRON USA INC	1/8+	854	435	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26062	9-3-1.3	E	HUBBS SHANNON ET UX	CHEVRON USA INC	1/8+	854	233	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26063	9-3-1.3	E	RINE PATTY ET VIR	CHEVRON USA INC	1/8+	854	238	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26064	9-3-1.3	E	BLAKE CATHARINE LEE	CHEVRON USA INC	1/8+	863	550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26065	9-3-1.3	E	MOORE DENNIS ET UX	CHEVRON USA INC	1/8+	857	646	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26066	9-3-1.3	E	BEYSER DANNY ET UX	CHEVRON USA INC	1/8+	858	36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26067	9-3-1.3	E	BEYSER DONALD D	CHEVRON USA INC	1/8+	858	41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26068	9-3-1.3	E	BLAKE GARY ET UX	CHEVRON USA INC	1/8+	858	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26069	9-3-1.3	E	REILLEY MARILYN SUE	CHEVRON USA INC	1/8+	857	597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26070	9-3-1.3	E	HOLMES MARY W	CHEVRON USA INC	1/8+	857	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26071	9-3-1.3	E	BAKER CHARLENE	CHEVRON USA INC	1/8+	857	607	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26072	9-3-1.3	E	BLAKE JAMES L	CHEVRON USA INC	1/8+	857	616	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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10*26073	9-3-1.3	E	BEYSER DARLENE L	CHEVRON USA INC	1/8+	860 176	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26074	9-3-1.3	E	MOORE RANDLYN	CHEVRON USA INC	1/8+	860 166	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26075	9-3-1.3	E	CECIL BETTY JOANN	CHEVRON USA INC	1/8+	860 119	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26076	9-3-1.3	E	GARRISON DORIS I	CHEVRON USA INC	1/8+	860 114	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26077	9-3-1.3	E	BLAKE DOROTHY J ET VIR	CHEVRON USA INC	1/8+	860 104	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26078	9-3-1.3	E	HARRIS VELMA RUTH	CHEVRON USA INC	1/8+	860 228	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26079	9-3-1.3	E	LOUDEN MARY ET VIR	CHEVRON USA INC	1/8+	860 109	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26080	9-3-1.3	E	JAHN SHARON D ET VIR	CHEVRON USA INC	1/8+	860 217	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26081	9-3-1.3	E	WILSON CYNTHIA ET VIR	CHEVRON USA INC	1/8+	861 545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26082	9-3-1.3	E	LUTZ BRIAN C ET UX	CHEVRON USA INC	1/8+	861 550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26083	9-3-1.3	E	BLAKE WILLIAMS JR	CHEVRON USA INC	1/8+	861 535	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26084	9-3-1.3	E	DAVIDSON CYNTHIA ET VIR	CHEVRON USA INC	1/8+	889 46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26085	9-3-1.3	E	HIGGINS CLYDE ET UX	CHEVRON USA INC	1/8+	861 508	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26086	9-3-1.3	E	HIGGINS DELMAS ET UX	CHEVRON USA INC	1/8+	861 503	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26087	9-3-1.3	E	HIGGINS JERRY ET UX	CHEVRON USA INC	1/8+	861 526	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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10*26237	9-3-1.3	E	CAMPBELL FRED A L SFX	CHEVRON USA INC	1/8+	889	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26238	9-3-1.3	E	MERCER MARSHA L SFX	CHEVRON USA INC	1/8+	883	639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26239	9-3-1.3	E	BLAKE IVAN R ET UX	CHEVRON USA INC	1/8+	888	542	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26288	9-3-1.3	E	BLAKE REBECCA J	CHEVRON USA INC	1/8+	888	571	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26289	9-3-1.3	E	FROMHART DUANETTA B	CHEVRON USA INC	1/8+	888	574	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26290	9-3-1.3	E	BLAKE WANDA M	CHEVRON USA INC	1/8+	889	43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26291	9-3-1.3	E	MASON BARBARA A	CHEVRON USA INC	1/8+	901	125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26292	9-3-1.3	E	BLAKE JUDITH L	CHEVRON USA INC	1/8+	882	329	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26293	9-3-1.3	E	CURRY JAY C	CHEVRON USA INC	1/8+	882	433	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26294	9-3-1.3	E	GIEGER JOAN A	CHEVRON USA INC	1/8+	880	509	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26295	9-3-1.3	E	WARYCK ARTHUR ET AL	CHEVRON USA INC	1/8+	880	512	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26296	9-3-1.3	E	CALDWELL CARL G	CHEVRON USA INC	1/8+	883	530	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26297	9-3-1.3	E	MCKINNEY DIANA L	CHEVRON USA INC	1/8+	885	560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26298	9-3-1.3	E	HENDRICKSON JANE	CHEVRON USA INC	1/8+	886	429	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26299	9-3-1.3	E	WILKINSON BETTY AIF D A M	CHEVRON USA INC	1/8+	886	432	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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10*26300	9-3-1.3	E	HENNEN JILL LORI	CHEVRON USA INC	1/8+	886 439	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24424	9-5-11	F	THE FAYE A SKOJEN REVOCABLE TRUST	TH EXPLORATION LLC	1/8+	1024 291	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24578	9-5-11	F	FRANK E WHITMAN JR AND GAYLE WHITMAN	TH EXPLORATION LLC	1/8+	1026 241	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24973	9-5-11	F	IVA K BONAR	TH EXPLORATION LLC	1/8+	1028 577	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26096	9-5-11	F	BONAR GRACE LAURA	CHEVRON USA INC	1/8+	865 198	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26101	9-5-11	F	HADLEY BARBARA LOIS	CHEVRON USA INC	1/8+	868 21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26102	9-5-11	F	ORTOLL AMBER A	CHEVRON USA INC	1/8+	871 391	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26103	9-5-11	F	BONAR ROBERT GLENN	CHEVRON USA INC	1/8+	868 92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26104	9-5-11	F	SCHILLING JAMES MCPHERSON	CHEVRON USA INC	1/8+	868 202	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26105	9-5-11	F	FAUST LESTER D	CHEVRON USA INC	1/8+	870 560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26106	9-5-11	F	BOGATKO RICHARD C	CHEVRON USA INC	1/8+	870 557	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26128	9-5-11	F	BRUNNER WILLIAM JR ET UX	CHEVRON USA INC	1/8+	888 30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26129	9-5-11	F	FAUST MARJORIE JARETTA	CHEVRON USA INC	1/8+	888 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26167	9-5-11	F	DAY FRANK B	CHEVRON USA INC	1/8+	871 583	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26201	9-5-11	F	MCWHORTER IDEN SCOTT	CHEVRON USA INC	1/8+	888 21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26202	9-5-11	F	MITCHELL LOTA ET VIR	CHEVRON USA INC	1/8+	888 27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26306	9-5-11	F	BONAR DAVID L	CHEVRON USA INC	1/8+	890 475	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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10*26308	9-5-11	F	SALO HARRY ET UX	CHEVRON USA INC	1/8+	894	395	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26309	9-5-11	F	ARMIGER STEVEN ALAN	CHEVRON USA INC	1/8+	891	69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26310	9-5-11	F	FAIRBROTHER KATHERINE L	CHEVRON USA INC	1/8+	901	38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26313	9-5-11	F	DURINSKY JOSEPH	CHEVRON USA INC	1/8+	893	244	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26314	9-5-11	F	KACHELE ROBIN	CHEVRON USA INC	1/8+	893	180	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26337	9-5-11	F	SHIREY KATHLEEN SFX	CHEVRON USA INC	1/8+	901	134	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26345	9-5-11	F	EVANS SHARON L SFX	CHEVRON USA INC	1/8+	915	597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26354	9-5-11	F	SCHMITT ALBERT JOHN	CHEVRON USA INC	1/8+	899	484	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26355	9-5-11	F	MASSARO ANTHONY	CHEVRON USA INC	1/8+	899	452	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26356	9-5-11	F	FERRANDINO MARLENE R	CHEVRON USA INC	1/8+	899	461	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26357	9-5-11	F	PAPPA PHILIP J	CHEVRON USA INC	1/8+	899	458	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26358	9-5-11	F	FELDMAN BARBARA	CHEVRON USA INC	1/8+	899	455	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26359	9-5-11	F	DODARO DENISE R	CHEVRON USA INC	1/8+	900	49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26360	9-5-11	F	MAZZOLA LOUISE M	CHEVRON USA INC	1/8+	901	431	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26361	9-5-11	F	PAPPA VICTORIA C	CHEVRON USA INC	1/8+	901	416	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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10*26362	9-5-11	F	PAPPAS JAYME	CHEVRON USA INC	1/8+	905	119	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26363	9-5-11	F	PAPPAS ROBYN	CHEVRON USA INC	1/8+	905	116	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26367	9-5-11	F	IOVACCHINI ADREANNA	CHEVRON USA INC	1/8+	943	589	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26806	9-5-11	F	JASON R FREID	TH EXPLORATION LLC	1/8+	1045	457	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26001	9-5-11	F	FREDDIE C. WHITE AND VIOLET L. WHITE, HUSBAND AND WIFE	TRIENERGY INC	1/8+	655	555	TriEnergy Inc to AB Resources LLC: 19/623	AB Resources LLC to Chief Exploration & Development LLC: 666/40	TriEnergy Inc to TriEnergy Holdings LLC: 21/148	Chief & Radler 2000 LP to Enerplus Resources (USA) Corp: 685/643	Chief & Radler 2000 LP to Enerplus Resources (USA) Corp: 21/520	AB Resources LLC to Chief E&D LLC & Radler : 24/319	Chief E&D LLC, Chief O&G LLC, Radler 2000 LP & Enerplus to Chevron USA Inc: 25/1 & 25/105	AB Resources LLC to Chevron USA Inc: 756/397	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*47051.109.0	9-8-4.2	G	DONALD M AND THERESA L HARRIS	TH EXPLORATION LLC	1/8+	859	440	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TH Exploration LLC to Chevron USA Inc: 36/168
10*26113	9-8-3	H	RINE ELWIN O ET UX	CHEVRON USA INC	1/8+	880	434	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26114	9-8-3	H	HARRIS VELMA RUTH	CHEVRON USA INC	1/8+	873	574	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26115	9-8-3	H	LAMB JOYCE L	CHEVRON USA INC	1/8+	880	437	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26123	9-8-3	H	BARKER LAURA R	CHEVRON USA INC	1/8+	873	584	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26124	9-8-3	H	JEFFERSON PATTY D	CHEVRON USA INC	1/8+	874	41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26125	9-8-3	H	COLLINS DEBORAH A	CHEVRON USA INC	1/8+	874	27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26126	9-8-3	H	WEST WILLIAM C	CHEVRON USA INC	1/8+	880	431	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26168	9-8-3	H	BURKHART LEANNE E	CHEVRON USA INC	1/8+	873	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26169	9-8-3	H	WINGROVE LISA MAY	CHEVRON USA INC	1/8+	880	422	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95



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10*26170	9-8-3	H	WALKER JENNIFER L	CHEVRON USA INC	1/8+	874	36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26171	9-8-3	H	KNIGHT MELISSA	CHEVRON USA INC	1/8+	873	590	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26172	9-8-3	H	MOORE NELDA RUTH	CHEVRON USA INC	1/8+	873	593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26173	9-8-3	H	ANDERSON DEANNA E	CHEVRON USA INC	1/8+	874	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26174	9-8-3	H	BURKHART JANICE M	CHEVRON USA INC	1/8+	873	599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26175	9-8-3	H	KELCH CAROL LYNN	CHEVRON USA INC	1/8+	880	425	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26176	9-8-3	H	AGUILAR LINDA L	CHEVRON USA INC	1/8+	874	33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26177	9-8-3	H	BURKHART OTIS JR	CHEVRON USA INC	1/8+	873	587	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26178	9-8-3	H	BELL MELBA L	CHEVRON USA INC	1/8+	873	577	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26179	9-8-3	H	HILLVIEW TERRACE CHURCH	CHEVRON USA INC	1/8+	873	580	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26196	9-8-3	H	BUTLER CHRISTINA ROSE	CHEVRON USA INC	1/8+	876	298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26197	9-8-3	H	BURKHART RONALD DEAN	CHEVRON USA INC	1/8+	876	301	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26198	9-8-3	H	SALEM CHURCH OF CHRIST	CHEVRON USA INC	1/8+	876	304	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26199	9-8-3	H	WINE DANIEL M	CHEVRON USA INC	1/8+	880	457	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26200	9-8-3	H	CLARK DEBRA	CHEVRON USA INC	1/8+	880	454	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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10*26241	9-8-3	H	RICHMOND PHYLLIS ET AL	CHEVRON USA INC	1/8+	887	361	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26242	9-8-3	H	GOODNIGHT TRACI LYNN	CHEVRON USA INC	1/8+	882	173	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26243	9-8-3	H	TRUEX MARLA JEAN	CHEVRON USA INC	1/8+	882	164	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26244	9-8-3	H	LAVENSKI BRENDA KAY	CHEVRON USA INC	1/8+	882	167	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26245	9-8-3	H	HARTLE TERESA ANN	CHEVRON USA INC	1/8+	882	326	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26246	9-8-3	H	WILLIAMS LISA MARIE	CHEVRON USA INC	1/8+	882	170	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26247	9-8-3	H	BOUGHER CYNTHIA L	CHEVRON USA INC	1/8+	884	27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26113	Cemetery Lot	I	RINE ELDWIN O ET UX	CHEVRON USA INC	1/8+	880	434	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26114	Cemetery Lot	I	HARRIS VELMA RUTH	CHEVRON USA INC	1/8+	873	574	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26115	Cemetery Lot	I	LAMB JOYCE L	CHEVRON USA INC	1/8+	880	437	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26123	Cemetery Lot	I	BARKER LAURA R	CHEVRON USA INC	1/8+	873	584	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26124	Cemetery Lot	I	JEFFERSON PATTY D	CHEVRON USA INC	1/8+	874	41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26125	Cemetery Lot	I	COLLINS DEBORAH A	CHEVRON USA INC	1/8+	874	27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26126	Cemetery Lot	I	WEST WILLIAM C	CHEVRON USA INC	1/8+	880	431	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26168	Cemetery Lot	I	BURKHART LEANNE E	CHEVRON USA INC	1/8+	873	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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10*26169	Cemetery Lot	I	WINGROVE LISA MAY	CHEVRON USA INC	1/8+	880	422	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26170	Cemetery Lot	I	WALKER JENNIFER L	CHEVRON USA INC	1/8+	874	36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26171	Cemetery Lot	I	KNIGHT MELISSA	CHEVRON USA INC	1/8+	873	590	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26172	Cemetery Lot	I	MOORE NELDA RUTH	CHEVRON USA INC	1/8+	873	593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26173	Cemetery Lot	I	ANDERSON DEANNA E	CHEVRON USA INC	1/8+	874	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26174	Cemetery Lot	I	BURKHART JANICE M	CHEVRON USA INC	1/8+	873	599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26175	Cemetery Lot	I	KELCH CAROL LYNN	CHEVRON USA INC	1/8+	880	425	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26176	Cemetery Lot	I	AGUILAR LINDA L	CHEVRON USA INC	1/8+	874	33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26177	Cemetery Lot	I	BURKHART OTIS JR	CHEVRON USA INC	1/8+	873	587	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26178	Cemetery Lot	I	BELL MELBA L	CHEVRON USA INC	1/8+	873	577	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26179	Cemetery Lot	I	HILLVIEW TERRACE CHURCH	CHEVRON USA INC	1/8+	873	580	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26196	Cemetery Lot	I	BUTLER CHRISTINA ROSE	CHEVRON USA INC	1/8+	876	298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26197	Cemetery Lot	I	BURKHART RONALD DEAN	CHEVRON USA INC	1/8+	876	301	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26198	Cemetery Lot	I	ALLEN CHURCH OF CHRIST	CHEVRON USA INC	1/8+	876	304	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26199	Cemetery Lot	I	WINE DANIEL M	CHEVRON USA INC	1/8+	880	457	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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10*26200	Cemetery Lot	I	CLARK DEBRA	CHEVRON USA INC	1/8+	880 454	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26241	Cemetery Lot	I	RICHMOND PHYLLIS ET AL	CHEVRON USA INC	1/8+	887 361	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26242	Cemetery Lot	I	GOODNIGHT TRACI LYNN	CHEVRON USA INC	1/8+	882 173	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26243	Cemetery Lot	I	TRUEX MARLA JEAN	CHEVRON USA INC	1/8+	882 164	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26244	Cemetery Lot	I	LAVENSKI BRENDA KAY	CHEVRON USA INC	1/8+	882 167	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26245	Cemetery Lot	I	HARTLE TERESA ANN	CHEVRON USA INC	1/8+	882 326	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26246	Cemetery Lot	I	WILLIAMS LISA MARIE	CHEVRON USA INC	1/8+	882 170	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26247	Cemetery Lot	I	BOUGHER CYNTHIA L	CHEVRON USA INC	1/8+	884 27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*47051.109.0	9-7-10	J	DONALD M AND THERESA L HARRIS	TH EXPLORATION LLC	1/8+	859 440	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TH Exploration LLC to Chevron USA Inc: 36/168 Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26005	9-8-12.1	K	GEORGE AND SHIRLEY KOONTZ, HIS WIFE	NPAR LLC	1/8+	698 346	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AB Resources LLC & NPAR LLC to Chief Exploration & Deveopment LLC & Radler 2000 LP: 24/490 Chief E&D LLC, Chief O&G LLC, Radler 2000 LP & Enerplus Resources (USA) Corp to Chevron: 25/1 & 25/105 NPAR LLC to Chevron USA Inc: 756/332 Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26005	9-8-12	L	GEORGE AND SHIRLEY KOONTZ, HIS WIFE	NPAR LLC	1/8+	698 346	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AB Resources LLC & NPAR LLC to Chief Exploration & Deveopment LLC & Radler 2000 LP: 24/490 Chief E&D LLC, Chief O&G LLC, Radler 2000 LP & Enerplus Resources (USA) Corp to Chevron: 25/1 & 25/105 NPAR LLC to Chevron USA Inc: 756/332 Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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CANTONSBURG PA 15317-5841

BOOK-0-043 PAGE 0095

STATE OF WEST VIRGINIA §
 §
COUNTY OF MARSHALL §

ASSIGNMENT AND BILL OF SALE

This **ASSIGNMENT AND BILL OF SALE** (this "**Assignment**") dated as of February 7, 2019 (the "**Signing Date**"), but effective from and after 7:00 a.m., Eastern Standard Time on February 1, 2019 (the "**Effective Date**"), is made by Chevron U.S.A. Inc., a Pennsylvania corporation, with an address at 700 Cherrington Parkway, Coraopolis, PA 15108 ("**Chevron**" or "**Assignor**") to TH Exploration II, LLC and TH Exploration, LLC, Texas limited liability companies, with an address at 1320 S. University Drive, Suite 500, Fort Worth, TX 76107 (collectively "**Assignee**") and is accepted by Assignee upon the following terms and conditions.

RECITALS

- A. Assignor desires to sell, convey, transfer, assign and deliver to Assignee Assignor's Crawford 1 well and certain related assets, including certain leasehold interests, located in Marshall County, West Virginia.
- B. Through an Acreage Trade Agreement to be executed contemporaneously with this Assignment, Assignor desires to transfer, convey and assign to Assignee certain of Assignor's oil and gas leasehold interests located in Marshall County, West Virginia in exchange for the transfer, conveyance and assignment to Assignor by Assignee certain of Assignee's oil and gas leasehold interests located in Marshall County, West Virginia.
- C. In consideration of the mutual promises set out in this Assignment, including execution of the Acreage Trade Agreement, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree to be bound by the terms of this Assignment.

1. DEFINITIONS

- 1.1 **Definitions.** As used in this Assignment, these words and expressions have the following meanings:

"**Acreage Trade Agreement**" means that certain Acreage Trade Agreement by and between Chevron U.S.A. Inc. and TH Exploration, LLC with an Effective Date of February 1, 2019 to be contemporaneously executed with this Assignment.

"**Act**" has the meaning given to such term in Section 9.1(C).

"**Affiliate**" means any legal entity which controls, is controlled by, or is under common control with, another legal entity. An entity is deemed to "control" another if it owns directly or indirectly at least fifty percent of either of the following: (A) the shares entitled to vote at a general election of directors of such

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June 21, 2019

WV Department of Environmental Protection
Office of Oil & Gas
601 57th Street, SE
Charleston, WV 25304
Attention: Laura Adkins

RE: Hudson S-4HM

Subject: Marshall County Route 62 Road Crossing Letter

Dear Laura:

Tug Hill Operating, LLC (THO) hereby submits this letter as confirmation that THO has obtained the right to drill, extract and produce the minerals under Marshall County Route 62 in the area reflected on the Hudson S-4HM well plat. THO has conducted a full title search in the relevant Court House to confirm its ownership under said County Routes and is not currently aware of any recorded document that would suggest an ownership other than THO.

If your office has any questions or concerns regarding the contents of this letter, please do not hesitate to contact me directly at 304-376-0111, or by email at amiller@tug-hilop.com.

Sincerely,

Amy Miller
Permit Specialist – Appalachia Region
Cell 304-376-0111
Email: amiller@tug-hilop.com

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

Date of Notice Certification: 08/21/2019

API No. 47- 051 -
Operator's Well No. Hudson S-4HM
Well Pad Name: Hudson

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>4,408,814.32</u>
County: <u>Marshall</u>	UTM NAD 83 Northing: <u>528,008.05</u>
District: <u>Moade</u>	Public Road Access: <u>Roberts Ridge Road (CR 21)</u>
Quadrangle: <u>Glen Easton 7.5"</u>	Generally used farm name: <u>CNX Land, LLC</u>
Watershed: <u>Grave Creek (HUC 10)</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 (h) 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: 40px;"><input 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>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p>RECEIVED</p>
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Office of Oil and Gas

Required Attachments:

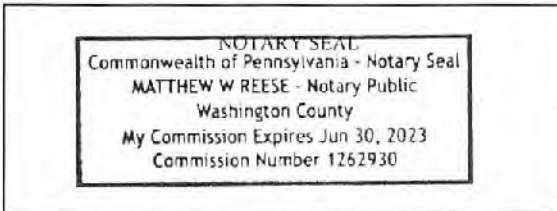
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class 1 Legal Advertisement with publication 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.

APR 24 2019
WV Department of
Environmental Protection

Certification of Notice is hereby given:

THEREFORE, I Amy L. Miller, 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>Tug Hill Operating, LLC</u>	Address:	<u>380 Southpointe Boulevard, Plaza II, Suite 200</u>
By:	<u>Amy L. Miller <i>[Signature]</i></u>		<u>Canonsburg, PA 15317</u>
Its:	<u>Permitting Specialist - Appalachia Region</u>	Facsimile:	<u>724-338-2030</u>
Telephone:	<u>724-749-8388</u>	Email:	<u>amiller@tug-hillco.com</u>



Subscribed and sworn before me this 21 day of June 2019.
[Signature] Notary Public
 My Commission Expires 6-30-2023

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.

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**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: 6/4/2019 **Date of Planned Entry:** 6/11/2019

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: CNX Land Resources, LLC Attn: Casey Saunders (Well Pad)
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

Name: Robert L. and Melinda J. White (Access Road)
Address: 129 Freddles Lane
Glen Easton, WV 26039

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: Consolidation Coal Company
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

MINERAL OWNER(s)

Name: Charlene L. Baker *See attached list
Address: 5523 Roberts Ridge Road
Moundsville, WV 26041

*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>39.82881036; -80.67262857</u>
County: <u>Marshall</u>	Public Road Access: <u>Co. Route 21</u>
District: <u>Meade</u>	Watershed: <u>Grave Creek</u>
Quadrangle: <u>Glen Easton</u>	Generally used farm name: <u>CNX Land Resources, LLC</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 5th 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.

Notice is hereby given by:

Well Operator: Tug Hill Operating, LLC
Telephone: 724-749-9388
Email: amiller@tug-hilltop.com

Address: 380 Southpointe Boulevard, Plaza II, Suite 200
Canonsburg, PA 15317

Facsimile: 724-338-2030

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WV Department of
Environmental Protection

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.

Additional Mineral Owners for Notice**WW-6A3****Hudson Pad**

Black Gold Group
P.O. Box 85
Strasburg, OH 44680

Betty J. Blake
2 Portsmouth Rd.
Front Royal, VA 22630

Catherine Lee Blake
101 Tomlinson Ave.
Moundsville, WV 26041

Gary F. Blake
3801 Needham Rd.
Mansfield, OH 44904

Ivan R. Blake
2315 Wolf Run Rd.
Cameron, WV 26033

James L. Blake
P.O. Box 124
Farson, WY 82932

Judith L. Blake
515 Meade Ave.
Akron, OH 44305

Rebecca J. Blake
1506 6th St.
Moundsville, WV 26041

Robert C. Blake
1400 Third St.
Moundsville, WV 26041

Robert D. Blake
3757 Main St.
Weirton, WV 26062

Terry L. Blake
213 Birch Ave.
Moundsville, WV 26041

William S. Blake Jr.
P.O. Box 349
Comfort, WV 25049

Betty Joan Cecil
200 Simmons Dr.
Moundsville, WV 26041

Shawn J. Crews
39 Branch Ln.
Broadway, NC 27505

Bernard R. Crow
78 Dwight Ave.
Moundsville, WV 26041

Jay C. Curry
635 Minebanck Rd.
Middletown, VA 22645

Mark L. Curry
14 Pilgrims Way
Bentonville, VA 22610

Cynthia A. Davidson
7079 Hayes Orangeville Road NE
Burghill, OH 44404

Lois J. Elias
17 East Paxton Ave.
Wheeling, WV 26033

Daunetta B. Fromhart
1309 Center St.
Moundsville, WV 26041

Dorothy J. Harris
2212 Turkey Run Rd.
Buckhannon, WV 26201

Velma Ruth Harris
3307 Bowman Ridge Rd.
Glen Easton, WV 26039

Jane Lynn Hendrickson
236 Westwood Dr.
Circleville, OH 43113

Jill Lori Hennen
2004 Baxter Ave.
Orlando, FL 32806

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Alva L. Higgins
4466 Templeton Road NW
Warren, OH 44481

H. Dean Higgins
9729 Gladstone Rd.
North Jackson, OH 44451

Jerry L. Higgins
3460 Park Avenue Ext.
Warren, OH 44481

Kimberly J. Holder
5815 Highway 217
Erwin, NC 28339

Rodney W. Hubbs
305 Sentimental Dr.
Moundsville, WV 26041

Robert W. Kidner
7757 Hansgrove Ct.
Dublin, OH 43016

Brian C. Lutz
364 Roseberry Ln.
Wheeling, WV 26003

Barbara A. Mason
363 Ridgeview Lane
Moundsville, WV 26041

Joseph L. Maupin
34626 Morning Glory Glen
Zephyrhills, FL 33541

Christina C. Munson
14 Pilgrims Way
Bentonville, VA 22610

Brenda S. Purdy
1404 Third St.
Moundsville, WV 26041

Carol J. Trowbridge
34710 Morning Glory Glen
Zephyrhills, FL 33541

Carol Jean Wood
106 Arlington Ave.
Moundsville, WV 26041

Clyde R. Higgins
2601 Milton Newton Rd.
Newton Falls, OH 44444

Delmas W. Higgins
7316 Elm St.
Newton Falls, OH 44444

Shirl W. Higgins
5241 Pritchard Ohltown Rd.
Newton Falls, OH 44444

Mary H. Hubbs
17 Hubbs Ln.
Moundsville, WV 26041

Shannon Roger Hubbs
27 Bowman Ridge
Moundsville, WV 26041

Mary O. Loudon
10 Sandy Ave.
Moundsville, WV 26041

Jolene M. Mann
494 Longfellow Ave.
Worthington, OH 43085

Master Mineral Holdings II, L.P.
P.O. Box 10886
Midland, TX 79702

Diana L. McKinney
275 Skyline Dr.
Moundsville, WV 26041

Potomac Mineral Group LLC
615 Washington Rd. Ste 201
Pittsburgh, PA 15228

Patty L. Rine
801 Benton St.
Apt. 2204
Searcy, AR 72143

Cynthia Jean Wilson
1709 Bennis Church Place
Virginia Beach, VA 23455

Betty Bryner
P.O. Box 270
Bruceeton Mills, WV 26525

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47 05 * 02251

Betty Wilkinson
9271 Barn Swallow Lane
Marshall, VA 20115

Carl Caldwell
501 Morgantown Avenue
Apartment 201
Barnesville, OH 43713

Doris Garrison
28 Hickory Avenue
Moundsville, WV 26041

Crystal Thomas
1402 Sixth Street
Moundsville, WV 26041

Arthur Lee Waryck
912 Tomlinson Avenue
Glen Dale, WV 26038

Hiram Vernon Moore
609 Pink Apartment Rd
Davenport, FL 33837

Larry Vernon Moore, Sr.
135 Clover Hill Ln
Newport, VA 24128

Ronald Wayne Moore
434 Moores Ln
New Cumberland, WV 26047

Dennis F. Moore
471 Peal Dr, 104
Proctor, WV 26055

Anthony Moore
215 Ash Avenue
Moundsville, WV 26041

Freda L. Campbell
307 Elizabeth Street
Glen Dale, WV 26038

James D. Yocum
5200 NW 31st Avenue
Apartment B 38
Ft. Lauderdale, FL 33309

Joan A. Gieger
621 Pepperdine Avenue
Edmond, OK 33013

Joyce Elaine Cone
1831 Old Westminster Pike
Finksburg, MD 21048

Mary W. Holmes
197 Spindle Lane
Moundsville, WV 26041

Marilyn Sue Reilly
197 Spindle Lane
Moundsville, WV 26041

Freddie C. White
RR 1 Box 59A
Glen Easton, WV 26039

Sharon Diane Jahn
2802 Spindle Lane
Bowie, MD 20715

Joyce A. Wallace
4107 Shoemaker Hollow Road
New Philadelphia, OH 44663

Tamala Schollick
112 Jennifer Drive
Moundsville, WV 26041

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WW-6A5
(1/12)

Operator Well No. Hudson S-411M
4705 02251

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: 06/21/2019 **Date Permit Application Filed:** 06/21/2019

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: CNX Land Resources, LLC Attn: Casey Saunders (Well Pad)
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

Name: Robert L. and Melinda J. White (Access Road)
Address: 129 Freddie's Lane
Glen Easton, WV 26039

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:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>4,408,814.32</u>
County:	<u>Marshall</u>		Northing:	<u>528,008.05</u>
District:	<u>Meade</u>	Public Road Access:	<u>Roberts Ridge Road (CR 21)</u>	
Quadrangle:	<u>Glen Easton 7.5'</u>	Generally used farm name:	<u>CNX Land, LLC</u>	
Watershed:	<u>Grave Creek (HUC 10)</u>			

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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Tug Hill Operating, LLC
Telephone: 724-749-8388
Email: amiller@tug-hill-op.com

Address: 380 Southpointe Boulevard, Plaza II, Suite 200
Canonsburg, PA 15317
Facsimile: 724-338-2030

Oil and Gas Privacy Notice:

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

June 21, 2019

Byrd E. White, III
Secretary of Transportation

Jimmy Wriston, P. E.
Deputy Secretary/
Acting Commissioner

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

Subject: DOH Permit for the Hudson Pad, Marshall County
Hudson S-4HM Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2019-0353 issued to Tug Hill Operating for access to the State Road for a well site located off of Marshall County Route 21 SLS.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a DISTRICT WIDE 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 October 1, 2018.

Very Truly Yours,

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

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Environmental Protection

Cc: Amy Miller
Tug Hill Operating
CH, OM, D-6
File



TUG HILL

47 05 - 02251

PLANNED ADDITIVES TO BE USED IN FRACTURING OR STIMULATION

Hudson Pad

PRODUCT NAME:	CHEMICAL DESCRIPTION:	PRODUCT USE:	HAZARDOUS COMPONENT:
GBW-20C	Hemicellulase Breaker	Breaker - Water	None
ALPHA 1427		Biocide	Glutaraldehyde – CAS#000111-30-8 Quaternary ammonium chloride CAS# 007173-51-5 Alky dimethyl benzyl ammonium Chloride (C12-16) – CAS#068424-85-1 Ethanol – CAS# 000064-17-5 Water – CAS# 007732-18-5
FRAC SAND	Silica Sand (various Mesh sizes)	Proppant	Crystalline silica (quartz) CAS# 14808-60-7
S-8C, Sand	Silica Sand (100 mesh)	Sand	Silica – CAS# 14808-60-7
GW-3LDF		Gellant - Water	Petroleum Distillate Blend – Proprietary, (Not Associated with Diesel Fuel) Guar gum – CAS# 009000-30-0
FRW-18		Friction Reducer	Hydrotreated light distillate CAS# 064742-47-8
Scaletrol		Scale Inhibitor	Ethylene glycol – CAS# 000107-21-1 Diethylene glycol – CAS# 000111-46-6

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APPROVED
WVDEP OOG

3/22 11/4/2019

Hudson Well Site
Site Design, Construction Plan, &
Erosion and Sediment Control Plans
Tug Hill Operating
Marshall County
Meade District
Latitude 39.82881036°
Longitude -80.67262857°
Grave Creek Watershed

Pertinent Site Information
Hudson Well Site
Emergency Number 304-845-1920
Meade District, Marshall County, WV
Watershed: Grave Creek Watershed
Tug Hill Contact Number: 1-817-612-1400

Property Owner Information - Hudson Well Site

Owner	Acres	Year	Year	Year	Year	Year	Year
WV State	1.1	2011	2012	2013	2014	2015	2016
WV State	0.1	2011	2012	2013	2014	2015	2016
WV State	0.1	2011	2012	2013	2014	2015	2016
WV State	0.1	2011	2012	2013	2014	2015	2016
WV State	0.1	2011	2012	2013	2014	2015	2016
WV State	0.1	2011	2012	2013	2014	2015	2016
WV State	0.1	2011	2012	2013	2014	2015	2016
WV State	0.1	2011	2012	2013	2014	2015	2016
WV State	0.1	2011	2012	2013	2014	2015	2016
WV State	0.1	2011	2012	2013	2014	2015	2016

Exhibit A: Final Design: Issue for Permitting



Area Road

Area Road	NC	PA	MD	VA	OH	WV	Other
Area Road	1.1	0.1	0.1	0.1	0.1	0.1	0.1
Area Road	1.1	0.1	0.1	0.1	0.1	0.1	0.1
Area Road	1.1	0.1	0.1	0.1	0.1	0.1	0.1
Area Road	1.1	0.1	0.1	0.1	0.1	0.1	0.1
Area Road	1.1	0.1	0.1	0.1	0.1	0.1	0.1
Area Road	1.1	0.1	0.1	0.1	0.1	0.1	0.1
Area Road	1.1	0.1	0.1	0.1	0.1	0.1	0.1
Area Road	1.1	0.1	0.1	0.1	0.1	0.1	0.1
Area Road	1.1	0.1	0.1	0.1	0.1	0.1	0.1
Area Road	1.1	0.1	0.1	0.1	0.1	0.1	0.1

Hudson Well Site Quantities

Item	Quantity	Unit	Notes
Excavation	1,100	cu yd	
Gravel	1,100	cu yd	
Concrete	1,100	cu yd	
Reinforcing Steel	1,100	lbs	
Formwork	1,100	sq ft	
Other	1,100	various	
Total	1,100	various	

Site Plan

Section	Area	Area	Area	Area	Area
Section 1	1.1	1.1	1.1	1.1	1.1
Section 2	1.1	1.1	1.1	1.1	1.1
Section 3	1.1	1.1	1.1	1.1	1.1
Section 4	1.1	1.1	1.1	1.1	1.1
Section 5	1.1	1.1	1.1	1.1	1.1
Section 6	1.1	1.1	1.1	1.1	1.1
Section 7	1.1	1.1	1.1	1.1	1.1
Section 8	1.1	1.1	1.1	1.1	1.1
Section 9	1.1	1.1	1.1	1.1	1.1
Section 10	1.1	1.1	1.1	1.1	1.1
Section 11	1.1	1.1	1.1	1.1	1.1
Section 12	1.1	1.1	1.1	1.1	1.1
Section 13	1.1	1.1	1.1	1.1	1.1
Section 14	1.1	1.1	1.1	1.1	1.1
Section 15	1.1	1.1	1.1	1.1	1.1
Section 16	1.1	1.1	1.1	1.1	1.1
Section 17	1.1	1.1	1.1	1.1	1.1
Section 18	1.1	1.1	1.1	1.1	1.1
Section 19	1.1	1.1	1.1	1.1	1.1
Section 20	1.1	1.1	1.1	1.1	1.1
Section 21	1.1	1.1	1.1	1.1	1.1
Section 22	1.1	1.1	1.1	1.1	1.1
Section 23	1.1	1.1	1.1	1.1	1.1
Section 24	1.1	1.1	1.1	1.1	1.1
Section 25	1.1	1.1	1.1	1.1	1.1
Section 26	1.1	1.1	1.1	1.1	1.1
Section 27	1.1	1.1	1.1	1.1	1.1
Section 28	1.1	1.1	1.1	1.1	1.1
Section 29	1.1	1.1	1.1	1.1	1.1
Section 30	1.1	1.1	1.1	1.1	1.1
Section 31	1.1	1.1	1.1	1.1	1.1
Section 32	1.1	1.1	1.1	1.1	1.1
Section 33	1.1	1.1	1.1	1.1	1.1
Section 34	1.1	1.1	1.1	1.1	1.1
Section 35	1.1	1.1	1.1	1.1	1.1
Section 36	1.1	1.1	1.1	1.1	1.1
Section 37	1.1	1.1	1.1	1.1	1.1
Section 38	1.1	1.1	1.1	1.1	1.1
Section 39	1.1	1.1	1.1	1.1	1.1
Section 40	1.1	1.1	1.1	1.1	1.1
Section 41	1.1	1.1	1.1	1.1	1.1
Section 42	1.1	1.1	1.1	1.1	1.1
Section 43	1.1	1.1	1.1	1.1	1.1
Section 44	1.1	1.1	1.1	1.1	1.1
Section 45	1.1	1.1	1.1	1.1	1.1
Section 46	1.1	1.1	1.1	1.1	1.1
Section 47	1.1	1.1	1.1	1.1	1.1
Section 48	1.1	1.1	1.1	1.1	1.1
Section 49	1.1	1.1	1.1	1.1	1.1
Section 50	1.1	1.1	1.1	1.1	1.1
Section 51	1.1	1.1	1.1	1.1	1.1
Section 52	1.1	1.1	1.1	1.1	1.1
Section 53	1.1	1.1	1.1	1.1	1.1
Section 54	1.1	1.1	1.1	1.1	1.1
Section 55	1.1	1.1	1.1	1.1	1.1
Section 56	1.1	1.1	1.1	1.1	1.1
Section 57	1.1	1.1	1.1	1.1	1.1
Section 58	1.1	1.1	1.1	1.1	1.1
Section 59	1.1	1.1	1.1	1.1	1.1
Section 60	1.1	1.1	1.1	1.1	1.1
Section 61	1.1	1.1	1.1	1.1	1.1
Section 62	1.1	1.1	1.1	1.1	1.1
Section 63	1.1	1.1	1.1	1.1	1.1
Section 64	1.1	1.1	1.1	1.1	1.1
Section 65	1.1	1.1	1.1	1.1	1.1
Section 66	1.1	1.1	1.1	1.1	1.1
Section 67	1.1	1.1	1.1	1.1	1.1
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Section 69	1.1	1.1	1.1	1.1	1.1
Section 70	1.1	1.1	1.1	1.1	1.1
Section 71	1.1	1.1	1.1	1.1	1.1
Section 72	1.1	1.1	1.1	1.1	1.1
Section 73	1.1	1.1	1.1	1.1	1.1
Section 74	1.1	1.1	1.1	1.1	1.1
Section 75	1.1	1.1	1.1	1.1	1.1
Section 76	1.1	1.1	1.1	1.1	1.1
Section 77	1.1	1.1	1.1	1.1	1.1
Section 78	1.1	1.1	1.1	1.1	1.1
Section 79	1.1	1.1	1.1	1.1	1.1
Section 80	1.1	1.1	1.1	1.1	1.1
Section 81	1.1	1.1	1.1	1.1	1.1
Section 82	1.1	1.1	1.1	1.1	1.1
Section 83	1.1	1.1	1.1	1.1	1.1
Section 84	1.1	1.1	1.1	1.1	1.1
Section 85	1.1	1.1	1.1	1.1	1.1
Section 86	1.1	1.1	1.1	1.1	1.1
Section 87	1.1	1.1	1.1	1.1	1.1
Section 88	1.1	1.1	1.1	1.1	1.1
Section 89	1.1	1.1	1.1	1.1	1.1
Section 90	1.1	1.1	1.1	1.1	1.1
Section 91	1.1	1.1	1.1	1.1	1.1
Section 92	1.1	1.1	1.1	1.1	1.1
Section 93	1.1	1.1	1.1	1.1	1.1
Section 94	1.1	1.1	1.1	1.1	1.1
Section 95	1.1	1.1	1.1	1.1	1.1
Section 96	1.1	1.1	1.1	1.1	1.1
Section 97	1.1	1.1	1.1	1.1	1.1
Section 98	1.1	1.1	1.1	1.1	1.1
Section 99	1.1	1.1	1.1	1.1	1.1
Section 100	1.1	1.1	1.1	1.1	1.1

Project Contacts

Role	Name	Phone	Email
Project Manager	John Doe	304-123-4567	john.doe@tughill.com
Site Supervisor	Jane Smith	304-123-4567	jane.smith@tughill.com
Inspector	Mike Johnson	304-123-4567	mike.johnson@wvdep.gov
Permitting Specialist	Sarah Lee	304-123-4567	sarah.lee@wvdep.gov

Environmental

WVDEP (West Virginia Department of Environmental Protection) is the lead agency for this project. All activities must comply with the Clean Water Act and the National Pollutant Discharge Elimination Act (NPDES). The project is located in the Grave Creek Watershed, which is a designated trout stream. The project will require a permit from WVDEP to discharge any stormwater runoff.

Miss Utility of West Virginia

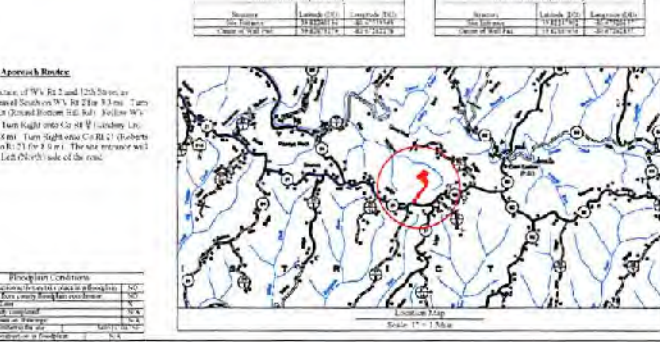
Call before you dig. 1-877-444-4444

Approach Road

From the intersection of WV Rt 2 and US 220, travel South on WV Rt 2 for 1.5 miles. Turn Left onto WV Rt 2 and travel South on WV Rt 2 for 0.5 miles. Turn Right onto WV Rt 2 and travel South on WV Rt 2 for 0.5 miles. The site is located on the West side of WV Rt 2.

Proportion Conditions

Condition	Value
Proportion	1" = 1 Mile
Scale	1" = 1 Mile



Site Location Map

The site is located in the eastern part of West Virginia, near the border with Maryland. The map shows the site location relative to major roads and towns in the area.

Site Location Description

The site is located on the West side of WV Rt 2, approximately 1.5 miles South of the intersection of WV Rt 2 and US 220. The site is situated on a hillside overlooking the Grave Creek Watershed. The site is currently undeveloped and is surrounded by forested land.

Site Location Map

The site is located in the eastern part of West Virginia, near the border with Maryland. The map shows the site location relative to major roads and towns in the area.

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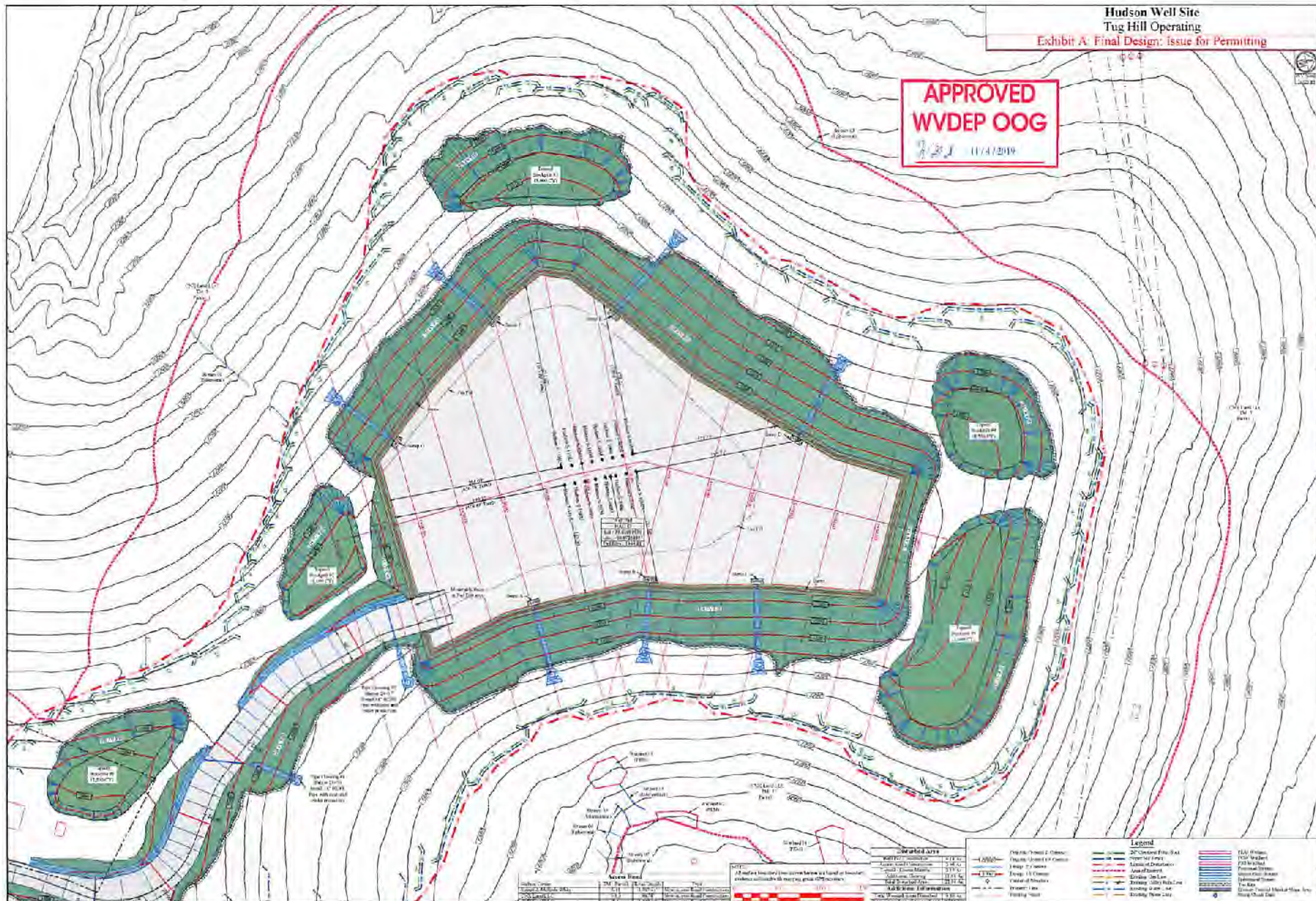
Sheet	Description
1	Cover Sheet
2	Schedule of Quantities
3	Site Notes
4	Pre-Construction Site Conditions
5	Site Soil Map
6	Clearing Exhibit
7	Overall Plan View
8	Site Plan View
9	Topography Exhibit
10-17	Site Plan
18-19	Stormwater Management - Well Pad
20-21	Stormwater Management - Access Road
22-23	Construction Exhibit
24-25	Landowner Data and Area Photos
26-27	Site Elevation
28-29	Excavation Exhibit
30-31	Excavation and Sediment Control Details
32-33	Access Road Details
34-35	Site Details

TUG HILL OPERATING

Hudson Well Site
Meade District, Marshall County, WV

Date: 03/20/19
Scale: As Shown
Designed: JLD
Drawn: JLD
Sheet: 1 of 1

APPROVED
WVDEP OOG
11/7/2019



TUG HILL OPERATING

FIELD DOCUMENT
PREPARED BY
DATE
DATE

K&S CONSULTANTS

Hudson Well Site
Marshall County, WV

11/7/2019
11/7/2019