



west virginia department of environmental protection

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

Jim Justice , Governor  
Austin Caperton , Cabinet Secretary  
www.dep.wv.gov

Wednesday, December 20, 2017  
WELL WORK PERMIT  
Horizontal 6A / New Drill

ASCENT RESOURCES-MARCELLUS, LLC  
3501 NW 63RD STREET

OKLAHOMA CITY, OK 73116

Re: Permit approval for HOGE S GRN WZ 6H  
47-103-03210-00-00

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: HOGE S GRN WZ 6H  
Farm Name: STATE OF WV PUBLIC LD CORP. DEPT. OF COMM. LBR & EN  
U.S. WELL NUMBER: 47-103-03210-00-00  
Horizontal 6A / New Drill  
Date Issued: 12/20/2017

Promoting a healthy environment.

12/22/2017

# PERMIT CONDITIONS

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

## CONDITIONS

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

## PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov).



west virginia department of environmental protection

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

Jim Justice, Governor  
Austin Caperton, Cabinet Secretary  
www.dep.wv.gov

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

TO: Ascent Resources – Marcellus, LLC  
3501 NW 63<sup>rd</sup> Street  
Oklahoma City, OK 73116

DATE: December 8, 2017  
ORDER NO.: 2017-W-10

**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 Ascent Resources – Marcellus, LLC (hereinafter “Ascent” 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. Ascent is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 3501 NW 63rd Street, Oklahoma City, Oklahoma.
3. On August 17, 2017, Ascent submitted well work permit applications identified as API#s 47-103-3206 and 47-103-3207. On September 11, 2017, Ascent submitted well work permit applications identified as API#s 47-103-3208, 47-103-3209 and 47-103-3210. The five proposed wells are to be located on the Hoge GRN WZ Pad in Green District of Wetzel County, West Virginia.
4. On September 11, 2017 Ascent requested a waiver for Wetlands 3 and 5 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#s 47-103-3206, 47-103-3207, 47-103-3208, 47-103-3209 and 47-103-3210.

## CONCLUSIONS OF LAW

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

## ORDER

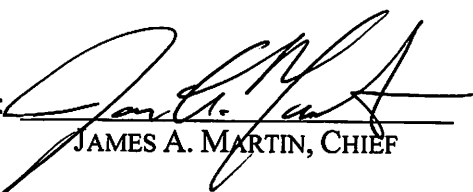
West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetland 3 and 5 from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-103-3206, 47-103-3207, 47-103-3208, 47-103-3209 and 47-103-3210. The Office of Oil and Gas hereby **ORDERS** that Ascent shall meet the following site construction and operational requirements for the Hoge GRN WZ 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 3 shall have thirty two inch (32”) compost filter sock and super silt fencing to prevent sediment from reaching the wetlands.
- d. Wetland 5 shall have super silt fencing to prevent sediment from reaching the wetlands from the access road.
- e. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- f. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- g. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- h. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- i. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- j. 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;
- k. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- l. All records from inspections shall be maintained on site for the life of the project and be available upon request.

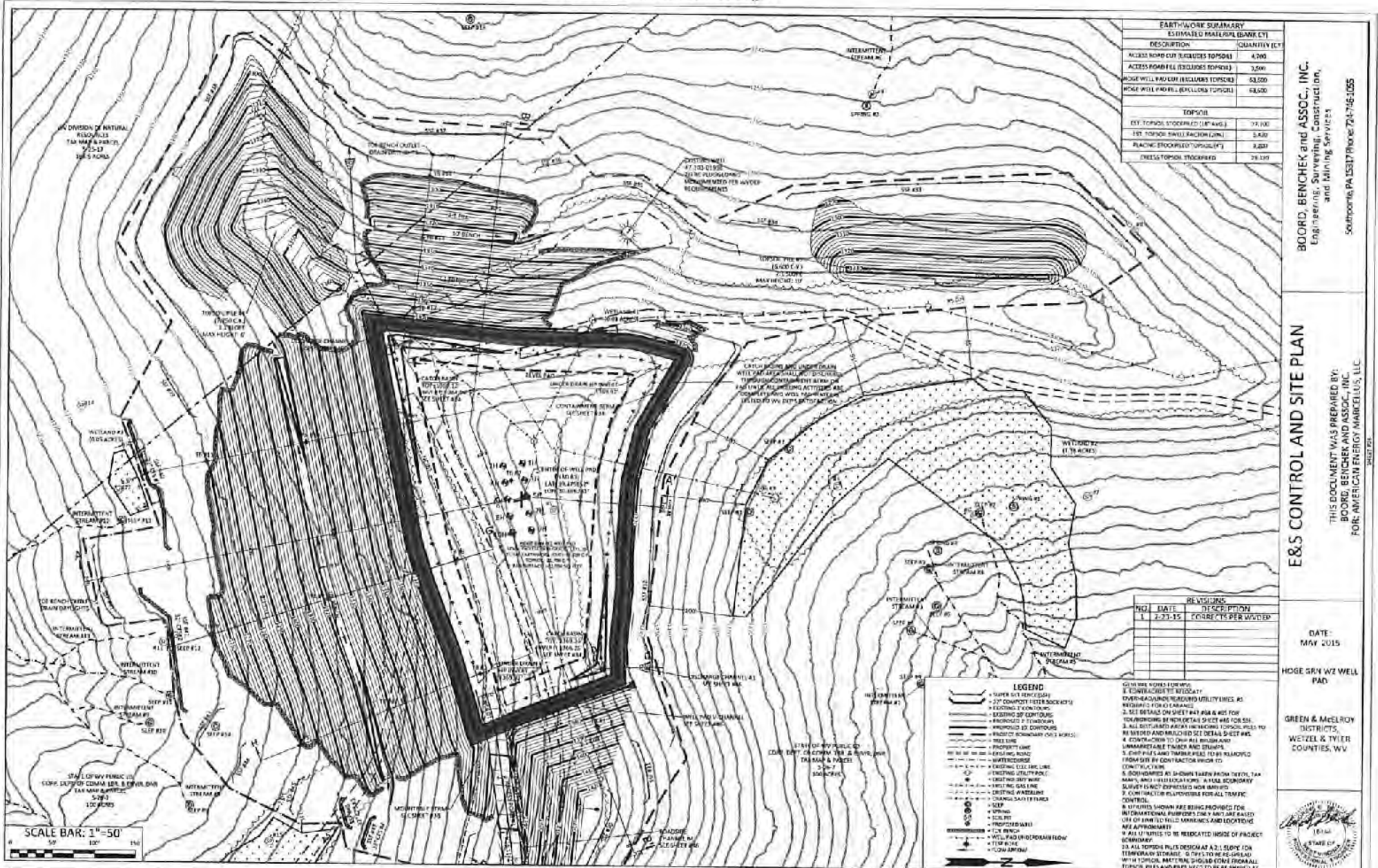
Thus ORDERED, the 8th day of December, 2017.

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

Wetland Waiver - Exhibit "A" Page 1



**EARTHWORK SUMMARY**  
ESTIMATED MATERIALS (CUBIC YD)

DESCRIPTION	QUANTITY (CY)
ACCESS FROM CUT EXCLUDES TOPSOIL	4,295
ACCESS FROM FILL EXCLUDES TOPSOIL	3,500
HOSE W/LL FACILITY EXCLUDES TOPSOIL	63,550
HOSE W/LL FILL EXCLUDES TOPSOIL	68,000

TOPSOIL	
EXT. TOPSOIL STOCKPILS (10" MAX)	74,100
INT. TOPSOIL BINLS (6" MAX)	3,600
PLACING STOCKPILES (TOPSOIL)	9,000
FINISH TOPSOIL STOCKPILS	24,100

**BOORD, BENCHEK and ASSOC., INC.**  
Engineering, Surveying, Construction,  
and Mining Services  
Souderton, PA 15317 Phone: 717-465-1055

**E&S CONTROL AND SITE PLAN**

THIS DOCUMENT WAS PREPARED BY:  
**BOORD, BENCHEK AND ASSOC., INC.**  
FOR: AMERICAN ENERGY MARKETUS, LLC  
SHEET #1

**REVISIONS**

NO.	DATE	DESCRIPTION
1	2-23-15	FOR SET PER W/LL PAD

DATE: MAY 2015

HOSE GRN WZ WELL PAD

GREEN & McELROY  
SOUTH CITY,  
WETZEL & TWEED  
COUNTIES, WV

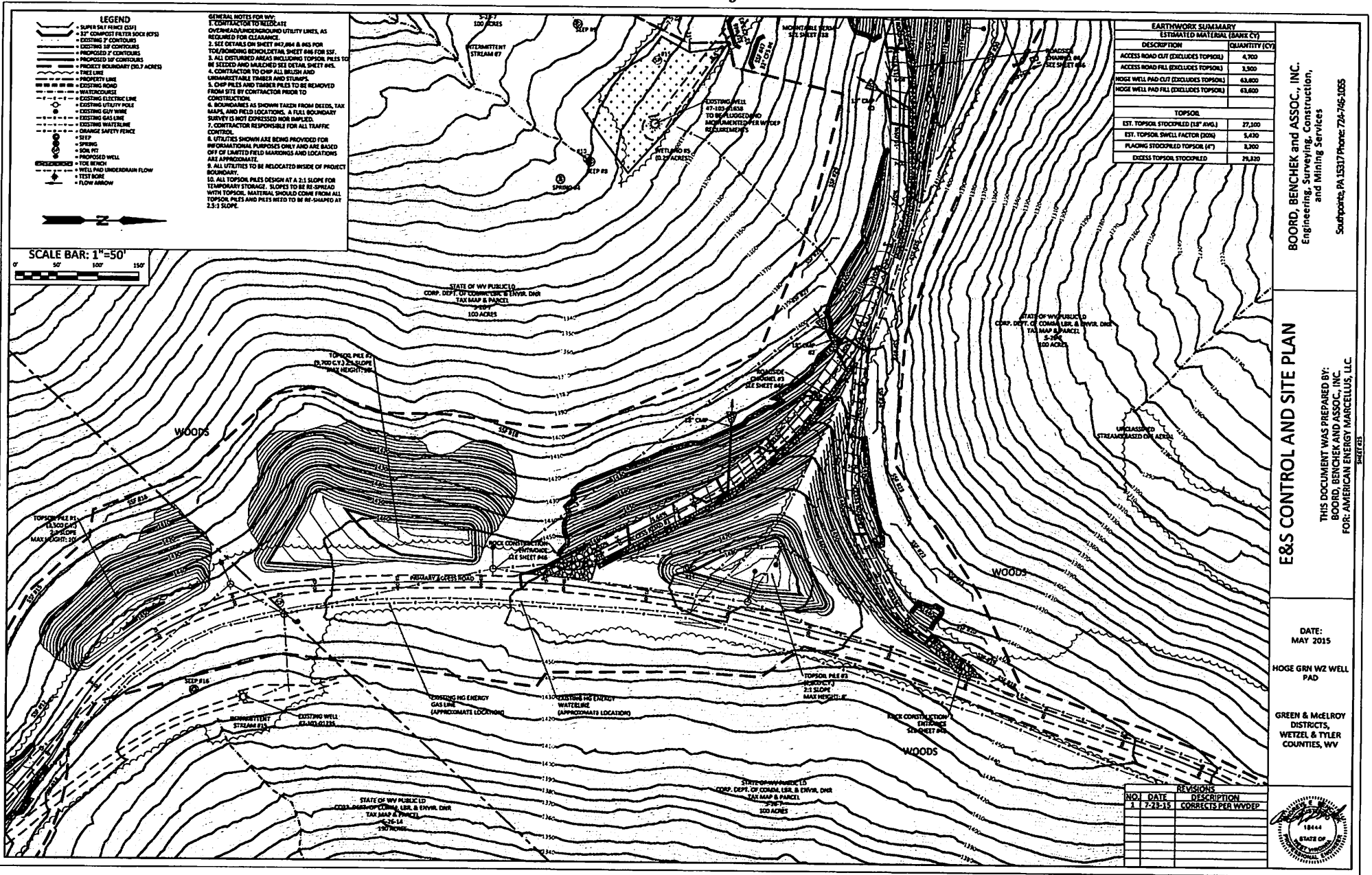


- LEGEND**
- SUPER CUT FENCE (S&P)
  - 2" COMPACT FIBER STOCKPILE
  - EXISTING TYPICAL ROAD
  - EXISTING 20' CONTOUR
  - PROPOSED 2' CONTOUR
  - PROPOSED 10' CONTOUR
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1. CONTRACTOR TO VERIFY ALL OVERLAPPING EXISTING UTILITY LINES AS NECESSARY FOR CHANGE.
2. SET DETAILS ON SHEET #47 AND #48 FOR IDENTIFYING BY NON-DETAILED SHEET AND FOR SET.
3. ALL DISTANCE DATA ON WORKING TOPICAL PLOTS TO BE BARRED AND MATCHED SEE DETAIL SHEET #48.
4. CONTRACTOR TO SHOW ALL BRUSH AND LIMBER REMAINING THINER AND STRIPPER.
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SCALE BAR: 1"=50'





**LEGEND**

- SUPPLY PIPE (24" DIA)
- 24" CONCRETE PILE (24" DIA)
- EXISTING 12" CONTOUR
- PROPOSED 12" CONTOUR
- PROPOSED 24" CONTOUR
- PROPOSED 36" CONTOUR
- PROPOSED 48" CONTOUR
- PROPOSED 60" CONTOUR
- PROPOSED 72" CONTOUR
- PROPOSED 84" CONTOUR
- PROPOSED 96" CONTOUR
- PROPOSED 108" CONTOUR
- PROPOSED 120" CONTOUR
- PROPOSED 132" CONTOUR
- PROPOSED 144" CONTOUR
- PROPOSED 156" CONTOUR
- PROPOSED 168" CONTOUR
- PROPOSED 180" CONTOUR
- PROPOSED 192" CONTOUR
- PROPOSED 204" CONTOUR
- PROPOSED 216" CONTOUR
- PROPOSED 228" CONTOUR
- PROPOSED 240" CONTOUR
- PROPOSED 252" CONTOUR
- PROPOSED 264" CONTOUR
- PROPOSED 276" CONTOUR
- PROPOSED 288" CONTOUR
- PROPOSED 300" CONTOUR
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- PROPOSED 336" CONTOUR
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- PROPOSED 372" CONTOUR
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**GENERAL NOTES FOR WVE:**

1. CONTRACTOR TO RELOCATE OVERHEAD/UNDERGROUND UTILITY LINES, AS REQUIRED FOR CLEARANCE.
2. SEE DETAILS ON SHEET #10/24 & #15 FOR TOP/POUNDING BENCH/LEISTAL SHEET #16 FOR 33F.
3. ALL DISTURBED AREAS INCLUDING TOPSOIL PILES TO BE SEIZED AND MATCHED SEE DETAIL SHEET #15.
4. CONTRACTOR TO CHIP ALL BRUSH AND UNRETRACTABLE TIMBER AND STUMPS.
5. CHIP PILES AND TIMBER PILES TO BE REMOVED FROM SITE BY CONTRACTOR PRIOR TO CONSTRUCTION.
6. BOUNDARIES AS SHOWN TAKEN FROM DEEDS, TAX MAPS, AND FIELD LOCATIONS. A FULL BOUNDARY SURVEY IS NOT EXPRESSED NOR IMPLIED.
7. CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL.
8. UTILITIES SHOWN ARE BEING PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND ARE BASED ON OFF OF LIMITED FIELD MARKINGS AND LOCATIONS ARE APPROXIMATE.
9. ALL UTILITIES TO BE RELOCATED INSIDE OF PROJECT BOUNDARY.
10. ALL TOPSOIL PILES DESIGN AT A 2:1 SLOPE FOR TEMPORARY STORAGE. SLOPES TO BE RE-SPEARED WITH TOPSOIL. MATERIAL SHOULD COME FROM ALL TOPSOIL PILES AND PILES NEED TO BE RE-SHAPED AT 2:1 SLOPE.

**EARTHWORK SUMMARY**

DESCRIPTION	QUANTITY (CY)
ACCESS ROAD CUT (EXCLUDES TOPSOIL)	4,700
ACCESS ROAD FILL (EXCLUDES TOPSOIL)	3,900
HOGGE WELL PAD CUT (EXCLUDES TOPSOIL)	63,600
HOGGE WELL PAD FILL (EXCLUDES TOPSOIL)	63,600
<b>TOPSOIL</b>	
EST. TOPSOIL STOCKPILES (21" AVEL)	27,300
EST. TOPSOIL SWELL FACTOR (20%)	5,470
PLACING STOCKPILED TOPSOIL (47)	8,200
<b>EXCESS TOPSOIL STOCKPILED</b>	<b>76,820</b>

**BOARD, BENCHEK and ASSOC., INC.**  
 Engineering, Surveying, Construction,  
 and Mining Services  
 Scranton, PA 15137 Phone: 724-745-1055

**E&S CONTROL AND SITE PLAN**

THIS DOCUMENT WAS PREPARED BY:  
 BOARD, BENCHEK AND ASSOC., INC.  
 FOR: AMERICAN ENERGY MARCELLUS, LLC

DATE:  
 MAY 2015

HOGGE GRN WZ WELL  
 PAD

GREEN & McELROY  
 DISTRICTS,  
 WETZEL & TYLER  
 COUNTIES, WV

**REVISIONS**

NO.	DATE	DESCRIPTION
1	7-28-15	CORRECTS PER WVDDEP



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

1) Well Operator: Ascent Resources-Marcellus 494514693 Wetzel Green Center Point  
Operator ID County District Quadrangle

2) Operator's Well Number: Hoge S GRN WZ 4H Well Pad Name: Hoge GRN WZ

3) Farm Name/Surface Owner: WV DNR Public Lands Corp Public Road Access: CR 13/8

4) Elevation, current ground: 1380' Elevation, proposed post-construction: 1371.25'

5) Well Type (a) Gas  Oil  Underground Storage \_\_\_\_\_

Other \_\_\_\_\_

(b) If Gas Shallow  Deep \_\_\_\_\_

Horizontal

6) Existing Pad: Yes or No No *DMH 12/14/17*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):  
Marcellus, Approximate TVD 7317', approximate thickness 50', +/- 4600 psi

8) Proposed Total Vertical Depth: 7352'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 19400'

11) Proposed Horizontal Leg Length: 11992'

12) Approximate Fresh Water Strata Depths: 472'

13) Method to Determine Fresh Water Depths: Based on drilling history in nearby wells

14) Approximate Saltwater Depths: 970'

15) Approximate Coal Seam Depths: 1162'

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

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

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

Depth: \_\_\_\_\_

Seam: \_\_\_\_\_

Owner: \_\_\_\_\_

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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	20"	New	J-55	94#	100'	100'	330, CTS
Fresh Water	13-3/8"	New	J-55	54.5#	600'	600'	320, CTS
Coal							
Intermediate	9-5/8"	New	J-55	36#	3490'	3490'	1400, CTS
Production	5-1/2"	New	P-110	20#	19400'	19400'	4375
Tubing	2-7/8"	New	N-80	4.7#			
Liners							

*DWH 12/14/17*

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Max. Associated Surface Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	26"	0.438	2110	50	Class A	1.2
Fresh Water	13-3/8"	17-1/2"	0.38	2740	600	Class A	1.2
Coal							
Intermediate	9-5/8"	12-1/4"	0.395	3520	1500	Class A	Tail 1.27, Lead 1.51
Production	5-1/2"	8-3/4"	0.361	12640	5000	Premium H50 50 Poz H	Tail 1.27, Lead 1.51
Tubing	2-7/8"	4.778"	0.19	11100			
Liners							

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**PACKERS**

Kind:			
Sizes:			
Depths Set:			

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

The well will be spud using a conductor rig. It will drill down 100' per the casing program. It will set 20" casing and circulate cement back to surface. The conductor rig will move off location, a rig capable of drilling to TD will move on and finish drilling the well. We will drill on air with a tri-cone bit to 600' and set freshwater casing. We will then continue drilling vertically and setting casing per the attached casing program to TD.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate: *DWA 12/14/17*

We plan to hydraulically fracture/stimulate the well utilizing the "slickwater" frac technique. We will plug and perforate through cased hole and frac with an anticipated max pressure that will not exceed 10,000 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 50.7

22) Area to be disturbed for well pad only, less access road (acres): 13.6

23) Describe centralizer placement for each casing string:

Conductor: N/A  
Surface: Centralizer every 3 joints or 120'  
Intermediate: Centralizer every 3 joints or 120'  
Production: Run 1 spiral centralizer every 120' from the first 5.5" long joint to the top of the curve  
Run 1 spiral centralizer every 200' from the top of the curve to surface

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

Conductor: Class A Cement (see attachment for complete description)  
Surface: Class A Cement (see attachment for complete description)  
Intermediate: Class A Cement (see attachment for complete description)  
Productions: Premium H/50-50 Poz H Cement (see attachment for complete description)

25) Proposed borehole conditioning procedures:


The wellbore will be properly circulated at TD of each section until as much of the residual drill cuttings have been removed from the wellbore as possible, residual drilling gas has been circulated out and until the mud and wellbore are both constant and stable. Mud properties will be adjusted if needed. Hole cleaning times may vary from well to well, hole section to hole section.

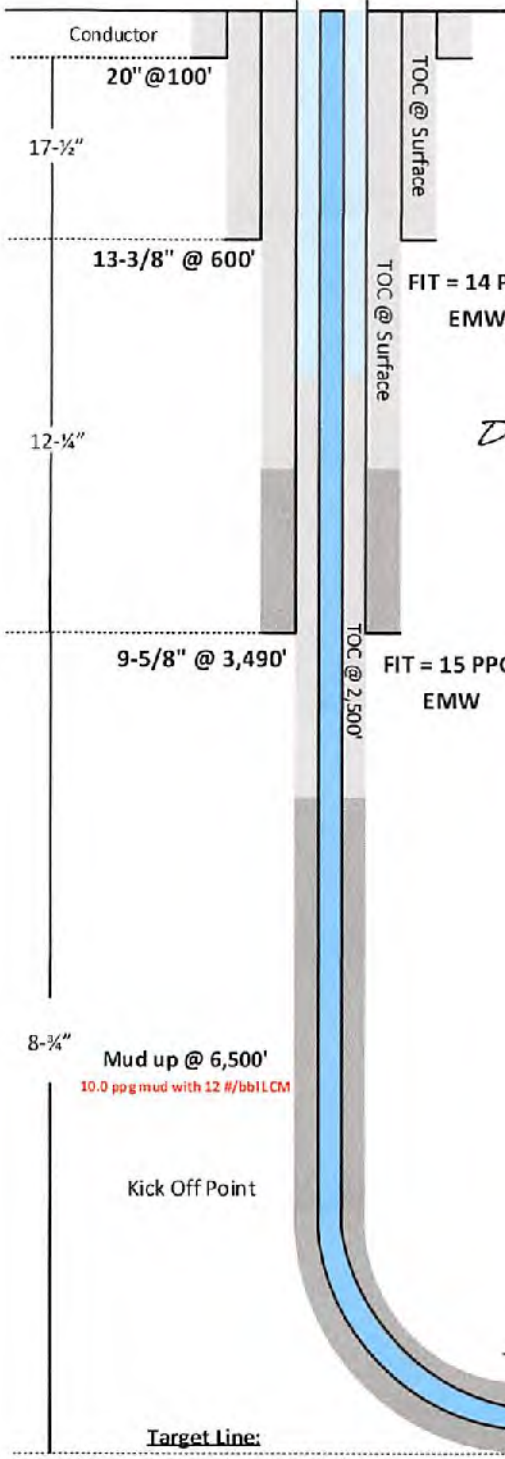
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\*Note: Attach additional sheets as needed.

103-03210

	<b>Hoge S GRN WZ 4H</b>			
	County, State:	Township:	Location:	Formation:
	Wetzel, West Virginia	Grant		Marcellus
	Coordinates:	SHL lat/Long: 39.479715 N, 80.696477 W		RKB / Elevation:
NAD 27	BHL lat/Long:		AFE DC/CWC:	
Rig:	Target Line: 7,352' TVD @ 0° VS, 89.6 Inc, 150 Azi		472'	Property #:
				AFE #:



Interval	Hole size (in)	Size (in)	Weight #/ft	Grade	Conn.	Collapse (PSI)	Burst (PSI)	Depth (ft)	Cost \$/ft
Conductor	26"	20"	-	-	-	-	-	100	-
Surface	17-1/2"	13-3/8"	54.5	J-55	BTC	1,130	2,740	600	36
Intermediate	12-1/4"	9-5/8"	36	J-55	LTC	2,020	3,520	3,490	22
Production	8-3/4"	5-1/2"	20	P-110	ULT-DOX	11,110	12,640	19,400	22

Interval	Slurry	Weight	Ft <sup>3</sup>	Yield	Excess	Cement Top
Conductor	Lead				50%	
	Tail	15.6 ppg	330	1.20 cuft/sk		Surface
Surface	Lead				50%	
	Tail	15.6 ppg	320	1.20 cuft/sk		Surface
Intermediate	Lead	13.5 ppg	250	1.51 cuft/sk	30%	Surface
	Tail	15.3 ppg	1150	1.27 cuft/sk		700
Production	Lead	13.5 ppg	810	1.51 cuft/sk	10%	2500
	Tail	15.3 ppg	3530	1.27 cuft/sk		5500

Formation	TVD	Sub Sea
Freshwater	472	900'
Saltwater	970	402'
Pittsburgh Coal	1162	210'
Big Injun	2447	-1,075'
Big Injun Base	2647	-1,275'
Berea	3019	-1,647'
Gordon	3225	-1,853'
Gordon Base	3291	-1,919'
Middlesex	7057	-5,685'
Geneseo	7195	-5,823'
Tully	7223	-5,851'
Hamilton	7246	-5,874'
Marcellus	7317	-5,945'
Purcell	7332	-5,960'
Lower Marcellus	7334	-5,962'
Basal Marcellus	7345	-5,973'
Onondaga	7367	-5,995'

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8-3/4" Curve and Lateral ————— 5-1/2" Casing @ 19,400'

**Target Line:**  
7,352' TVD @ 0° VS, 89.6° Inc, 150° Azi

AIR INTERVALS					SYNTHETIC OIL BASED MUD INTERVAL									
Interval	Depth (MD)	Rate (cfpm)	Water (bbl/hr)	Foamer (gal/hr)	Interval	Depth (MD)	Weight (#/gal)	Viscosity (sec/qt)	HTHP (ml/30min)	PV (cps)	YP (#/100 ft <sup>2</sup> )	6 RPM	WPS ppm	OWR % by vol
Surface	0' - 600'	>5000	30-50	1/2 - 3/4	Curve	6,500' - 7,716'	10.5 - 13.5	50 - 60	4 - 6	18 - 24	10 - 12	6-9	150K - 180K	75:25 - 70:30
Intermediate	600' - 3490'	>5000	30-50	1/2 - 3/4	Lateral	7,716' - 19,400'	13.5 - 13.7	50 - 60	4 - 6	18 - 24	10 - 12	6-9	150K - 180K	75:25 - 70:30
Vert/Nudge	3,490' - 6,500'	>5000	40-60	3/4 - 1										

12/22/2017

WW-9  
(9/13)

API Number 47 - 103 - 03210  
Operator's Well No. Page 5 GRN WZ 4H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Ascent Resources - Marcellus, LLC OP Code 494514693

Watershed (HUC 10) Fishing Creek Quadrangle Center Point

Elevation 1380' County Wetzel District Green

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: Closed loop system no pits will be used

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number see attached sheet titled UIC Wells and Landfills )
- Reuse (at API Number next anticipated well )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain )

*DWAH 12/14/17*

Will closed loop system be used? If so, describe: yes; see attached sheet titled Closed loop typical description

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air, Freshwater mist, and Synthetic based oil

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

Additives to be used in drilling medium? see attached sheet titled drilling additives

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

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

-Landfill or offsite name/permit number? see attached sheet titled UIC Wells and Landfills

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 [Signature]

Company Official (Typed Name) Ascent Resources - Marcellus, LLC

Company Official Title Regulatory Analyst

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Subscribed and sworn before me this 7 day of August

[Signature] Notary Public

My commission expires 1/23/18



12/22/2017

103-03210

Form WW-9

Operator's Well No. Hoge S GRN WZ 8H

Ascent Resources - Marcellus, LLC

Proposed Revegetation Treatment: Acres Disturbed \_\_\_\_\_ Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch minimum of 2-3 Tons/acre

Seed Mixtures

**Temporary**

**Permanent**

Seed Type lbs/acre

Seed Type lbs/acre

See attached

See attached

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Derek M. Haught

Comments: \_\_\_\_\_

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Title: Oil & Gas Inspector

Date: 12/14/17

Field Reviewed? (  ) Yes (  ) No

12/22/2017

**UIC WELLS and Landfills**

<b><u>Disposal Location</u></b>	<b><u>Type</u></b>	<b><u>Permit No.</u></b>
Wetzel County Landfill –	Landfill	SWF-1021/WV010985
Short Creek Landfill –	Landfill	SWP-1034/WV0109517
Brooke County –	Landfill	SWF-1013/WV0109029
Kemble -	UIC Well	34-119-2-8780-00-00
Elkhead-	UIC Well	34-157-2-5511-00-00
Kent Injection Well	UIC Well	34-119-2-7350-00-00
Moran Well	UIC Well	34-089-2-4412-00-00

*DMH 12/14/17*

**Closed Loop Typical Description**

A series of storage tanks that separate liquids and solids along with screen shakers, hydro cyclones, centrifuges and collection equipment (e.g., vacuum trucks, shale barges) may be on site. The wastes created are minimized and transferred off-site for disposal.

**Drilling Additives**

Air mist system additives are commonly; Drilling Foam, Drilling Soap, and occasionally Shale Stabilizer (KCl).

**Synthetic Oil Based Additives**

The base oil is the main ingredient, and it will run approx. 70% of the fluid volume, water will make up about 25%, the remaining 5% by volume will include a mixture of the following:

- ANCO Gel
- Cottonseed Hulls
- D294
- Anco Bar
- Petrogel 100
- Claytone
- Lime
- Calcium Chloride
- Anco Trol
- Base Oil (Kensol 48H)
- Anco Mul Mod

- Anco Mul OW
- Anco Mul P
- Anco Mul S
- Anco Mul Thin
- Anco Thunder Plug
- Calcium Carbonate
- Cedar Fiber
- LCF Blend
- Mica Fine
- Walnut Shell Med
- Anco Drill A

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**Temporary and Permanent Seed Mix**

250 lbs. /acre

**Mix Details**

Medium red clover	4%
Alsike clover	4%
Birds foot trefoil	5%
Forage tall fescue	45%
Forage perineal rye	20%
Annual rye	11%
Winter wheat	10%

**Straw**

*DMA 12/14/17*

Winter – 3 ton per acre

Summer – 2 ton per acre

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**UIC WELLS and Landfills**

<b><u>Disposal Location</u></b>	<b><u>Type</u></b>	<b><u>Permit No.</u></b>
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**Synthetic Oil Based Additives**

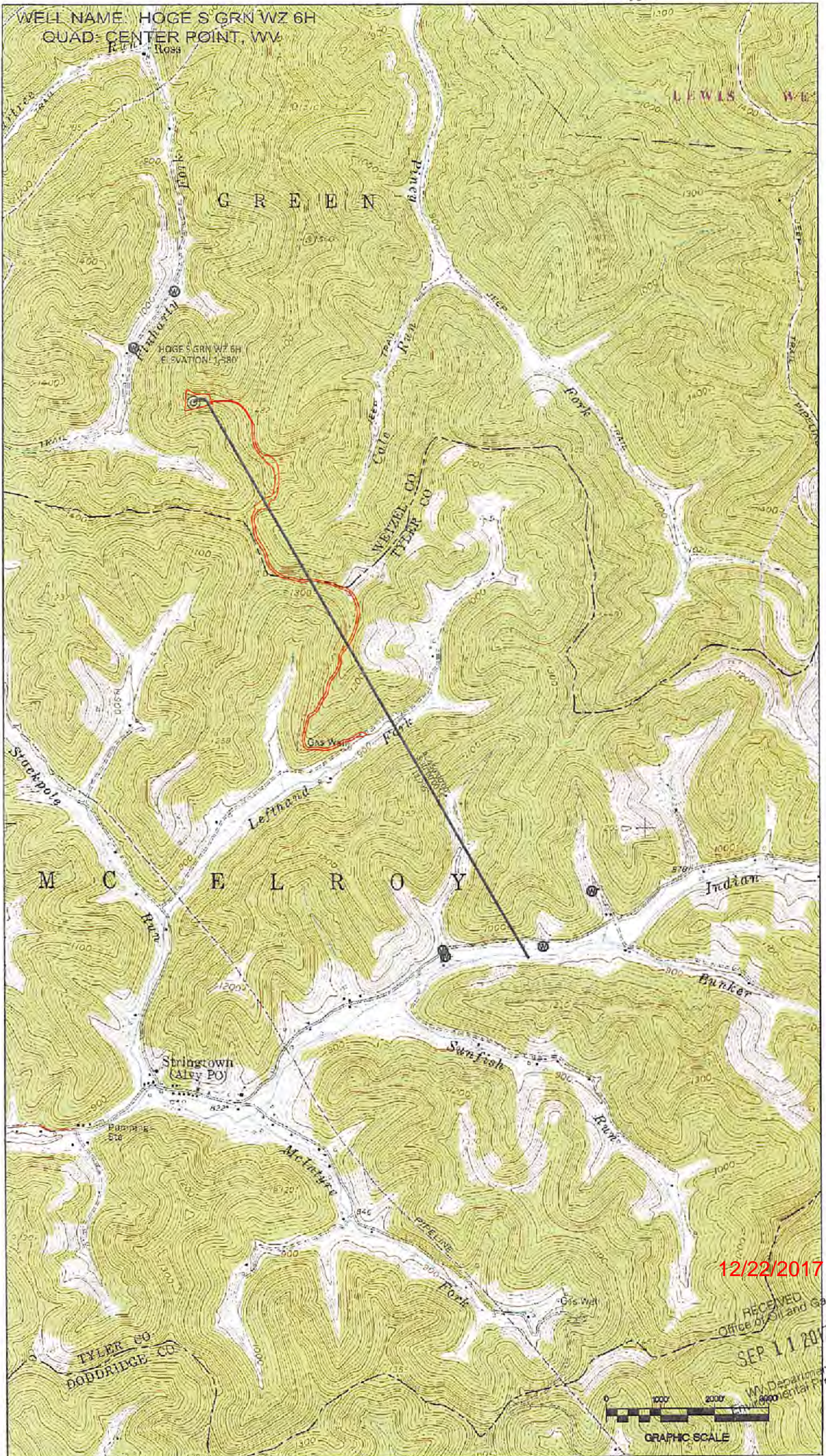
The base oil is the main ingredient, and it will run approx. 70% of the fluid volume, water will make up about 25%, the remaining 5% by volume will include a mixture of the following:

ANCO Gel	Anco Mul OW
Cottonseed Hulls	Anco Mul P
D294	Anco Mul S
Anco Bar	Anco Mul Thin
Petrogel 100	Anco Thunder Plug
Claytone	Calcium Carbonate M
Lime	Cedar Fiber
Calcium Chloride	LCF Blend
Anco Trol	Mica Fine
Base Oil (Kensol 48H)	Walnut Shell Med
Anco Mul Mod	Anco Drill A

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WELL NAME HOGE S GRN WZ 6H  
QUAD CENTER POINT, WV



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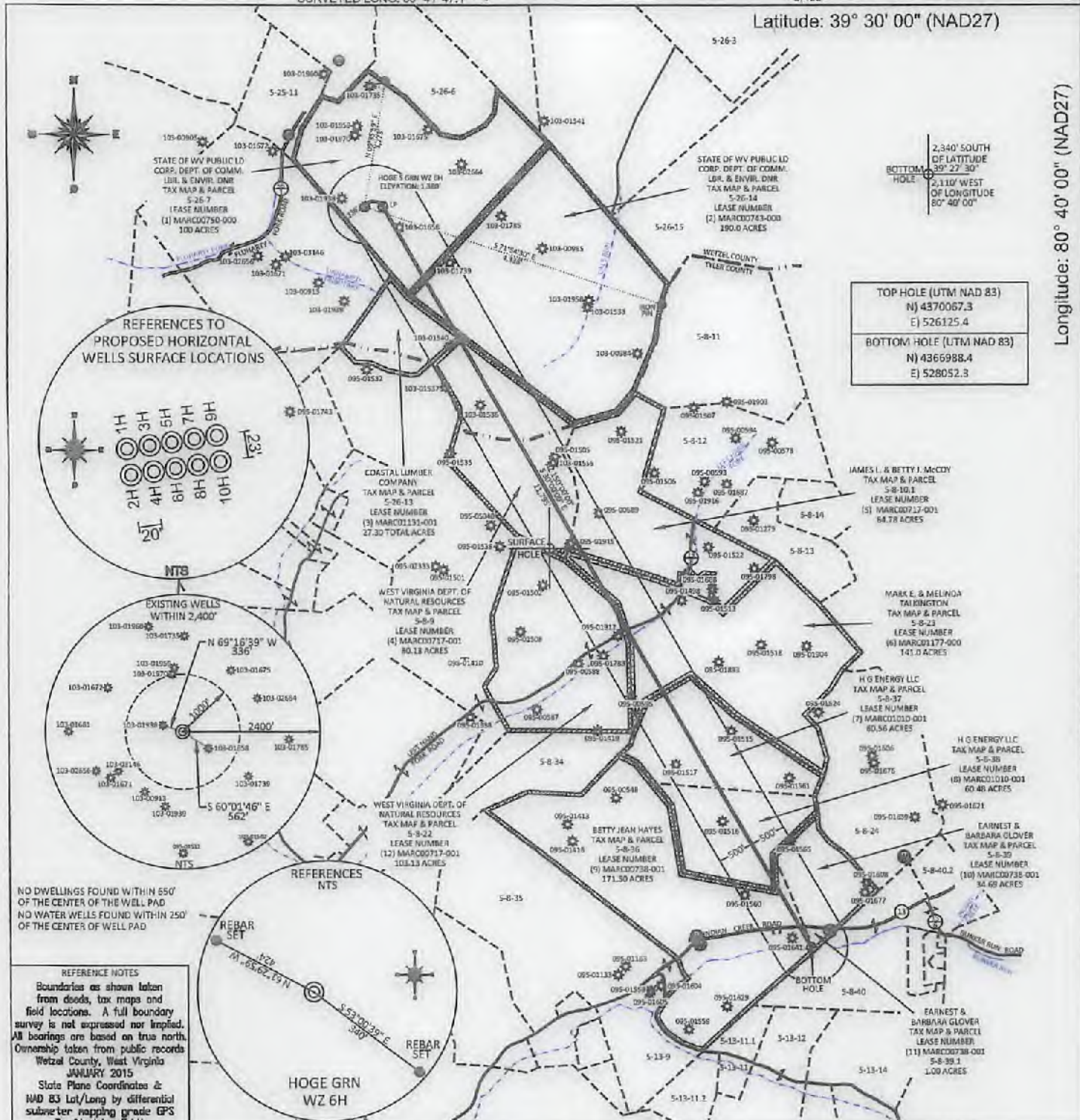
GRAPHIC SCALE

SURFACE HOLE DEC. LONG: 80.696407  
 SURVEYED LONG: 80° 41' 47.1"

8.400

Latitude: 39° 30' 00" (NAD27)

Longitude: 80° 40' 00" (NAD27)



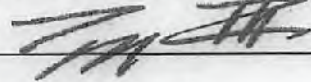
SURFACE HOLE DEC. LAT: 39.479725  
 SURVEYED LAT: 39° 28' 47.0"

TOP HOLE (UTM NAD 83)
N) 4370067.3
E) 526125.4
BOTTOM HOLE (UTM NAD 83)
N) 4366988.4
E) 528052.3

NO DWELLINGS FOUND WITHIN 650' OF THE CENTER OF THE WELL PAD  
 NO WATER WELLS FOUND WITHIN 250' OF THE CENTER OF WELL PAD

REFERENCE NOTES  
 Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records Wetzel County, West Virginia JANUARY 2015  
 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS  
 Drafted by E.A.H.

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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed:   
 L.L.S. #2124: Ernest J. Benchek III



FILE #: AE004  
 DRAWING #: 2515  
 SCALE: PLAT - 1" = 2000'  
 TICK MARK - 1" = 2000'

MINIMUM DEGREE OF ACCURACY: 1/200

PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 WVDOP  
 OFFICE OF OIL & GAS  
 601 57TH STREET  
 CHARLESTON, WV 25304

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

WATERSHED: FISHING CREEK  
 COUNTY/DISTRICT: WETZEL / GREEN

SURFACE OWNER: STATE OF WV PUBLIC LD CORP. DEPT. OF COMM. LBR & ENVIR. DNR  
 OIL & GAS ROYALTY OWNER: STATE OF WV PUBLIC LD CORP. DEPT. OF COMM. LBR & ENVIR. DNR  
 LEASE NUMBERS:

DATE: August 3, 2017  
 OPERATOR'S WELL #: HOGE S GRN WZ 6H  
 API WELL #: 47 103 03210 H6A  
 STATE COUNTY PERMIT

ELEVATION: 1,380' = Current  
 1,371.25' = Proposed

QUADRANGLE: CENTER POINT, WV  
 ACREAGE: 100.00 +/-  
 ACREAGE: 882.07 +/-

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

TARGET FORMATION: MARCELLUS  
 ESTIMATED DEPTH: TVD: 7,352' TMD: 19,400'

WELL OPERATOR: Ascent Resources - Marcellus, LLC  
 ADDRESS: 3501 NW 63rd Street  
 CITY: Oklahoma City STATE: OK ZIP CODE: 73116

DESIGNATED AGENT: Eric B. Gillespie  
 ADDRESS: 100 Star Ave Suite 120  
 CITY: Parkersburg STATE: WV ZIP CODE: 26101

12/22/2017

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

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

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

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Please see attached.				

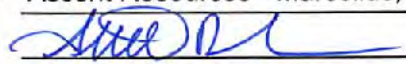
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**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

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: Ascent Resources - Marcellus, LLC  
 By:   
 Its: Regulatory Analyst

103-03210

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:

Ascent Resources - Marcellus, LLC is the record title owner of the leases identified herein. Listed below each lease is the applicable chain of title by which Ascent Resources - Marcellus, LLC was vested with title thereto. Please note, throughout the chain of title, various mergers and name changes occurred between the referenced companies. In several instances, no documentation was filed in the county records evidencing such a merger or name change. In these cases, we've directed your attention to the records of the West Virginia Secretary of State, where said documentation can be found.

Table with columns: Tract, Parcel No., Fee/Lease No., Lessor/Assignor, Lessee/Assignee, Royalty/Instrument, Book/Page. Contains multiple rows of lease information for tracts 1 through 8.

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WV Department of Environmental Protection

12/22/2017

103-0321D

			Pennzoil Exploration and Production Company	PennzEnergy Exploration and Production, L.L.C.	Cert. of Merger	8/516
			PennzEnergy Exploration and Production, L.L.C.	Devon Energy Production Company, L.P.	Cert. of Merger	8/576
			Devon Energy Production Company, L.P.	East Resources, Inc.	Assignment	332/148
			East Resources, Inc.	HG Energy, LLC	Assignment	379/480
			East Resources, Inc. and HG Energy, LLC	American Energy - Marcellus, LLC	Assignment	451/404
9	5-8-38	MARC00738-001	American Energy - Marcellus, LLC	Ascort Resources - Marcellus, LLC	Cert. of Name Change	WV Sec. of State records
			F.R. Ball	South Penn Oil Company	1/8	27/309
			South Penn Oil Company	South Penn Natural Gas Company	Assignment	114/16
			South Penn Natural Gas Company	South Penn Oil Company	Assignment	151/516
			South Penn Oil Company	Pennzoil Company	Cert. of Name Change	WV Sec. of State records
			Pennzoil Company	Pennzoil United, Inc.	Assignment	178/221
			Pennzoil United, Inc.	Pennzoil Company	Cert. of Name Change	WV Sec. of State records
			Pennzoil Company	Pennzoil Products Company	Assn. & Supp. Assn.	265/258 & 269/417
			Pennzoil Products Company	Pennzoil Exploration and Production Company	Assignment	325/178
			Pennzoil Exploration and Production Company	PennzEnergy Exploration and Production, L.L.C.	Cert. of Merger	8/516
			PennzEnergy Exploration and Production, L.L.C.	Devon Energy Production Company, L.P.	Cert. of Merger	8/576
			Devon Energy Production Company, L.P.	East Resources, Inc.	Assignment	332/148
			East Resources, Inc.	HG Energy, LLC	Assignment	379/480
			East Resources, Inc. and HG Energy, LLC	American Energy - Marcellus, LLC	Assignment	451/404
10	5-8-39	MARC00738-001	American Energy - Marcellus, LLC	Ascort Resources - Marcellus, LLC	Cert. of Name Change	WV Sec. of State records
			F.R. Ball	South Penn Oil Company	1/8	27/309
			South Penn Oil Company	South Penn Natural Gas Company	Assignment	114/16
			South Penn Natural Gas Company	South Penn Oil Company	Assignment	151/516
			South Penn Oil Company	Pennzoil Company	Cert. of Name Change	WV Sec. of State records
			Pennzoil Company	Pennzoil United, Inc.	Assignment	178/221
			Pennzoil United, Inc.	Pennzoil Company	Cert. of Name Change	WV Sec. of State records
			Pennzoil Company	Pennzoil Products Company	Assn. & Supp. Assn.	265/258 & 269/417
			Pennzoil Products Company	Pennzoil Exploration and Production Company	Assignment	325/178
			Pennzoil Exploration and Production Company	PennzEnergy Exploration and Production, L.L.C.	Cert. of Merger	8/516
			PennzEnergy Exploration and Production, L.L.C.	Devon Energy Production Company, L.P.	Cert. of Merger	8/576
			Devon Energy Production Company, L.P.	East Resources, Inc.	Assignment	332/148
			East Resources, Inc.	HG Energy, LLC	Assignment	379/480
			East Resources, Inc. and HG Energy, LLC	American Energy - Marcellus, LLC	Assignment	451/404
11	5-8-39.1	MARC00738-001	American Energy - Marcellus, LLC	Ascort Resources - Marcellus, LLC	Cert. of Name Change	WV Sec. of State records
			F.R. Ball	South Penn Oil Company	1/8	27/309
			South Penn Oil Company	South Penn Natural Gas Company	Assignment	114/16
			South Penn Natural Gas Company	South Penn Oil Company	Assignment	151/516
			South Penn Oil Company	Pennzoil Company	Cert. of Name Change	WV Sec. of State records
			Pennzoil Company	Pennzoil United, Inc.	Assignment	178/221
			Pennzoil United, Inc.	Pennzoil Company	Cert. of Name Change	WV Sec. of State records
			Pennzoil Company	Pennzoil Products Company	Assn. & Supp. Assn.	265/258 & 269/417
			Pennzoil Products Company	Pennzoil Exploration and Production Company	Assignment	325/178
			Pennzoil Exploration and Production Company	PennzEnergy Exploration and Production, L.L.C.	Cert. of Merger	8/516
			PennzEnergy Exploration and Production, L.L.C.	Devon Energy Production Company, L.P.	Cert. of Merger	8/576
			Devon Energy Production Company, L.P.	East Resources, Inc.	Assignment	332/148
			East Resources, Inc.	HG Energy, LLC	Assignment	379/480
			East Resources, Inc. and HG Energy, LLC	American Energy - Marcellus, LLC	Assignment	451/404
12	5-8-22	MARC00717-001	American Energy - Marcellus, LLC	Ascort Resources - Marcellus, LLC	Cert. of Name Change	WV Sec. of State records
			A.D. Lemasters and Mary Lemasters, husband and wife	South Penn Oil Company	1/8	23/100
			South Penn Oil Company	South Penn Natural Gas Company	Assignment	114/16
			South Penn Natural Gas Company	South Penn Oil Company	Assignment	151/516
			South Penn Oil Company	Pennzoil Company	Cert. of Name Change	WV Sec. of State records
			Pennzoil Company	Pennzoil United, Inc.	Assignment	178/221
			Pennzoil United, Inc.	Pennzoil Company	Cert. of Name Change	WV Sec. of State records
			Pennzoil Company	Pennzoil Products Company	Assn. & Supp. Assn.	265/258 & 269/417
			Pennzoil Products Company	Pennzoil Exploration and Production Company	Assignment	325/178
			Pennzoil Exploration and Production Company	PennzEnergy Exploration and Production, L.L.C.	Cert. of Merger	8/516
			PennzEnergy Exploration and Production, L.L.C.	Devon Energy Production Company, L.P.	Cert. of Merger	8/576
			Devon Energy Production Company, L.P.	East Resources, Inc.	Assignment	332/148
			East Resources, Inc.	HG Energy, LLC	Assignment	379/480
			East Resources, Inc. and HG Energy, LLC	American Energy - Marcellus, LLC	Assignment	451/404
			American Energy - Marcellus, LLC	Ascort Resources - Marcellus, LLC	Cert. of Name Change	WV Sec. of State records

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103-03210

September 7, 2017

West Virginia Department of Environmental Protection  
Chief, Office of Oil & Gas  
Attn: Mr. James Martin  
601 57<sup>th</sup> Street  
Charleston, West Virginia 25304

Re: Application for a Permit to Drill  
Hoge S GRN WZ 6H

Dear Mr. Martin,

Ascent Resources – Marcellus, LLC has the right to drill, extract and produce the minerals from any roads crossed by the proposed laterals for the Hoge S GRN WZ 6H well by virtue of the lease identified on page WW-6A1 of the accompanying permit application.

No action on your part is required. If you have any questions or concerns, please feel free to contact me.

Best Regards,

A handwritten signature in blue ink, appearing to read 'Ariel Renken', with a long horizontal flourish extending to the right.

Ariel Renken  
Regulatory Analyst  
[ariel.renken@ascentresources.com](mailto:ariel.renken@ascentresources.com)  
Cell 405-403-4803  
Office 405-252-7642

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

Date of Notice Certification: 08/30/2017

API No. 47- 103 - 03210  
Operator's Well No. Hoge S GRN WZ 6H  
Well Pad Name: Hoge S GRN WZ

**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>526125.3</u>
County: <u>Wetzel</u>		Northing: <u>4370067.3</u>
District: <u>Green</u>	Public Road Access: <u>CR 13/8</u>	
Quadrangle: <u>Center Point</u>	Generally used farm name: _____	
Watershed: <u>Fishing Creek</u>		

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

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input 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><b>OOG OFFICE USE ONLY</b></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>
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**Required Attachments:**

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

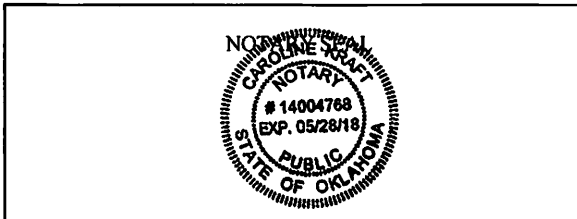
SEP 11 2017

**Certification of Notice is hereby given:**

THEREFORE, I Ariel Renken, 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: Ascent Resources  
By:   
Its: Regulatory Analyst  
Telephone: 405-252-7642

Address: 3501 NW 63rd Street  
Oklahoma City, Oklahoma 73116  
Facsimile: \_\_\_\_\_  
Email: ariel.renken@ascentresources.com



Subscribed and sworn before me this 7 day of Sept, 2017.

Caroline Kraft Notary Public

My Commission Expires 05/28/18

**Oil and Gas Privacy Notice:**

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

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

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

**Date of Notice:** 8/7/2017 **Date Permit Application Filed:** 9/7/2017

**Notice of:**

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

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

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

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

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

SURFACE OWNER(s)  
 Name: State of WV Public Land Corp., Dept of Comm, Labor, & Environ  
 Address: Capitol Complex, Bldg 6, Room 525  
Charleston, WV 25301

Name: WV Dept of Natural Resources Commerce Division  
 Address: Capitol Complex, Bldg 6, Room 525  
Charleston, WV 25301

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

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

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

SURFACE OWNER(s) (Impoundments or Pits)

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

COAL OWNER OR LESSEE  
 Name: Please see attached.  
 Address: \_\_\_\_\_

COAL OPERATOR  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
 Name: Please see attached.  
 Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

\*Please attach additional forms if necessary

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API NO. 47- 103-03210  
OPERATOR WELL NO. Hoge S GRN WZ 6H  
Well Pad Name: Hoge GRN WZ

WV Department  
Environmental Protection

**Notice is hereby given:**

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

**This Notice Shall Include:**

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

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

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

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

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

**Well Location Restrictions**

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

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

**Water Well Testing:**

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

**Water Testing Laboratories:**

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

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

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

**Written Comment:**

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

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

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

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

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

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

**Comment Requirements**

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

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

**Permit Denial or Condition**

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

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

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

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

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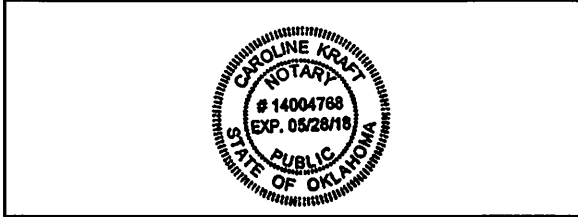
**Notice is hereby given by:**

Well Operator: Ascent Resources - Marcellus, LLC  
Telephone: 405-252-7642  
Email: ariel.renken@ascentresources.com

Address: 3501 NW 63rd Street  
Oklahoma City, OK 73116  
Facsimile: \_\_\_\_\_

**Oil and Gas Privacy Notice:**

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



Subscribed and sworn before me this 30 day of Aug, 2017.

Caroline Kraft Notary Public

My Commission Expires 05/23/2018 05/28/18

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103-03210

**WW-6A Notice of Application  
Hoge S GRN WZ 2H, 4H and 6H**

<b>Surface Ownership</b>				
<b>Name</b>	<b>Address</b>	<b>City</b>	<b>ST</b>	<b>ZIP</b>
State of WV Public Land Corp. Dept. Of Comm. LBR. & Envir. DNR	Capitol Complex, Bldg. 6, Room 525	Charleston	WV	25301
WV Dept. of Natural Resources Commerce Division	Capitol Complex, Bldg. 6, Room 525	Charleston	WV	25301

<b>Coal Ownership</b>				
<b>Name</b>	<b>Address</b>	<b>City</b>	<b>ST</b>	<b>ZIP</b>
Helen M. Dallison	28907 Shortline Hwy	Folsom	WV	26348
The State of West Virginia, Public Land Corporation, for the use and benefit of the Department of Commerce, Labor and Environmental Resources, Division of Natural Resources	Capitol Complex, Bldg 6, Room 525	Charleston	WV	25301

<b>Water Ownership</b>				
<b>Name</b>	<b>Address</b>	<b>City</b>	<b>ST</b>	<b>ZIP</b>
Richard Heimbrod	PO Box 25	Clarrington	OH	43915
Russel, Paul & Carol Stackpole	PO Box 423 Dodd St	Middlebourne	WV	26149
Coastal Forest Resources	PO Box 709	Buckhannon	WV	26201
William Carl Thompson	3412 S. Weymouth Road	Medina	OH	44256
WV Division of Natural Resources	324 4th Ave	S. Charleston	WV	25303
Yellow House Sportsman Club	1522 Main St	Wellsburg	WV	26070

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4710303210

# WATER WELLS WITHIN 3000'

**INTERNAL**

<b>Applicant / Well Operator Name:</b> Ascent Resources - MARCELLUS, LLC	<b>Well (Farm) Name:</b> HOGE S GRN WZ	<b>Well #:</b> 6H	<b>Serial #:</b>
---	---	----------------------	------------------

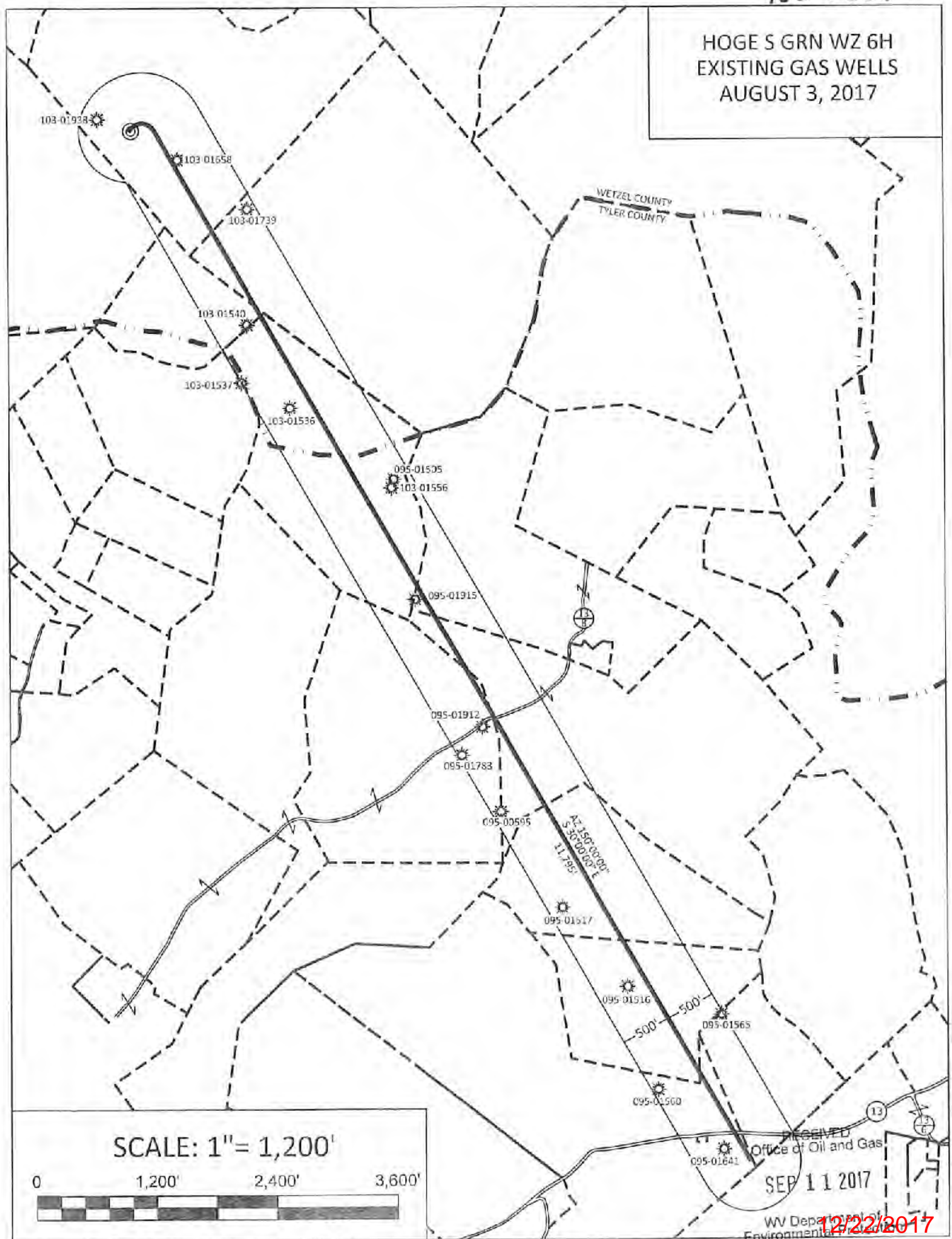
Addresses of Surface Owner or Water Purveyor with Water Supply within 3,000'

- |    |  |                                   |                   |                      |
|----|--|-----------------------------------|-------------------|----------------------|
| 1. | YELLOW HOUSE SPORTSMAN CLUB (05-25-11) | 1522 MAIN ST, WELLSBURG, WV 26070 | (NAD 83 WV North) | 39.482521,-80.700162 |
| 2. | RICHARD HEIMBROD (05-25-7)             | PO BOX 25, CLARINGTON, OH 43915   | (NAD 83 WV North) | 39.485363,-80.697558 |

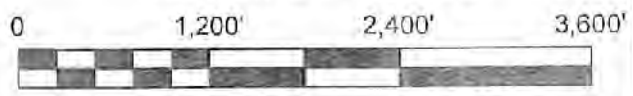
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103-03210

HOGES GRN WZ 6H  
EXISTING GAS WELLS  
AUGUST 3, 2017



SCALE: 1" = 1,200'



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

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

**Notice Time Requirement:** Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

**Date of Notice:** 08/07/2017      **Date Permit Application Filed:** 09/07/2017

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

- HAND DELIVERY**       **CERTIFIED MAIL RETURN RECEIPT REQUESTED**

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

**Notice is hereby provided to the SURFACE OWNER(s):**

**Name:** State of WV Public Land Corp. Dept. Of Comm. LBR. & Envir. DNR  
**Address:** Capitol Complex, Bldg. 6, Room 525  
Charleston, WV 25301

**Name:** WV Dept. of Natural Resources Commerce Division  
**Address:** Capitol Complex, Bldg. 6, Room 525  
Charleston, WV 25301

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon 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>526125.3</u>
County:	<u>Wetzel</u>		Northing:	<u>4370067.3</u>
District:	<u>Green</u>	Public Road Access:		<u>CR 13/8</u>
Quadrangle:	<u>Center Point</u>	Generally used farm name:		<u></u>
Watershed:	<u>Fishing Creek</u>			

**This Notice Shall Include:**

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx) and [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx)

**Notice is hereby given by:**

**Well Operator:** Ascent Resources - Marcellus, LLC  
**Address:** 3501 NW 63rd Street  
Oklahoma City, OK 73116  
**Telephone:** 405-608-5544  
**Email:** info@ascentresources.com  
**Facsimile:**

**Authorized Representative:** Ariel Renken  
**Address:** 3501 NW 63rd Street  
Oklahoma City, OK 73116  
**Telephone:** 405-252-7642  
**Email:** ariel.renken@ascentresources.com  
**Facsimile:**

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**Oil and Gas Privacy Notice:**

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

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**WW-6A4 Notice of Intent to Drill**  
**Hoge S GRN WZ 2H, 4H and 6H**

<b>Surface Ownership</b>				
<b>Name</b>	<b>Address</b>	<b>City</b>	<b>ST</b>	<b>ZIP</b>
State of WV Public Land Corp. Dept. Of Comm. LBR. & Envir. DNR	Capitol Complex, Bldg. 6, Room 525	Charleston	WV	25301
WV Dept. of Natural Resources Comme	Capitol Complex, Bldg. 6, Room 525	Charleston	WV	25301

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**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:** 08/07/2017      **Date Permit Application Filed:** 09/07/2017

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

- CERTIFIED MAIL                                       HAND  
RETURN RECEIPT REQUESTED                                      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:** State of WV Public Land Corp. Dept. Of Comm. LBR. & Envir. DNR  
**Address:** Capitol Complex, Bldg. 6, Room 525  
Charleston, WV 25301

**Name:** WV Dept. of Natural Resources Commerce Division  
**Address:** Capitol Complex, Bldg. 6, Room 525  
Charleston, WV 25301

**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>526125.3</u>
County:	<u>Wetzel</u>		Northing:	<u>4370067.3</u>
District:	<u>Green</u>	Public Road Access:	<u>CR 13/8</u>	
Quadrangle:	<u>Center Point</u>	Generally used farm name:	<u></u>	
Watershed:	<u>Fishing Creek</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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Well Operator:** Ascent Resources - Marcellus, LLC  
**Telephone:** 405-608-5544  
**Email:** ariel.renken@ascentresources.com

**Address:** 3501 NW 63rd Street  
Oklahoma City, OK 73116  
**Facsimile:**

**Oil and Gas Privacy Notice:**

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

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Environmental Protection  
SEP 22 2017

**WW-6A5 Notice of Planned Operations  
Hoge S GRN WZ 2H, 4H and 6H**

Surface Ownership				
Name	Address	City	ST	ZIP
State of WV Public Land Corp. Dept. Of Comm. LBR. & Envir. DNR	Capitol Complex, Bldg. 6, Room 525	Charleston	WV	25301
WV Dept. of Natural Resources Commerce Division	Capitol Complex, Bldg. 6, Room 525	Charleston	WV	25301

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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

Earl Ray Tomblin  
 Governor

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

September 23, 2015

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

Subject: DOH Permit for the site Hoge South (503) Pad, Tyler County

Hoge S GRN WZ 2H  
 Hoge S GRN WZ 8H

Hoge S GRN WZ 4H  
 Hoge S GRN WZ 10H

Hoge S GRN WZ 6H  
 17-103-03210

Dear Mr. Martin,

This well site will be accessed from a DOH permit 06-2014-0571 which has been transferred to Ascent Resources – Marcellus, LLC for access to the State Road. The well site is located off of Tyler County Route 13/8.

This operator has signed a Statewide Oil and Gas Road Maintenance Bonding Agreement and provided the required bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

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

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 WV Department of  
 Environmental Protection

Cc: Eric Bruckman  
 Ascent Resources - Marcellus, LLC.  
 CH, OM, D-6  
 File

12/22/2017

**\*\*CELLS WITH BLUE BACKGROUND ARE THE ONLY CELLS TO BE EDITED\*\***

Fracture Start Date/Time:	
Fracture End Date/Time:	
State:	WV
County:	Wetzel
API Number:	
Operator Number:	
Well Name:	Wbes GRN WZ
Federal Well:	No
Longitude:	
Latitude:	
Long/Lat Projection:	NAD27
True Vertical Depth (TVD):	
Total Clean Fluid Volume* (gal):	8,553,174



Additive	Specific Gravity	Additive Quantity	Mass (lbs)
Water	1.00	8,553,174	71,376,237
Sand (Proppant)	2.65	8,135,700	8,135,700
Hydrochloric Acid (15%)	1.07	43,500	383,418
Hydrochloric Acid (7.5%)	1.04	0	0
PROHIB II	0.97	44	356
FRA 407	1.05	9,505	83,523
BIO CLEAR 2000	1.24	0	0
PRO SCALE CLEAR 112	1.19	0	0
PRO FLO 102 M	0.94	3,695	28,985
PRO GEL 4 0L	1.02	6,716	57,166
PRO BREAKER 4	1.26	30	312
BXL-10C	1.27	0	0
PRO DRB-LT	1.81	0	0
BUFFER1	2.13	0	0
POLY BREAK	1.20	0	0

Total Slurry Mass (Lbs)  
80,070,697

**Ingredients Section:**

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass) <sup>1,2</sup>	Mass per Component (LBS)	Maximum Ingredient Concentration in HF Fluid (% by mass) <sup>1,2</sup>	Comments
Water	Company 1	Carrier/Base Fluid	Water	7732-18-5	100.00%	71,376,237	83.1452%	
Sand (Proppant)	PSC	Proppant	Silica Substrate		100.00%	8,135,700	10.1665%	
Hydrochloric Acid (15%)	Producers Service Corp	Acidizing	Hydrochloric Acid	7647-01-0	10.00%	38,842	0.04851%	
PROHIB II	Producers Service Corp	Inhibitor	Diancylhydroxamic, bis(chloroethyl) ether diquatam	64607-28-3	40.00%	142	0.00018%	
			2-Butoxyethanol	111-76-2	20.00%	71	0.00009%	
			Ethylene Glycol	107-21-1	20.00%	71	0.00009%	
			Methyl Alcohol	67-56-1	20.00%	71	0.00009%	
			Nonyl Phenol Ethoxylate, Branched	127087-87-0	15.00%	53	0.00007%	
			Propargyl Alcohol	107-19-7	15.00%	53	0.00007%	
			Coco alkylmethylamines	61288-93-0	2.50%	9	0.00001%	
FRA 407	Producers Service Corp	Friction Reducer	Water	7732-18-5	Proprietary	RV/ALU/EI	RV/ALU/EI	
			Petroleum Distillate	64742-47-8	40.00%	33,409	0.04172%	
			Polyacrylamide salt	Proprietary	30.00%	25,057	0.03129%	
			Sodium Chloride	7647-14-5	5.00%	4,176	0.00522%	
			Ammonium Chloride	12125-02-9	5.00%	4,176	0.00522%	
			Ethoxyate Alcohol	Proprietary	5.00%	4,176	0.00522%	
			Tall oil	Proprietary	2.00%	1,670	0.00209%	
			Proprietary Ingredient	Proprietary	1.00%	835	0.00104%	
PRO FLO 102 M	Producers Service Corp	Surfactant	Water	7732-18-5	Proprietary	RV/ALU/EI	RV/ALU/EI	
			Methyl Alcohol	6756-1	60.00%	17,391	0.02122%	
			N-dodecyl-2-pyrrolidone	2687-96-9	5.00%	1,449	0.00181%	
PRO BREAKER 4	Producers Service Corp	Breaker	Water	7732-18-5	Proprietary	RV/ALU/EI	RV/ALU/EI	
			Ethoxyate Alcohol	Proprietary	Proprietary	RV/ALU/EI	RV/ALU/EI	
			Ethylene Glycol	107-21-1	40.00%	125	0.0016%	
			Sucrose	57-50-1	40.00%	125	0.0016%	
			Polyether Polyol	9003-11-6	1.00%	3	0.00000%	
			Sodium Bicarbonate	144-55-8	1.00%	3	0.00000%	
			Hexamethylenetetramine	100-97-0	1.00%	3	0.00000%	
			Proprietary Ingredient	Proprietary	1.00%	3	0.00000%	
			Proprietary Ingredient	Proprietary	1.00%	3	0.00000%	
			Proprietary Ingredient	Proprietary	1.00%	3	0.00000%	
PRO GEL 4 0L	Producers Service Corp	Gelling Agent	Water	7732-18-5	Proprietary	RV/ALU/EI	RV/ALU/EI	
			Distillates (Petroleum), hydrotreated light	64742-47-8	65.00%	37,158	0.04641%	
			Nonylphenol Ethoxylate	9016-45-9	5.00%	2,858	0.00357%	
			Gum Gum	9000-30-0	50.00%	28,583	0.03570%	
			Nonionic Surfactant	60828-78-6	5.00%	2,858	0.00357%	

\*Total Water Volume sources may include fresh water, produced water, and/or recycled water

\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.

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Environmental Protection

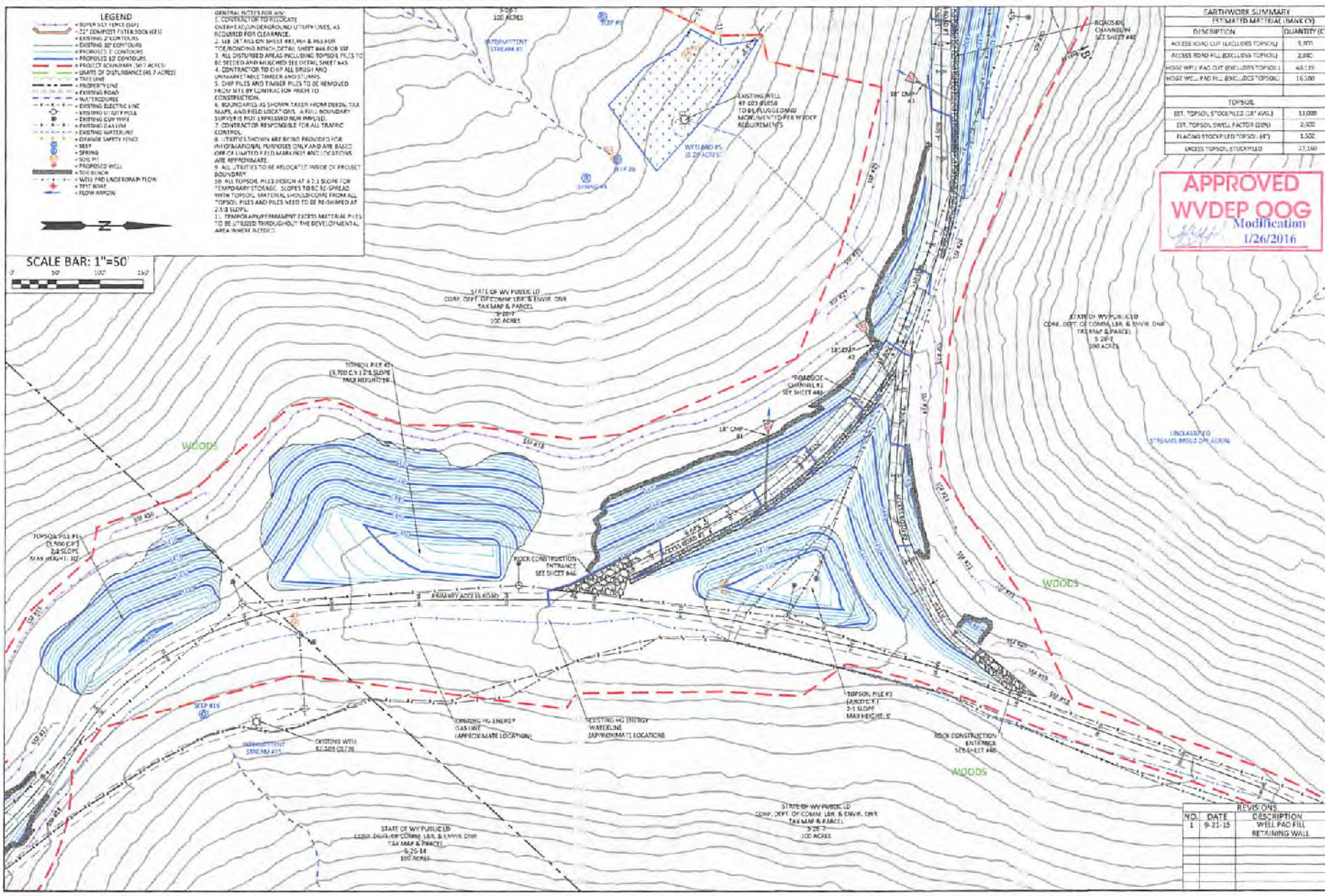
103-03210



- LEGEND**
- SUPPLEMENTAL SOILS (S1)
  - COMPOST FILTER SOCK (S1)
  - EXISTING 2" CONTOURS
  - EXISTING 50' CONTOURS
  - PROPOSED 2" CONTOURS
  - PROPOSED 50' CONTOURS
  - PROCT BOUNDARY (56.7 ACRES)
  - UNITS OF DISTURBANCE (46.7 ACRES)
  - TRAIL LINE
  - PROPERTY LINE
  - EXISTING ROAD
  - WATER COURSE
  - EXISTING ELECTRIC LINE
  - EXISTING UTILITY POLE
  - EXISTING CUMULATIVE
  - EXISTING GAS LINE
  - EXISTING WATER LINE
  - EXISTING SAFETY FENCE
  - SEEP
  - SPRING
  - SOIL PIT
  - PROPOSED WELL
  - TOE BLOCK
  - WELL PAD UNDERMINER FLOW
  - TRAIL MARK
  - FLOW ARROW

**GENERAL NOTES FOR CONTRACTOR TO RELOCATE OVERHEAD ACROSSOVER AND UTILITY LINES, AS REQUIRED FOR CLEARANCE.**

- SEE 24' TALL OVERHUNG SIGN & WALL FOR THE PROPOSED SIGN. DETAIL SHEET HAS FOR USE.
- ALL DISTURBED AREAS INCLUDING TOPSOIL PILES TO BE SEEDED AND MULCHED SEE DETAIL SHEET HAS.
- CONTRACTOR TO DO ALL BRUSH AND UNMARKETABLE TRIMMER AND STUMPS.
- CHIP PILES AND TRIMMER PILES TO BE REMOVED FROM SITE BY CONTRACTOR PRIOR TO CONSTRUCTION.
- RELOCATIONS AS SHOWN TAKEN FROM DEEDS, TAX MAPS, AND FIELD LOCATIONS. A FIELD BOUNDARY SURVEY IS NOT EXPRESSED NOR IMPLIED.
- CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL.
- TRIPLES SHOWN ARE REFINED PROPOSED FOR INFORMATIONAL PURPOSES ONLY AND ARE BASED ON A LIMITED FIELD MARKING AND LOCATIONS ARE RESPONSIBLE.
- ALL TRIPLES TO BE RELOCATED INSIDE OF PROJECT BOUNDARY.
- ALL TOPSOIL PILES DESIGN AT A 2:1 SLOPE FOR TEMPORARY STORAGE. SLOPES TO BE SPREAD WITH TOPSOIL. MATERIAL SHOULD COME FROM ALL TOPSOIL PILES AND PILES NEED TO BE RE-SHAPED AT 2:1 SLOPE.
- TEMPORARY RAMPWAY EXCESS MATERIAL PILES TO BE UTILIZED THROUGHOUT THE DEVELOPMENT AREA WHERE NEEDED.



**EARTHWORK SUMMARY**

DESCRIPTION	QUANTITY (CY)
ACCESS ROAD CUT (EXCLUDES TOPSOIL)	5,870
ACCESS ROAD FILL (EXCLUDES TOPSOIL)	2,840
HOSE WELL PAD CUT (EXCLUDES TOPSOIL)	48.75
HOSE WELL PAD FILL (EXCLUDES TOPSOIL)	16,200
<b>TOPSOIL</b>	
EST. TOPSOIL STOCKPILES (24' AVG)	13,000
EST. TOPSOIL SWELL FACTOR (20%)	2,600
PLACING STOCKPILED TOPSOIL (4')	1,500
EXCESS TOPSOIL STOCKPILED	27,100

**APPROVED WV DEP OOG Modification**  
1/26/2016

**BOORD, BENCHEK and ASSOC., INC.**  
Engineering, Surveying, Construction, and Mining Services  
Southport, PA 15317 Phone: 724-746-1305

**E&S CONTROL AND SITE PLAN**

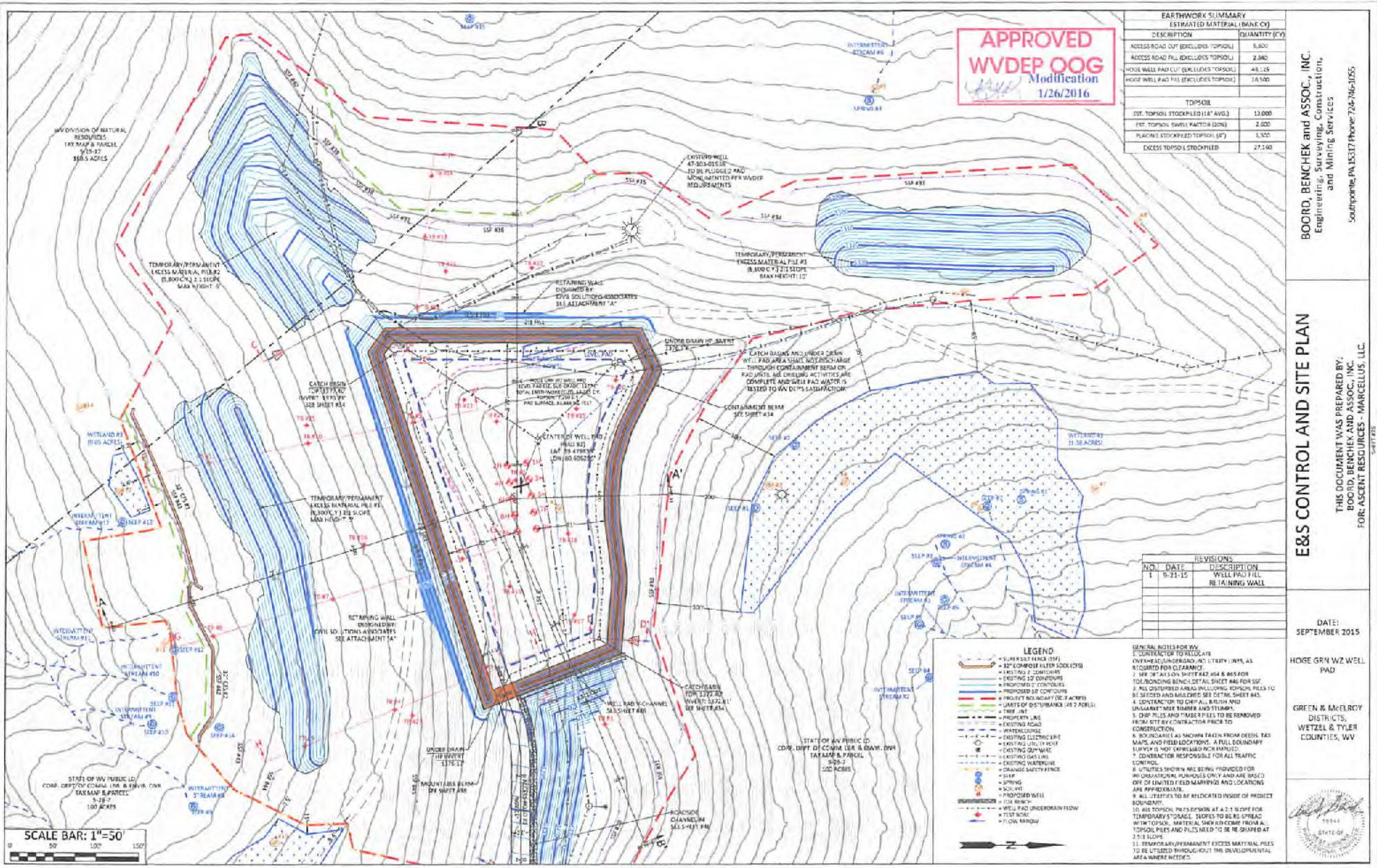
THIS DOCUMENT WAS PREPARED BY:  
**BOORD, BENCHEK AND ASSOC., INC.**  
FOR: ASCENT RESOURCES - MARCELLUS, L.L.C.

DATE: SEPTEMBER 2015  
HOGE GRN WZ WELL PAD  
GREEN & McELROY DISTRICTS, WETZEL & TYLER COUNTIES, WV

**REVISIONS**

NO.	DATE	DESCRIPTION
1	9-21-15	WELL PAD FILL RETAINING WALL





**APPROVED**  
**WVDEP OOG**  
 Modification  
 1/26/2016

EARTHWORK SUMMARY	
DESCRIPTION	QUANTITY (CY)
ACCESS ROAD CUT (EXCLUDES TOPSOIL)	5,800
ACCESS ROAD FILL (EXCLUDES TOPSOIL)	2,840
HOUSE WALK PAD CUT (EXCLUDES TOPSOIL)	48.15
HOUSE WALK PAD FILL (EXCLUDES TOPSOIL)	16,100
TOPSOIL	
EST. TOPSOIL STOCKPILED (1.5" AVG.)	13,000
EST. TOPSOIL SWELL FACTOR (10%)	2,000
PLACING STOCKPILED TOPSOIL (1.5")	1,500
EXCESS TOPSOIL STOCKPILED	27,100

**BOORD, BENCHEK and ASSOC., INC.**  
 Engineering, Surveying, Construction,  
 and Mining Services  
 Southpointe, PA 15317 Phone: 724-746-1055

**E&S CONTROL AND SITE PLAN**

THIS DOCUMENT WAS PREPARED BY:  
**BOORD, BENCHEK and ASSOC., INC.**  
 FOR: ASCENT RESOURCES - MARCELLUS, LLC.

DATE:  
 SEPTEMBER 2015

HOSE GRN WZ WELL  
 PAD

GREEN & McFELY  
 DISTRICTS,  
 WETZEL & TYLER  
 COUNTIES, WV



REVISIONS		
NO.	DATE	DESCRIPTION
1	9-21-15	WELL PAD FILL RE TRAINING WALL

**LEGEND**

- SUBMITTAL STREAM #1
- EXISTING 2" CONDUIT
- EXISTING 3" CONDUIT
- PROPOSED 3" CONDUIT
- PROJECT BOUNDARY (0.2 ACRES)
- LIMITS OF DISTURBANCE (AS 2 ACRES)
- TRAIL
- PROPERTY LINE
- EXISTING ROAD
- INTERLOCKING
- EXISTING ELECTRIC LINE
- EXISTING 1/2" PIP
- EXISTING 3/4" PIP
- EXISTING GAS LINE
- EXISTING WATERLINE
- ORANGE SAFETY FENCE
- WELL
- SPRING
- SOIL VINE
- PROPOSED WELL
- WELL PAD UNDERDRAIN FLOW
- TEST SCALE
- PIVOT MARKER

- GENERAL NOTES FOR WZ:**
1. VERIFY LOCATION TO REGULATE OVERHEAD UNDERGROUND UTILITY LINES, AS REQUIRED FOR CLEARANCES.
  2. SEE "DEVELOPMENT SHEET #2 AND #3 FOR THE BONDING BENCH DETAIL SHEET #48 FOR SGP.
  3. ALL DISTURBED AREAS INCLUDING EROSION PILES TO BE SEEDED AND MULCHED. SEE DETAIL SHEET #48.
  4. CONTRACTOR TO GRIP ALL BRUSH AND UNWANTED TREE TRUNKS AND STUMPS.
  5. CHIP PILES AND TRUNK PILES TO BE REMOVED FROM SITE BY CONTRACTOR PRIOR TO CONSTRUCTION.
  6. BOUNDARIES AS SHOWN TAKEN FROM DEEDS, TAX MAPS, AND FIELD LOCATIONS. A FULL BOUNDARY SURVEY IS NOT EXPRESSED OR IMPLIED.
  7. CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL.
  8. UTILITIES SHOWN ARE BEING PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND ARE BASED OFF OF LIMITED FIELD MARKING AND LOCATIONS ARE APPROXIMATE.
  9. ALL UTILITIES TO BE RELOCATED INSIDE OF PROJECT BOUNDARY.
  10. ALL TOPSOIL TO BE SCREENED AT A 2.5' SLOPE FOR TEMPORARY STORAGE. SLOPES TO BE RE-SPREAD WITH TOPSOIL. MATERIAL SHOULD COME FROM ALL TOPSOIL PILES AND PILES NEED TO BE GRAPED AT 2.5:1 SLOPE.
  11. TEMPORARY DIVERSION EXCESS MATERIAL PILES TO BE UTILIZED THROUGHOUT THE DEVELOPMENTAL AREA WHERE APPROPRIATE.

SCALE BAR: 1" = 50'



WV DIVISION OF NATURAL RESOURCES  
 TAX MAP & PARCEL 9-25-17  
 188.7 ACRES

STATE OF WV PUBLIC LD.  
 CORP. DEPT OF CORRAL LINE & EARTH CORN  
 TAX MAP & PARCEL 9-25-17  
 100 ACRES

STATE OF WV PUBLIC LD.  
 CORP. DEPT OF CORRAL LINE & EARTH CORN  
 TAX MAP & PARCEL 9-25-17  
 100 ACRES