west virginia department of environmental protection

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

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

August 11, 2014

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-7700614, issued to MOUNTAINEER KEYSTONE, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

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

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

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

James Martin
Chief

Operator's Well No: GRAGG 203
Farm Name: GRAGG, JAMES E.
API Well Number: 47-7700614
Permit Type: Horizontal 6A Well
Date Issued: 08/11/2014

Promoting a healthy environment.

API Number: 77-00614

PERMIT CONDITIONS

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

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.

2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.

3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.

4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.

5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations,* 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.

6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.

7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.

8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

9. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

77- 00614

WW-6B
(9/13)

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

1) Well Operator: Mountaineer Keystone, LLC | 494501227 (Operator ID) | Preston (County) | Reno (District) | Thornton 7.5' (Quadrangle)

2) Operator's Well Number: Gragg 203 Well Pad Name: Gragg 201-203

3) Farm Name/Surface Owner: James E. Gragg Public Road Access: Rt. 50

4) Elevation, current ground: 1505' Elevation, proposed post-construction: 1500'

5) Well Type (a) Gas ■ Oil ____ Underground Storage ____
Other ____
(b)If Gas Shallow ■ Deep ____
Horizontal ■

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Marcellus Shale, 8250' (TVD Heel) 8250' (TVD Toe), 100 ft., 0.5 psi/ft.

8) Proposed Total Vertical Depth: 8250'

9) Formation at Total Vertical Depth: Marcellus Shale

10) Proposed Total Measured Depth: 13,941'

11) Proposed Horizontal Leg Length: 5006'

12) Approximate Fresh Water Strata Depths: surface to 850 feet

13) Method to Determine Fresh Water Depths: Offsetting wells reported water depths (077-00466, 077-00467, 077-00468, 077-00469, 077-00470)

14) Approximate Saltwater Depths: 1000' - 1800'

15) Approximate Coal Seam Depths: Bakerstown - 160', Brush Creek - 250', Upper Freeport - 345', Lower Freeport - 405', Upper Kittanning - 475', Middle Kittanning - 515', Lower Kittanning - 555'

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

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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77- 00614

WW-6B
(9/13)

18) **CASING AND TUBING PROGRAM**

TYPE	Size	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill-up (Cu. Ft.)
Conductor	20"	New	H-40	94#	100'	100'	Grout
Fresh Water	13.375"	New	J-55	54.5#	900'	900'	CTS
Coal							
Intermediate	9.625'	New	J-55	36#	1900'	1900'	CTS
Production	5.5"	New	P-110	20#	13,941'	13,941'	TOC@1,700'
Tubing							
Liners							

LKC
8-8-14

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.417"	1530	None	None
Fresh Water	13.375"	17.5"	0.38"	2730	Class A & 1.5% CaCl	1.18
Coal						
Intermediate	9.625"	12.25"	0.352"	3520	Type 1 & 1.5% CaCl	1.18
Production	5.5"	7.875"	0.361"	14360	50/50 - Type 1	1.2
Tubing						
Liners						

PACKERS

Kind:				
Sizes:				
Depths Set:				

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

The well will be started with a conductor rig drilling a 30" hole to Conductor programmed depth then running 20" casing and grout cement back to surface. The conductor rig will move out and the drilling rig will move in and rig up. The drilling rig will then spud a 17 ½" hole and drill to fresh water casing (Surface) to the programmed depth, Run 13- 3/8" casing and cement to surface. The rig will continue drilling a 12- ¼" intermediate hole to the programmed depth, run 9- 5/8" casing and cement to surface. The rig with then continue to drill a 8- ¾" hole vertically to a programmed depth, run wireline logs and then plug back the well with the programmed cement to a designed KOP. We will then start drilling the curve and lateral section to the programmed total measured depth, run 5 ½" casing and cement according to the program.

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

The well will be completed using a plug and perforation method and stimulated with a slickwater and sand slurry. The anticipated maximum rate will be 90 bpm and the maximum pressure will be 9,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 16.5 acres

22) Area to be disturbed for well pad only, less access road (acres): 12.6 acres

23) Describe centralizer placement for each casing string:

20"- No centralizers
13 3/8" – one bow spring centralizer on every other joint
9 5/8" – one bow spring centralizer every third joint from TD to surface
5 ½" – one semi rigid centralizer on every joint from TD of casing to end of curve. Then every other joint to KOP. Every third joint from KOP to 1,750' TOC will be 1,750'; there will be no centralizers from 1750' to surface.

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

*See attached sheet

25) Proposed borehole conditioning procedures:

*See attached sheet

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*Note: Attach additional sheets as needed.

Mountaineer Keystone LLC

Gragg 203

Cement Additives

- 20" is auger drilled and grouted back to surface.
- The 13-3/8" casing will be cemented to surface with Class A cement and no greater than 3% CaCl (Calcium Chloride).
- The 9-5/8" casing will be cemented to surface with Type 1 cement and no greater than 3% calcium choride.
- The 5-1/2" production string will be cemented back to 1750' (+/- 200' above the casing shoe for the 9-5/8") with Type 1 or Class A cement retarter (to extend pumpability) cellophane flaked for fluid loss, Bentonite gel as an extender (increased pumpability and fluid loss), a defoaming agent to decrease cement foaming during mixing to insure the cement is of proper weight to placement and possibly a gypsum gas blocking additive to aid in blocking/gas migration (in combination with other additives mentioned here, helps cement achieve a "right-angle" set) during the plastic phase of the cement set-up.

Proposed Borehole Conditioning Procedures:

- Top holes will be drilled on fluid to KOP. At KOP, the wellbore will be loaded with water based mud, barite-weighted mud system with such properties to build a filter-cake on the face to the bore-hole. This will provide lubricity as well as stabilizing the well bore. We will begin rotating the drill string and mud will be circulated upon reaching TD until no further cuttings are observed coming across the shaker screens. Once clean mud is circulated back to surface, we will pull three stands of drill pipe, load the hole, pull three stands and load the hole. The weight indiciatror on the rig will be monitored for any occurrences of drag and if any are noticed, we will re-run the previous stand of pipe pulled across and circulate 2X bottoms up while watching the shakers for signs of cuttings. Once at the base of the curve, the string will be continuously rotated while pumping 2X bottoms up. We will pull three stands and fill the hole until we reach the vertical section of the well.

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4707700614

Mountaineer Keystone

Mountaineer Keystone
Gragg #203
Casing Design
Directional Plan #1 (Phoenix)

Other Names:	Gragg Well	County:	Preston
Surface Location:	See Direction Plan	State:	West Virginia
Bottom Hole Location:	See Direction Plan	AFE #:	API #:
		RKB:	24
Total Depth:	13,941' MD / 8,250' TVD	Ground Level:	1,524

Logs	Significant Formations (TVD)	Depth (ft) MD	Depth (ft) TVD	Hole Size	Casing and Cement	Mud	Directional & Surveys Drlg /Csg Point
None	Section 1		Grout				
		100	100		20" 94# H-40 STC		Vertical
None					17 1/2" (PDC)	Floc Water	
	Section 2		Floc		Cement:Class A 492 Sacks w/ 30% Excess TOC: Surface (top off if needed)		
Possible CBL after cement job		900	900		13 3/8" 54.5# J-55 BTC		Vertical
None	Section 3		Floc		12 1/4" (PDC)	Floc Water	
					Cement:Type 1 599 Sacks w/ 30% Excess TOC: Surface (top off if needed)		
Possible CBL after cement job		1950'	1950'		9 5/8" 36# J-55 LTC		Vertical
	Section 4		Floc				
			SOBM				

Wireline: None
Mudloggers:6,246' - TD
KOP @ 6,246' MD

Mud Data	From	To
Floc Water	100	1950'
Floc Water	1950'	6,246
12.5-13.0 ppg WBM or SOBM	1950'	13,941

Bit Data	From	To
17-1/2" & 12 1/4" PDC	60' ft	1950'
8- 3/4" (PDC)	1950'	13,941

Directional Data	See Directional Plan
KOP	6,246
Build #1	9°/100 ft - angle XX° - Az XX°
EOB	XXX' /XXXX'
Hold	0°/100 ft - angle XX° - Az XX°
BOH	XXX' /XXXX'
EOH	XXXX' / XXXX'
Build 2	9°/100 ft - angle 90° - Az 335°
KOP	XXXX' / XXXX'
EOB	XXX' / 8,196'
TD	13,941' MD / 8,250' TVD
Lateral	XXXX

Wier Sandstone
1st Elk Siltstone
Burkett Shale
Tully (Limestone)
Marcellus

Cement: Type 1
Tail 1.18 ft3/sack +10% Exs in OH = 2697 sacks
Tail TOC : 1,750 ft
Pilot hole plug back 2,500' 870 sacks

13,941 MD
8,250' TVD
90 inclination 156° Azmuth

5 1/2" 20# P-110 EC DWC

Onondaga

TD 8,359

Revision 1

Note: Not drawn to scale

Cement Outside Casing
Seal Assembly In Annulus

Date Last Revised: 3-Mar-13
Ross Schweitzer

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WW-9
(9/13)

API Number 47 - 77 - 00614
Operator's Well No. Gragg 203

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Mountaineer Keystone, LLC OP Code 494501227

Watershed (HUC 10) Little Sandy Creek Quadrangle Thornton 7.5'

Elevation 1500' County Preston District Reno

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

Will a pit be used? Yes ☐ No ☑

If so, please describe anticipated pit waste: _____

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

Proposed Disposal Method For Treated Pit Wastes:

3/25/14

_____ Land Application
_____ Underground Injection (UIC Permit Number _____)
_____ Reuse (at API Number _____)
_____ Off Site Disposal (Supply form WW-9 for disposal location)
_____ Other (Explain _____

Will closed loop system be used? If so, describe: Yes. It will contain all of the drilling medium and drill cuttings to be taken to landfill.

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vert: Freshwater, Horiz: water based mud

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

Additives to be used in drilling medium? Sodium Chlorie, Xanthan Gum, PAC R/SL, Caustic Soda, Soda Ash, Barite, Defoamer

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) If wet cutting, sawdust will be used.

-Landfill or offsite name/permit number? Tucker County Landfill, Davis, WV

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.

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Company Official Signature _____

Company Official (Typed Name) Nathan Skeen

Company Official Title Designated Agent

Subscribed and sworn before me this 25th day of March, 20 14

Amy L Miller Notary Public

My commission expires 3-15-2022

Official Seal
Notary Public, State Of West Virginia
Amy L Miller
1111 Van Voorhis Road Suite G
Morgantown WV 26505
My commission expires March 15, 2022

4707700614

Form WW-9

Operator's Well No. Gragg 203

Mountaineer Keystone, LLC

Proposed Revegetation Treatment: Acres Disturbed 12.6 Prevegetation pH _____

Lime 6 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 1000 lbs/acre

Mulch 3-4 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31 Tall Fescue	50	Fosters Premium Meadow Mix	50 *See attached sheet

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: [signature]

Comments: Seed & mulch ASAP

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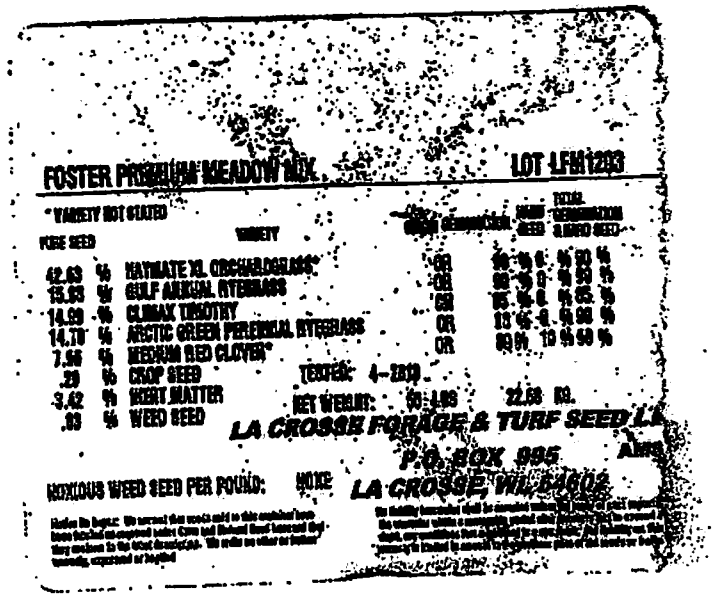
Office of Oil and Gas
WV Dept. of Environmental Protection

Title: Oil & Gas Inspector Date: 3/28/14

Field Reviewed? (✓) Yes ( ) No

4707700614



FOSTER PREMIUM MEADOW MIX LOT LFM1203

* VARIETY NOT STATED

PURE SEED		VARIETY	GRAIN GERMINATION	HARD SEED	TOTAL GERMINATION & HARD SEED
42.63	%	HAYMATE XL ORCHARDGRASS*	OR	90 %	0 % 90 %
15.93	%	GULF ANNUAL RYEGRASS	OR	90 %	0 % 90 %
14.99	%	CLIMAX TIMOTHY	OR	85 %	0 % 85 %
14.70	%	ARCTIC GREEN PERENNIAL RYEGRASS	OR	13 %	0 % 98 %
7.96	%	MEDIUM RED CLOVER*	OR	89 %	10 % 98 %
.29	%	CROP SEED	TESTED: 4-2013		
3.42	%	INERT MATTER	NET WEIGHT: 50 LBS	22.68 KG.	
.03	%	WEED SEED			

LA CROSSE FORAGE & TURF SEED LLC

P.O. BOX 995 AMS

NOXIOUS WEED SEED PER POUND: NONE **LA CROSSE, WI 54602**

Notice to Buyer: We warrant that seeds sold to this container have been tested as required under Crop and Natural Seed Laws and that they conform to the latest description. We make no other or further warranty, expressed or implied.

[illegible]

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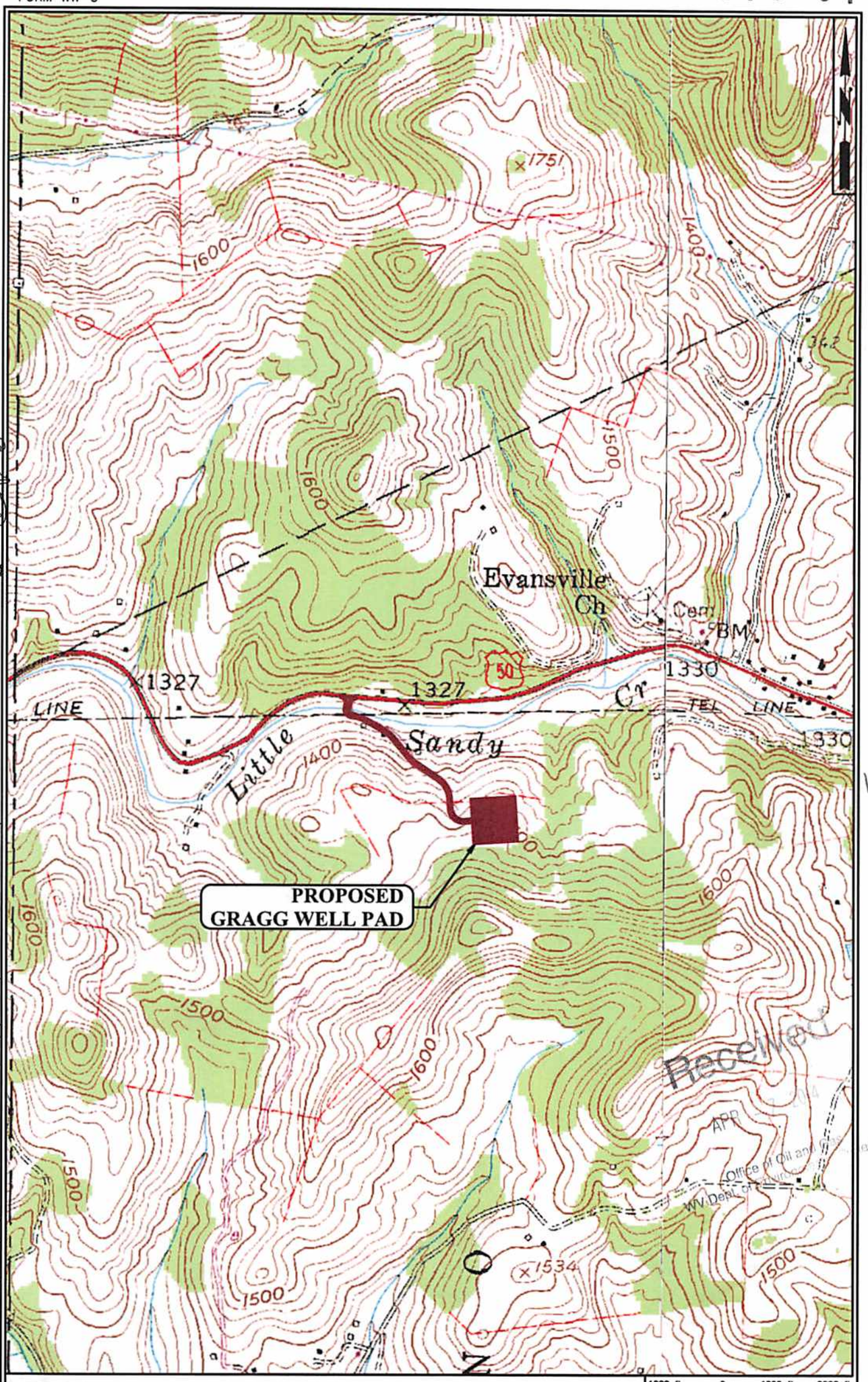
WV Dept. of Environmental Protection

FORM WW-9

4707700614



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PROJECT# 030-2476

THRASHER
THE THRASHER GROUP INC.
CIVIL • ENVIRONMENTAL • CONSULTING • FIELD SERVICES
600 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
PHONE (304) 624-4108 • FAX (304) 624-7831

Mountaineer Keystone LLC

GRAGG WELL PAD

GLADESVILLE AND FELLOWSVILLE, WV
QUAD MAPS

SHEET No.
1

CAD FILE: R:\030-2476 - Mountaineer Keystone - Gragg Well Pad\Drawing\z-2476-WW9-Cover.dwg
PLOT DATE/TIME: 3/27/2014 2:34 PM
USER: patricia a. escoriaza

FORM WW-6

MOUNTAINEER KEYSTONE
WELL NO. GRAGG 203

NOTES:
PLAT BASED ON NAD 2011 (CORS) WV STATE PLANE NORTH. GRID NORTH ELEVATIONS BASED ON GEOID 2012A. US SURVEY FEET UNLESS SHOWN OTHERWISE.

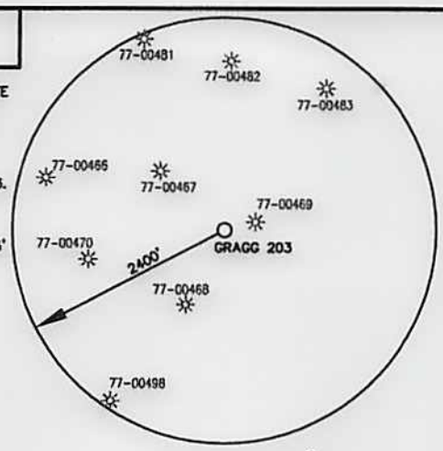
–THERE ARE NO (0) WATER WELL(S) LOCATED WITHIN 250' OF WELL GRAGG 203.

–THERE ARE NO (0) DWELLINGS OR AGRICULTURAL STRUCTURES USED FOR HOUSING LIVESTOCK WITHIN 625' OF WELL GRAGG 203.

⊙ = MONUMENT FOUND IRON REBAR UNLESS NOTED OTHERWISE.

UT = UNNAMED TRIBUTARY

–THE LEASE BOUNDARIES COINCIDE WITH SURFACE PROPERTY LINES AS REPRESENTED.



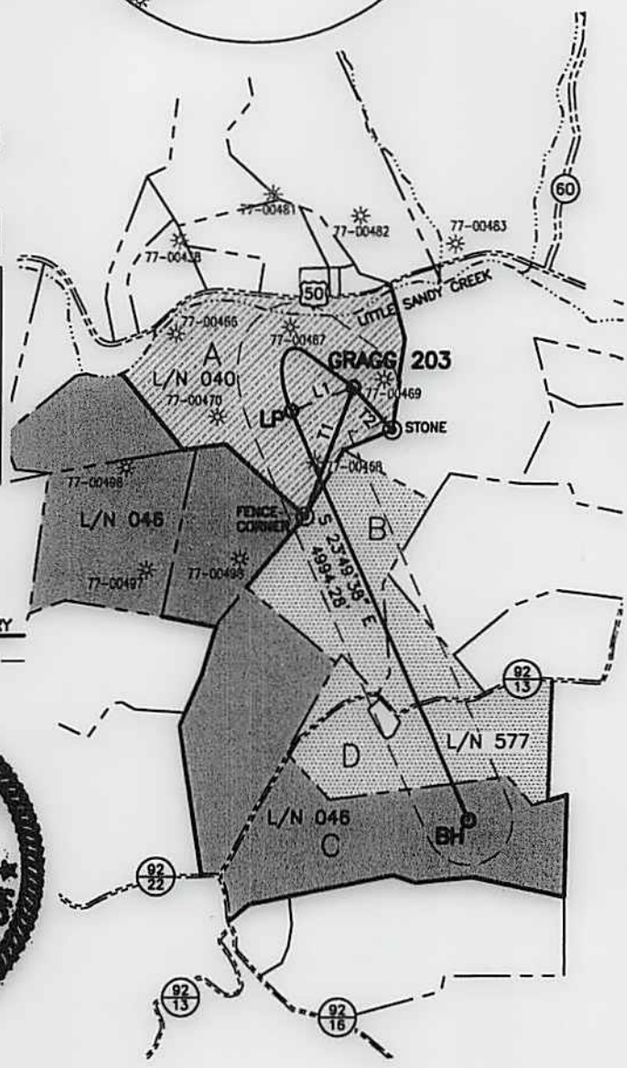
1,507' TOP HOLE
175' BOTTOM HOLE
LATITUDE 39° 20' 00"
TH
LONGITUDE 79° 52' 30"
894' TOP HOLE
5,725' BOTTOM HOLE
BH

	TM	PAR	OWNER
A	9	14.2	JAMES E. GRAGG
B	15	3	WAYNE & GLORIA WAGNER
C	15	6	JOHN & LORETTA CLARKSON
D	15	7	WAYNE & GLORIA WAGNER

L1	S69°18'05"W	754.12'

T1	N20°30'19"E	1548.4'
T2	N42°18'27"W	651.7'

REFERENCES
IRON REBAR — S58°18'41"E 501.83' — GRAGG 203
IRON REBAR — N59°20'32"E 578.08' — GRAGG 203



TH BH
DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAP

SURVEYED PROPERTY BOUNDARY
500' BUFFER

OIL & GAS ROYALTY OWNERS
L/N 040 = JAMES GRAGG
L/N 046 = JOHN BRUCE & LORETTA CLARKSON
L/N 577 = WAYNE & GLORIA WAGNER

WELL NO. GRAGG 203 TOP HOLE
UTM COORDINATES ZONE 17
(NAD 83–METER)
N:4354102.50
E:596521.08

WELL NO. GRAGG 203
LANDING POINT
UTM COORDINATES ZONE 17
(NAD 83–METER)
N:4354017.71
E:596307.49

WELL NO. GRAGG 203
BOTTOM HOLE
UTM COORDINATES ZONE 17
(NAD 83–METER)
N:4352635.94
E:596945.36

PROPOSED WELL LAYOUT
GRAGG 201 — 20' — GRAGG 202 — 20' — GRAGG 203
N80°01'59"E S89°46'05"E

MICHAEL S. WOLF LICENSED No. 2270 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

Michael S. Wolf, P.S. 2270

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

FILE NO. 030–2476
SCALE: 1"=2000'
MINIMUM DEGREE OF ACCURACY: 1 in 2500
PROVEN SOURCE OF ELEVATION: SURVEY GRADE GPS

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

DATE JULY 9 ,2014
OPERATOR'S WELL NO. MOUNTAINEER KEYSTONE GRAGG 203
API WELL NO.
47 - 077 - 00614 HSA
STATE COUNTY PERMIT

WELL TYPE: OIL ☐ GAS ☒ LIQUID INJECTION ☐ WASTE DISPOSAL ☐ (IF "GAS"), PRODUCTION ☒ STORAGE ☐ DEEP ☐ SHALLOW ☒
LOCATION: ELEVATION: 1,500.0' WATER SHED: LITTLE SANDY CREEK
DISTRICT: RENO COUNTY: PRESTON
QUADRANGLE: THORNTON 7.5' ACREAGE: 120 AC±
SURFACE OWNER: JAMES E. GRAGG LEASE ACREAGE: 456.80 AC+
OIL & GAS ROYALTY OWNER(S): JAMES E. GRAGG/JOHN & LORETTA CLARKSON/WAYNE & GLORIA WAGNER
LEASE NO. 040/046/577

THRASHER
THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304–624–4108

PROPOSED WORK: DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒
PERFORATE NEW FORMATION ☐ PLUG OFF OLD FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION: MARCELLUS SHALE ESTIMATED DEPTH: 8,359' TVD / 13,941' MD

WELL OPERATOR: MOUNTAINEER KEYSTONE, LLC.
ADDRESS: 1111 VAN VOORHIS ROAD, SUITE G
MORGANTOWN, WV 26505

DESIGNATED AGENT: NATHAN SKEEN
ADDRESS: 1111 VAN VOORHIS ROAD, SUITE G
MORGANTOWN, WV 26505

CAD FILE: L:\030–2476 – Mountaineer Keystone – Gragg Well Pad\Survey\Gragg.dwg PLOT DATE/TIME: 7/11/2014 – 10:02am LAYOUT: 203 USER: elytle