



west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Tuesday, May 25, 2021
WELL WORK PLUGGING PERMIT
Vertical Plugging

DIVERSIFIED PRODUCTION LLC
101 MCQUISTON DRIVE
JACKSON CENTER, PA 16133

Re: Permit approval for 20511
47-039-03621-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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: 20511
Farm Name: WARD, DAVID - ESTATE
U.S. WELL NUMBER: 47-039-03621-00-00
Vertical Plugging
Date Issued: 5/25/2021

PERMIT CONDITIONS

West Virginia Code § 22-6-11 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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. This well is under a consent order and must be plugged within two years of the date of issuance of this permit.

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production X or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1356.6 ft Watershed Shadrick Fork
District Cabin Creek County Kanawha Quadrangle Montgomery

6) Well Operator Diversified Production, LLC 7) Designated Agent Jeff Mast
Address P.O. Box 6070 Address P.O. Box 6070
Charleston, WV 25362 Charleston, WV 25362

8) Oil and Gas Inspector to be notified Name Terry Urban
Address P.O. Box 1207
Clendenin, WV 25045
9) Plugging Contractor Name R & J Well Services, Inc.
Address P.O. Box 40
Hueysville, KY 41640-0040

10) Work Order: The work order for the manner of plugging this well is as follows:

See Attached

*Operator to cover with Cement All Perfs & Oil
Gas bearing formations including SAH, Elevations, Coal &
Fresh water zones*

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Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector *Benny W. M...* Date 5-11-21

PLUGGING PROGNOSIS

West Virginia, Kanawha County

API # 47-039-03621

38.2438661357884, -81.3309148114891

Nearest Emergency Room: Montgomery General, 401 Sixth Ave, Montgomery, WV 25136

Casing Schedule

10 3/4" csg @ 66'

8 5/8" csg @ 815' cemented to surface w/150 sks

4 1/2" csg @ 2475' cemented w/ 50 sks est. TOC @ 1856'

TD @ 2490'

Completion: Frac

Injun 2353'-2395'

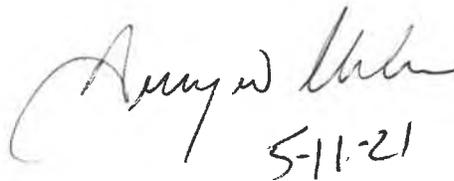
Weir 2428'-2462'

Fresh Water: none recorded**Saltwater:** 1270'**Coal:** 185', 330', 395'**Oil Show:** none reported**Gas Show:** 880', 2353'-2395' (Injun), 2428'-2462' (Weir)**Elevation:** 1333'

1. Notify inspectors, ~~Allen Powers @ 304-522-8308~~ and Terry Urban @ 304-549-5915, 48 hrs. prior to commencing operations.
2. Tag TD w/ wireline.
3. Pull stretch on 4 1/2" csg and estimate free point.
4. TIH w/ tbg to 2462'. Kill well as needed with 6% bentonite gel.
5. Pump 209' Class A cement plug from 2462'-2253' (**Injun and Weir shows**)
 - a. Tag TOC and top off as needed.
6. TOOHD w/ tbg to 2253'. Load hole with 6% bentonite gel from 2253'-1333' TOOHD LD tbg
7. Perforate 4 1/2" csg @ 1333', 1283', 1233', 880', 830', and 770'
8. TIH w/ tbg to 1333'. Pump 113' Class A cement plug from 1333'-1220' (**elevation and salt water**)
 - a. Tag TOC to ensure adequate fill up on 4 1/2" csg annulus.
9. TOOHD w/ tbg to 1220'. Pump 6% Bentonite gel from 1220'-880'.
10. TOOHD w/ tbg to 880'. Pack off tbg on 2x4 wellhead. Pump 115' Class A cement plug from 880'-765' (**gas show and 8" csg st**) Monitor circulation on 8 5/8". Tag TOC. Top off if needed. TOOHD LD tbg.
11. Pressure test 4 1/2" csg. If test passes perforate 4 1/2" csg at 445' w/ 4 shots and establish circulation on 8 5/8" csg. Once circulation is established pump 445' Class A cement plug by bull heading 4 1/2" csg and circulating out good returns on 8 5/8" csg.
 - a. If pressure test fails perforate 4 1/2" csg at 445', 395', 345', 295', 245', 195', 145', 95', and 45'. Then spot plug through tbg. (**coal and surface**)
12. Erect monument with API#, date plugged, & company name.
13. Reclaim location and road to WV-DEP specifications.

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5-11-21



Well 820511
API 47-039-03621
4703903621P

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MAR-03 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

**Oil and Gas Division
WELL RECORD**

Rotary _____ Oil _____
Cable Gas
Recycling Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Quadrangle Montgomery
Permit No. Kan-3621

Company Columbia Gas Transmission Corp.
Address P. O. Box 1273 Charleston, WV
Farm David Ward Estate Acres 8000
Location (waters) Shadrick Fk. of Hughes Ck.
Well No. 20511 Elev. 1333.59
District Cabin Creek County Kanawha
The surface of tract is owned in fee by David Ward Estate
Address P. O. Box 88 Charleston, WV 25321
Mineral rights are owned by Same
Address _____
Drilling Commenced July 17, 1981
Drilling Completed October 29, 1981
Initial open flow 79 MCF cu. ft. _____ bbls
Final production 855 M cu. ft. per day _____ bbls
Well open 6 hrs. before test 425 RP
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill-up Cu. ft. (Sks.)
Size 20-16			
Cond 13-10 10-34"	66		
9 5/8			150 Sks to Surface
8 5/8	815	815	
7	2123		
5 1/2			
4 1/2	2475	2475	50 Sks
3			
2			
Liners Used			

Attach copy of cementing record.
Frac'd. with 500 gal acid, 433 bbls gel, 20,000 #20/40 sd
Treated at AVG 1600 psig @ 25 BPM

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Coal was encountered at 185 - 187 Feet _____ Inches
Fresh water _____ Feet _____ Salt Water 1270 Feet
Producing Sand WEIR Depth: 2428-2462
INJUN 2353-2395

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
SD & SH			0	185		
COAL			185	187		
SHALE			187	330		
COAL			330	334		
SD & SH			334	395		
COAL			395	401		
SD & SH			401	915		Show of Gas @ 880
SLATE			915	921		
SD & SH			921	1064		
SALT SAND			1064	1463		Salt Water @ 1270 ft.
SHALE & SAND			1463	1722		
LIME			1722	1737		
RED ROCK			1737	1927		
MAXON			1927	1934		
SLATE & SHALE			1934	2021		
LITTLE LIME			2021	2111		
PENCIL CAVE			2111	2120		
BIG LIME			2120	2353		
INJUN			2353	2395		Show of Gas
SLATE & SHALE			2395	2428		Gauged 79 Mcf @ T.D.
WEIR			2428	2462		Show of Gas
SLATE & SHALE			2462	2490		TD

* Indicates Electric Log tops in the remarks section.

WW-4A
Revised 6-07

1) Date: March 23, 2021
2) Operator's Well Number 820511
3) API Well No.: 47 - 039 - 03621

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

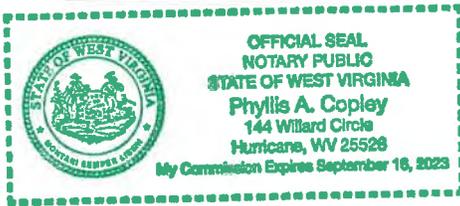
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>David Ward Estate, C/O James F. Brown IV</u>	Name _____
Address <u>P.O. Box 88</u>	Address _____
<u>Charleston, WV 25321</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Robln Land - Attention: James Eagan</u>
	Address <u>500 Hale Street</u>
	<u>East Charleston, WV 25301</u>
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Terry Urban</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 1207</u>	Name <u>No Declaration</u>
<u>Clendenin, WV 25045</u>	Address _____
Telephone <u>304-549-5915</u>	

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator: Diversified Production, LLC
 By: [Signature] Jeff Mast
 Its: Director Production
 Address: P.O. Box 6070
Charleston, WV 25362
 Telephone: 304-543-6988

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Office of Oil and Gas

Subscribed and sworn before me this 29th day of March, 2021
Phyllis A. Copley Notary Public
 My Commission Expires September 16, 2023

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WV Department of Environmental Protection

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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Charleston, WV 25301

OFFICIAL USE

Certified Mail Fee	\$3.60	0523
Extra Services & Fees (check box, add fee as appropriate)	\$2.85	03
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00	
<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$1.40	
Total	\$7.85	05/03/2021

Postmark Here

520511 P&A

Robin Land
Attention: James Eagan
500 Hale Street
East Charleston, 25301

PS Instructions

7019 1640 0000 1003 4916

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For delivery information, visit our website at www.usps.com®.

Charleston, WV 25321

OFFICIAL USE

Certified Mail Fee	\$3.60	0523
Extra Services & Fees (check box, add fee as appropriate)	\$2.85	03
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00	
<input type="checkbox"/> Return Receipt (electronic)	\$0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00	
<input type="checkbox"/> Adult Signature Required	\$0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00	
Postage	\$1.40	
Total Post	\$7.85	05/03/2021

Postmark Here

520511 P&A

David Ward Estate
C/O James F. Brown IV
P.O. Box 88
Charleston, WV 25321

PS Form Instructions

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WV Department of Environmental Protection

05/28/2021

4703903621P

WW-9
(5/16)

API Number 47 - 039 - 03621
Operator's Well No. 320511

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Diversified Production, LLC OP Code 494524121

Watershed (HUC 10) Shadrick Fork (0505000603) Quadrangle Montgomery

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 *M*

If so, please describe anticipated pit waste: Produced fluid and cement returns

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number 47-119-00724)
- 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: N/A

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

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

Additives to be used in drilling medium? N/A

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

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

-Landfill or offsite name/permit number? N/A

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

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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) Jeff Mast
Company Official Title Director Production



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Office of Oil and Gas

Subscribed and sworn before me this 29th day of March 2021, 2021

Phyllis A. Copley Notary Public

My commission expires September 16, 2023

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WV Department of
Environmental Protection

05/28/2021

Proposed Revegetation Treatment: Acres Disturbed 1 +/- Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 or equivalent

Fertilizer amount _____ lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Red Fescue	40
Alsike	5
Annual Rye	15

Seed Type	lbs/acre
Red Fescue	15
Alsike Clover	5

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

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Title: _____

Inspector Oil & Gas

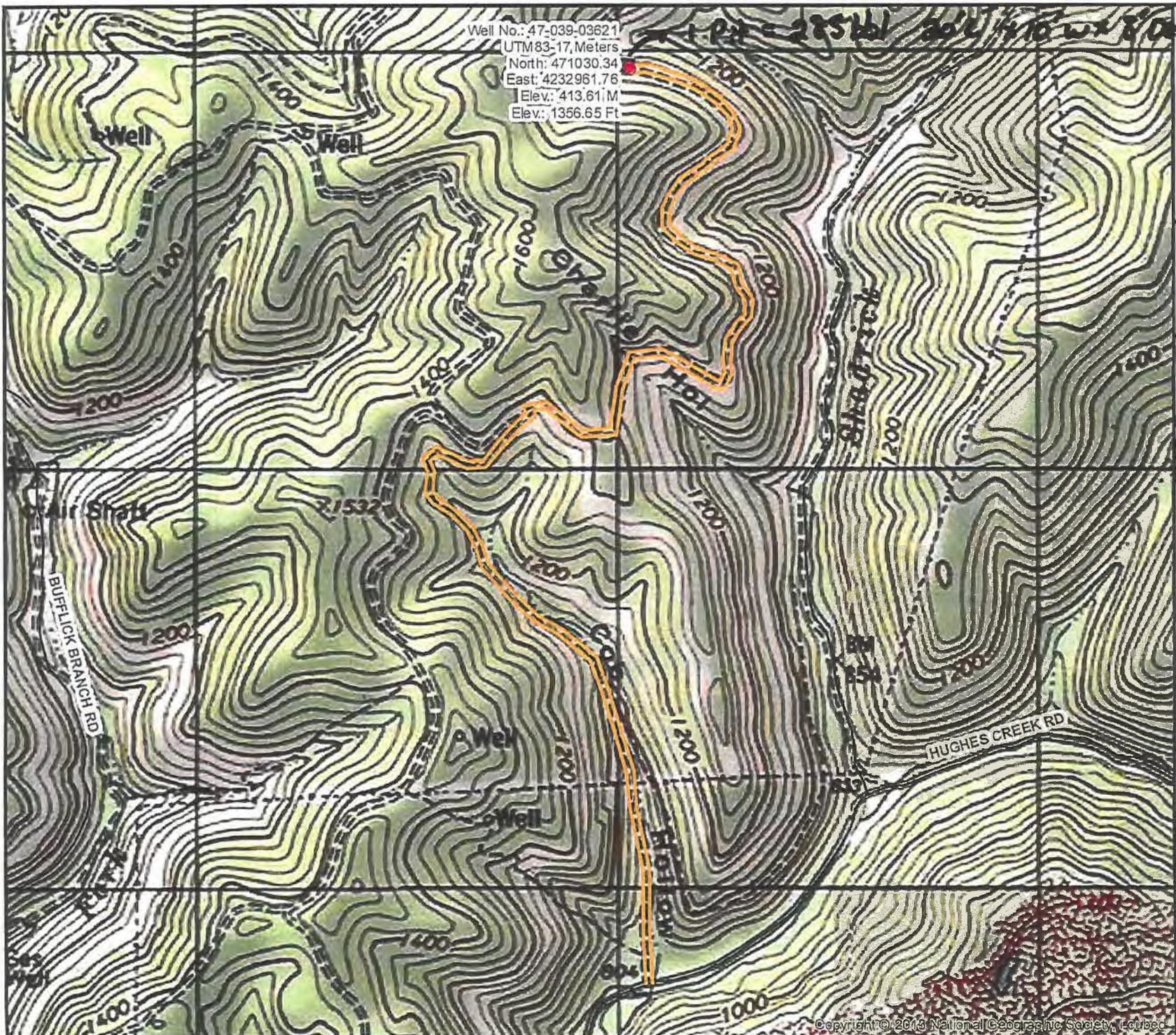
Date: _____

5-11-21

Field Reviewed? _____

Yes

No



Well No.: 47-039-03621
 UTM83-17, Meters
 North: 471030.34
 East: 4232961.76
 Elev.: 413.61 M
 Elev.: 1356.65 Ft

1 Pad = 28561 20' x 15' x 8' Deep



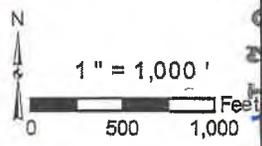
Diversified Gas & Oil Corporation
 100 Diversified Way
 Pikeville KY, 41051

47-039-03621

Plugging Map

Legend

- Well
- Access Road
- Pits
- Pad
- Public Roads



4703903621

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-039-03621 WELL NO.: 820511
 FARM NAME: David Ward Estate
 RESPONSIBLE PARTY NAME: Diversified Production LLC
 COUNTY: Kanawha DISTRICT: Cabin Creek
 QUADRANGLE: Montgomery
 SURFACE OWNER: David Ward Estate
 ROYALTY OWNER: David Ward Heirs Et Al
 UTM GPS NORTHING: 4,232,961.76
 UTM GPS EASTING: 471,030.34 GPS ELEVATION: 1356.6'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS : Post Processed Differential

Real-Time Differential

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

 Director Production 03/19/2021
 Signature Title Date

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