



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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Thursday, April 8, 2021  
WELL WORK PERMIT  
Vertical / Re-Work

HG ENERGY, LLC  
5260 DUPONT ROAD  
PARKERSBURG, WV 26101

Re: Permit approval for OLIVER HILL NO. 501  
47-043-03575-00-00

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: OLIVER HILL NO. 501  
Farm Name: D. ARTHUR RAYBOURN & M  
U.S. WELL NUMBER: 47-043-03575-00-00  
Vertical Re-Work  
Date Issued: 4/8/2021

Promoting a healthy environment.

04/09/2021

## 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

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1. 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 §22-6-20, 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.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced, drilling ceased, 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 within 30 days of commencement of drilling.

4704803575W

FORM WW-3 (B)  
1/12



1) Date: 10/30/2020  
 2) Operator's Well No. Oliver Hill 501  
 3) API Well No.: 47 - Lincoln - 03575  
 State County Permit  
 4) UIC Permit No. UIC2R04302AP

STATE OF WEST VIRGINIA  
 NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION  
 FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

5) WELL TYPE: Liquid Injection  / Gas Injection (not storage)  / Waste Disposal   
 6) LOCATION: Elevation: 721' Watershed: Bear Fork  
 District: Duval County Lincoln Quadrangle Griffithsville 7.5'  
 7) WELL OPERATOR: HG Energy, LLC 8) DESIGNATED AGENT Diane White  
 Address 5260 Dupont Road Address 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101  
 9) OIL & GAS INSPECTOR TO BE NOTIFIED 10) DRILLING CONTRACTOR  
 Name Terry Urban Name To Be Determined Upon Approval of Permit  
 Address P. O. Box 1207 Address \_\_\_\_\_  
Clendenin, WV 25045

11) PROPOSED WELL WORK Drill  / Drill deeper  / Redrill  / Stimulate   
 Plug off old formation  / Perforate new formation  / Convert   
 Other physical change in well (specify) \_\_\_\_\_

12) GEOLOGIC TARGET FORMATION Berea Depth 2320 Feet (top) to 2332 Feet (bottom)

13) Estimated Depth of Completed Well, (or actual depth of existing well): 2445.2' Feet

14) Approximate water strata depths: Fresh 15', 25', 40' Feet Salt 950' Feet

15) Approximate coal seam depths: 264' - 272'

16) Is coal being mined in the area? Yes \_\_\_\_\_ No \_\_\_\_\_

17) Virgin reservoir pressure in target formation 1250 psig Source Estimated

18) Estimated reservoir fracture pressure 2650 psig (BHFP)

19) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 BBL Bottom hole pressure 2400 psi

20) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES Fresh water, produced water,  
 bactericides and other chemicals as needed to maintain water quality and improve oil recovery.

21) FILTERS (IF ANY) Cartridge filters

22) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL \_\_\_\_\_

23) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL -UP OR SACKS (CU. FT.)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For Drilling	Left In Well		
Conductor	13 3/8"	LS			x	28.6'	28.6'	Sand in	RECEIVED Office of Oil and Gas DEC - 3 2020 WV Department of Environmental Protection
Fresh Water	7"	LS	17#	x		338'	338'	CTS	
Coal									Sizes
Intermediate									2.375'
Production	4 1/2"	J-55	10.5#	x		2445.2'	2445.2'	150 sks	Depths set
Tubing	2 3/8"	J-55	4.6#	x		2250'	2250'		2350'
Liners									Perforations <u>48</u>
									Top Bottom

24) APPLICANT'S OPERATING RIGHTS were acquired from CH Freeman  
 by deed \_\_\_\_\_ / lease x / other contract \_\_\_\_\_ / dated 01/01/1900 of record in the  
Lincoln County Clerk's office in Lease Book 36 Page 150

04/09/2021



State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-043-03575 County LINCOLN District DUVAL  
Quad GRIFFITHSVILLE 7.5' Pad Name OLIVER HILL Field/Pool Name GRIFFITHSVILLE  
Farm name RAYBOURN, D. ARTHUR & MARJORIE Well Number 501  
Operator (as registered with the OOG) H.G. ENERGY LLC  
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,232,551 M Easting 416,532 M  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing 4,232,717 M Easting 416,597 M

Elevation (ft) 721' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)  
N/A

Date permit issued 2/9/18 Date drilling commenced 6/11/18 Date drilling ceased 6/16/18  
Date completion activities began 6/29/18 Date completion activities ceased 7/2/18  
Verbal plugging (Y/N) N Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 15', 25', 40' Open mine(s) (Y/N) depths None  
Salt water depth(s) ft 950' Void(s) encountered (Y/N) depths None  
Coal depth(s) ft 264'- 272' Cavern(s) encountered (Y/N) depths None  
Is coal being mined in area (Y/N) N

Reviewed by: \_\_\_\_\_

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WR-35  
Rev. 8/23/13

API 47-043 - 03575 Farm name RAYBOURN, D. ARTHUR & MARJORIE Well number 501

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	15"	13 3/8"	28.6'	New	LS		Sand In
Surface	8 3/4"	7"	338.6'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2445.2'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 40 sks to surface on 7" surface cement job. Circulated Est. 10 sks to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	120	15.6	1.18	142	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	115/125	13.2/14.2	1.64/1.27	189/186	200'	8
Tubing							

Drillers TD (ft) 2524' Loggers TD (ft) 2524'  
 Deepest formation penetrated Berea Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 450'

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_  
12 Centralizers every 88 from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

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WR-35  
Rev. 8/23/13

API 47- 043 - 03575 Farm name RAYBOURN, D. ARTHUR & MARJORIE Well number 501

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	6/29/18	2320'	2332'	48	Berea

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	7/2/18	4	1295	2826	1108	1,000	145	

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Please insert additional pages as applicable.

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WR-35  
Rev. 8/23/13

API 47- 043 - 03575 Farm name RAYBOURN, D. ARTHUR & MARJORIE Well number 501

PRODUCING FORMATION(S)	DEPTHS	
Berea	2200'- 2220'	TVD 2318'- 2342' MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump  
 SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs  
 OPEN FLOW Gas \_\_\_\_\_ Oil \_\_\_\_\_ NGL \_\_\_\_\_ Water \_\_\_\_\_ GAS MEASURED BY  
 \_\_\_\_\_ mcfpd \_\_\_\_\_ bpd \_\_\_\_\_ bpd \_\_\_\_\_ bpd  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
Sand/Shale	0	264	0	264	
Pittsburgh Coal	264	272	264	272	
Sand/Shale	272	1516	272	1548	
Big Lime	1516	1692	1548	1766	
Big Injun	1692	1790	1766	1876	
Shale	1790	2179	1876	2296	
Coffee Shale	2179	2200	2296	2318	
Berea	2200	2220	2318	2342	Drilled directional N 20.6° E a distance of 612'
Shale	2220	2390	2342	2524	
TD	2390		2524		

Please insert additional pages as applicable.

Drilling Contractor Noah Horn Well Drilling  
 Address 1070 Sandy Valley Lane City Vansant State VA Zip 24656

Logging Company Weatherford International  
 Address 13211 Old Hwy 50 City Flora State IL Zip 62839

Cementing Company Petroset Services  
 Address P.O. Box 1076 City Wooster State OH Zip 44691

Stimulating Company Producers Service Corp.  
 Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heidman Telephone 304-420-1107  
 Signature *Roger Heidman* Title Operations Manager Date 7/16/18

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Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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4704303575W

FORM WW-3 (A)  
1/12



1) Date: October 30, 2020  
2) Operator's Well No. Oliver Hill 501  
3) API Well No.: 47 - 043 - 03575  
State County Permit  
4) UIC Permit No. UIC2R04302AP

STATE OF WEST VIRGINIA  
NOTICE OF LIQUID INJECTION OF WASTE DISPOSAL WELL WORK PERMIT APPLICATION  
FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS,

5) Surface Owner(S) To Be Served	7) (a) Coal Operator
(a) Name <u>D. Arthur Raybourne &amp; Marjorie Raybourne (L.E.)</u>	Name <u>NA</u>
Address <u>805 Windgate Court</u>	Address _____
<u>Villa Hills, KY 41017</u>	_____
(b) Name _____	7) (b) Coal Owner(S) With Declaration Of Record
Address _____	Name <u>NA</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Terry Urban</u>	7) (c) Coal Lessee with Declaration Of Record
Address <u>P. O. Box 1207</u>	Name <u>NA</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 For A Liquid Injection or Waste Disposal Well Work Permit on Form WW-3(B), which sets out the parties involved in the drilling or other work;
- (2) The plat (surveyor's map) showing the well location on Form WW-6; and
- (3) The Construction and Reclamation Plan on Form WW-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

The date proposed for the first injection or waste disposal is \_\_\_\_\_ 20 20 .

THE REASON YOU HAVE RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION [(FORM WW-3(B))] DESIGNATED TO YOU. HOWEVER YOU ARE NOT REQUIRED TO TAKE 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 Well Work Permit with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to a well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan 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 the mailing or delivery to the Chief.

The person signing this document shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document 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 HG Energy, LLC  
Address 5260 Dupont Road  
Parkersburg, WV 26101  
By: Diane White  
Its: Agent  
Signature: Diane White

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**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

4704303575W

October 30, 2020

D. Arthur Raybourne & Marjorie Raybourne (L.E.)  
805 Windgate Court  
Villa Hills, KY 41017

RE: Oliver Hill No. 501  
Duval District, Lincoln County  
West Virginia

Dear Landowner:

Enclosed are copies of various application papers that we have filed with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because the well or other anticipated disturbance is located on your surface property. Your rights as a landowner are detailed in the enclosed permit application papers.

No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

*Diane White*

Diane C. White

Enclosures

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**OFFICIAL**  
 PARKERSBURG WV

Postmark: NOV 03 2020

Sent To: D Arthur Raybourne, Margan & Raybourne (LE)

Street and Apt. No., or PO Box No.: 808 Windgate Court

City, State, ZIP+4: Villa Hills KY 40317

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Extra Services & Fees (check box, add fee as appropriate)	\$
<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$
Postage	\$
Total Postage and Fees	\$ 251.85

Certified Mail Fee: 1.75

7019 2280 0000 1287 1754

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WW-2B1  
(5-12)

Well No. Oliver Hill No. 501

West Virginia Department of Environmental Protection  
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name	<u>Sturm Environmental</u>
Sampling Contractor	<u>Sturm Environmental</u>

Well Operator	<u>HG Energy, LLC</u>
Address	<u>5260 Dupont Road</u>
	<u>Parkersburg, WV</u>
Telephone	<u>304-420-1119</u>

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

\* Not Applicable \*

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04/09/2021

470 43 035 75w

WW-2A / 3A Surface Waiver

SURFACE OWNER WAIVER

County Lincoln Operator HG Energy, LLC
Operator well number Oliver Hill 501

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A / 3A

The well operator named on page WW-2A / 3A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

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

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have FIFTEEN (15) 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.

Comments must be in writing. Your comments must 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.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
2) The soil erosion and sediment control plan is not adequate or effective;
3) Damage would occur to publicly owned lands or resources;
4) The proposed well work fails to protect fresh water sources or supplies;
5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A / 3A, and attachments consisting of pages 1 through \_\_\_ including a work order on Form WW-2B / 3A, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION

Signature Date
03575

Company Name By Its

Print Name

Signature Date

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DEC - 3 2020

WV Department of Environmental Protection

04/09/2021



WW-9  
(2/15)

API Number 47 - 043 - 03575

Operator's Well No. Oliver Hill No. 501

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy, LLC OP Code UIC2R04302AP

Watershed (HUC 10) Bear Fork Quadrangle Griffithville 7.5'

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

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: No fluids are anticipated, if there are any, they'll be disposed of off site

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

Proposed Disposal Method For Treated Pit Wastes: 11-23-20

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain No waste anticipated, should there be any fluids they'll be hauled to an approved disposal site)

Will closed loop system be used? If so, describe: No

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

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

Additives to be used in drilling medium? NA

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

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

-Landfill or offsite name/permit number? NA at this time

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

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

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

Company Official Signature Diane White

Company Official (Typed Name) Diane White

Company Official Title Agent

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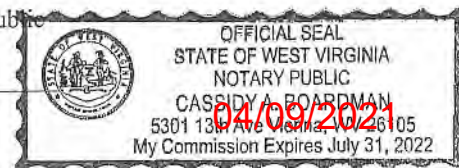
DEC - 3 2020

WV Department of  
Environmental Protection

Subscribed and sworn before me this 30th day of October, 20 20

Cassidy Boardman Notary Public

My commission expires 7/31/2022



HG Energy, LLC

Proposed Revegetation Treatment: Acres Disturbed .25 Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Straw 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5

**\*\*Sediment Control Will Be Maintained At All Times\*\***

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: *Angus Miller*

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

Title: *Inspart Oil & Gas*

Date: *11-23-20*

Field Reviewed?  Yes  No

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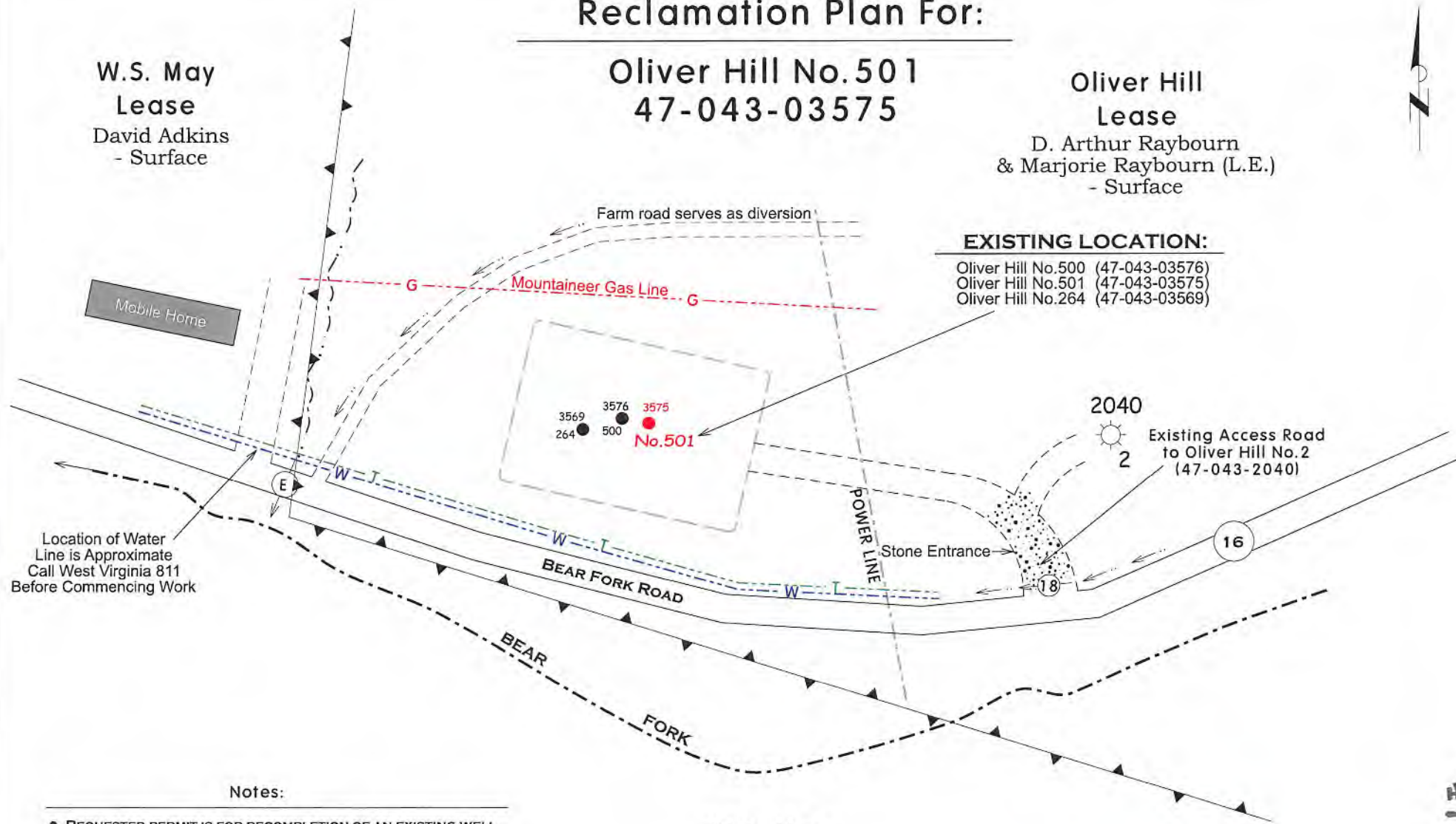
# Reclamation Plan For:

**Oliver Hill No. 501**  
47-043-03575

**Oliver Hill**  
**Lease**

D. Arthur Raybourn  
& Marjorie Raybourn (L.E.)  
- Surface

**W.S. May**  
**Lease**  
David Adkins  
- Surface



**EXISTING LOCATION:**

Oliver Hill No. 500 (47-043-03576)  
Oliver Hill No. 501 (47-043-03575)  
Oliver Hill No. 264 (47-043-03569)

Location of Water Line is Approximate  
Call West Virginia 811  
Before Commencing Work

**Notes:**

- REQUESTED PERMIT IS FOR RECOMPLETION OF AN EXISTING WELL.
- ACCESS ROADS ARE EXISTING AND WILL BE MAINTAINED TO WVDEP STANDARDS.
- NO EARTHWORK IS ANTICIPATED FOR REQUESTED WELL WORK.
- NO PIT WILL BE REQUIRED FOR REQUESTED WELL WORK.
- ANY DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- DRAWING NOT TO SCALE.

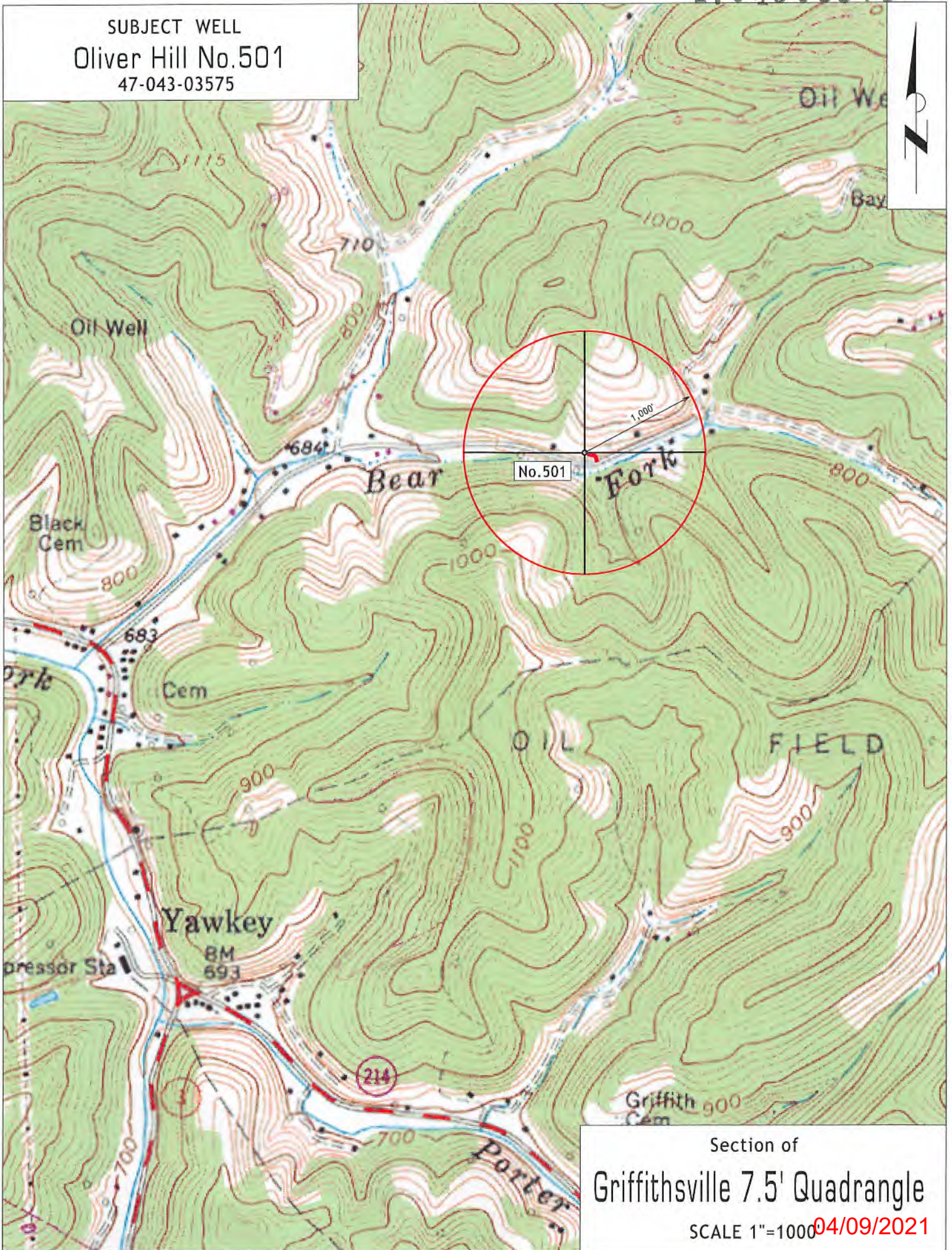
**W.S. May**  
**Lease**  
David Adkins  
- Surface

**NOTE**  
REFER TO THE WVDEP  
EROSION AND SEDIMENT CONTROL  
FIELD MANUAL VER. MAY 2012 FOR  
BMPs CONTROLLING EROSION AND  
SEDIMENT FROM SOIL-DISTURBING  
OPERATIONS.

4704303575W



SUBJECT WELL  
Oliver Hill No.501  
47-043-03575



Section of  
Griffithsville 7.5' Quadrangle  
SCALE 1"=1000 04/09/2021



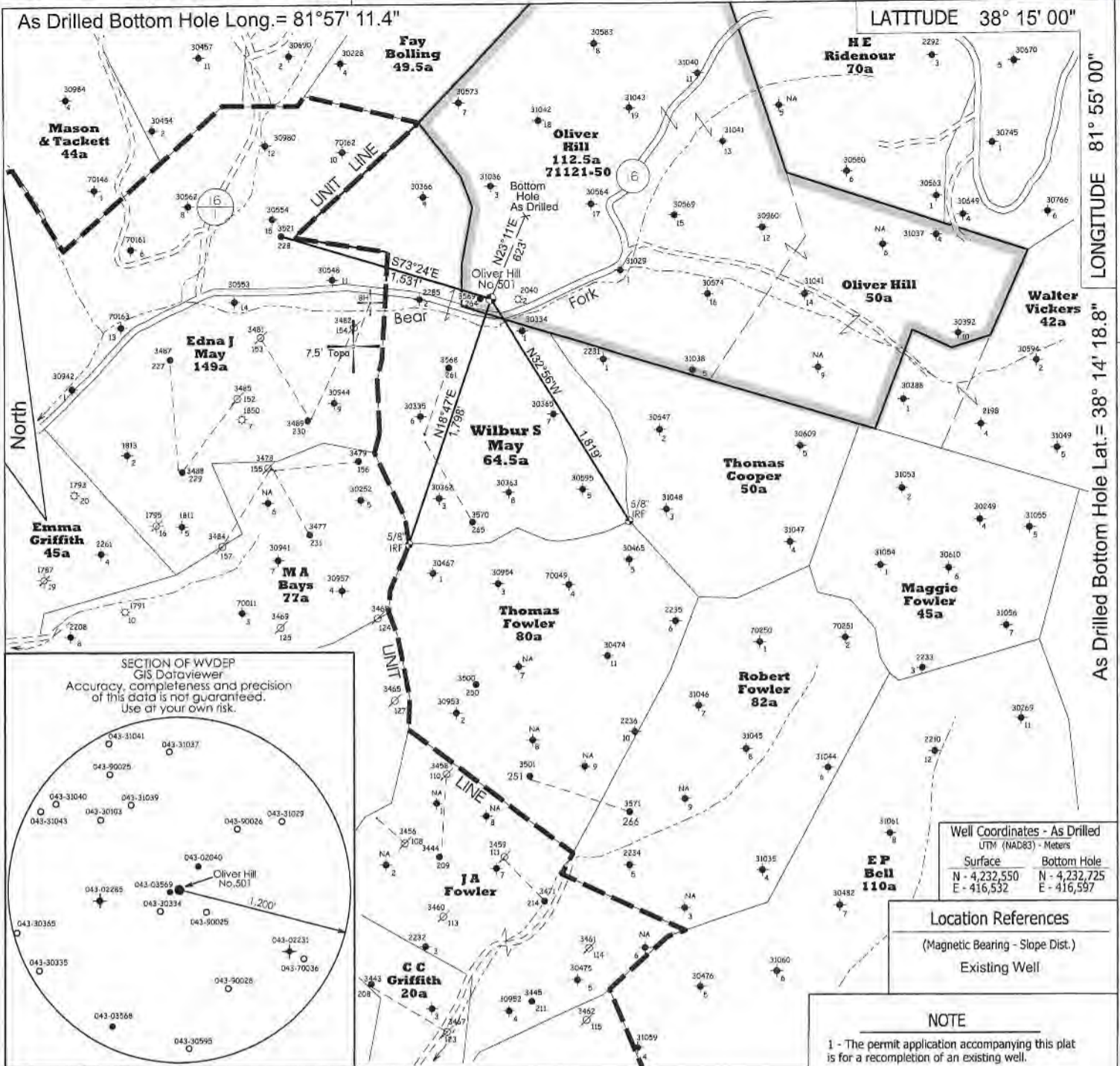
As Drilled Longitude = 81°57' 14.06"

10,695'

4704303575W

As Drilled Bottom Hole Long. = 81°57' 11.4"

LATITUDE 38° 15' 00"

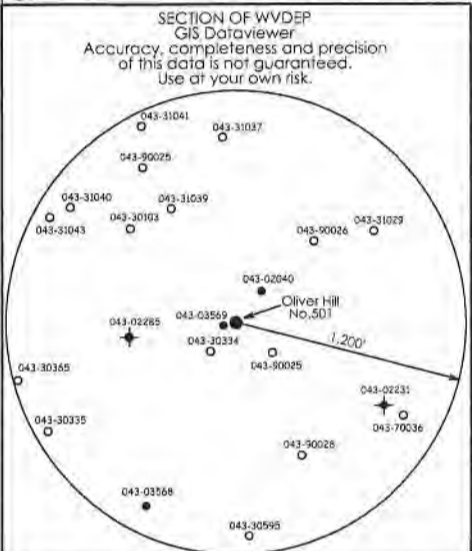


LONGITUDE 81° 55' 00"

As Drilled Bottom Hole Lat. = 38° 14' 18.8"

4,740'

As Drilled Latitude = 38° 14' 13.15"



Well Coordinates - As Drilled UTM (NAD83) - Meters	
Surface	Bottom Hole
N - 4,232,550 E - 416,532	N - 4,232,725 E - 416,597

Location References	
(Magnetic Bearing - Slope Dist.)	Existing Well

**NOTE**

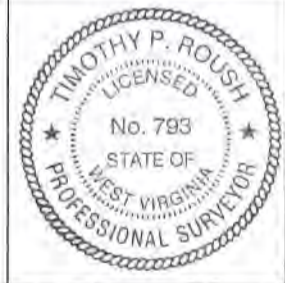
- 1 - The permit application accompanying this plat is for a recompletion of an existing well.
- 2 - The drawing shown hereon is from the original drilling permit application, plat dated 10/31/2017. Present plat has been updated to reflect as-drilled Lat./Long. and current surface ownership.

- ◆ - DENOTES A POSSIBLE WATER SUPPLY SOURCE LOCATED FROM CIRCA 2003 AERIAL PHOTOGRAPHY - NOT BY SURVEY. OTHER SOURCES MAY BE PRESENT.
- ⊕ - DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

FILE NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY Sub-Meter  
 PROVEN SOURCE OF ELEVATION DGPS Survey  
 (Sub-Meter Mapping Grade)

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) *Timothy P. Roush*  
 TIMOTHY P. ROUSH PS 793



WEST VIRGINIA  
 Division of Environmental Protection  
 Office of Oil and Gas  
 601 57th Street  
 Charleston, West Virginia 25301



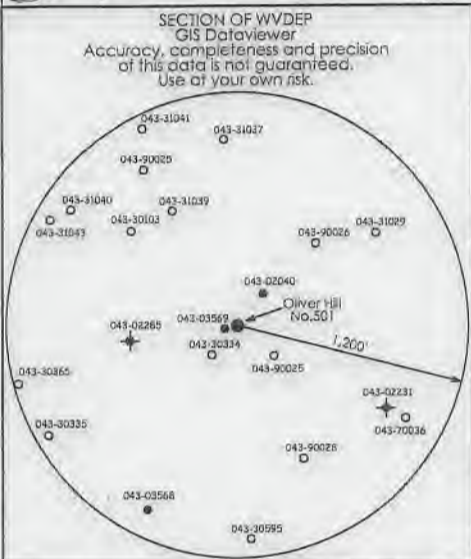
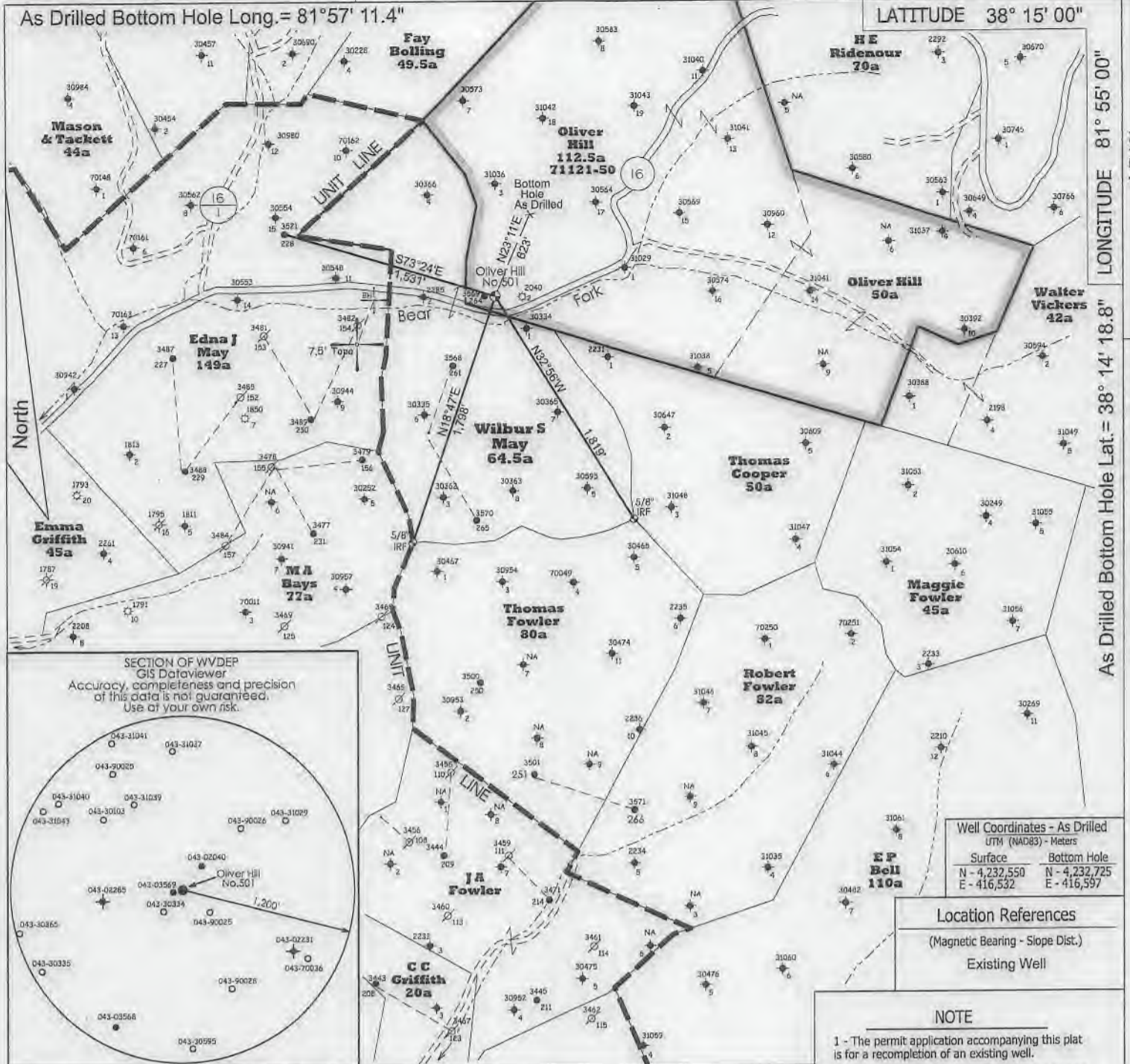
DATE October 9, 2020  
 FARM Oliver Hill No. 501  
 API WELL NO. 47 - 043 - 03575W

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION  WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 721' WATERSHED Bear Fork  
 DISTRICT Duval COUNTY Lincoln  
 QUADRANGLE Griffithsville 7.5'  
 SURFACE OWNER D. Arthur Raybourn & Marjorie Raybourn (L.E.) ACREAGE 161 Ac.  
 OIL & GAS ROYALTY OWNER D. Arthur Raybourn et al. LEASE ACREAGE 253 Ac. LEASE NO. 71121-50  
 PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION Berea ESTIMATED DEPTH TMD - 2,524'  
 WELL OPERATOR HG Energy LLC. DESIGNATED AGENT Diane White  
 ADDRESS 5260 DuPont Road ADDRESS 5260 DuPont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101

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 DEC - 3 2020  
 WV Department of Environmental Protection

FORM IV-6





Well Coordinates - As Drilled	
UTM (NAD83) - Meters	
Surface	Bottom Hole
N - 4,232,550	N - 4,232,725
E - 416,532	E - 416,597

Location References	
(Magnetic Bearing - Slope Dist.)	
Existing Well	

**NOTE**

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⊥ - DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

FILE NO. \_\_\_\_\_

SCALE 1" = 1000'

MINIMUM DEGREE OF ACCURACY Sub-Meter

PROVEN SOURCE OF ELEVATION DGPS Survey  
(Sub-Meter Mapping Grade)

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) *Timothy P. Roush*  
TIMOTHY P. ROUSH PS 793



WEST VIRGINIA  
Division of Environmental Protection  
Office of Oil and Gas  
601 57th Street  
Charleston, West Virginia 25301



DATE October 9, 2020

FARM Oliver Hill No.501

API WELL NO. 47 - 043 - 03575W

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION X WASTE DISPOSAL \_\_\_  
(IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_

LOCATION: ELEVATION 721' WATERSHED Bear Fork  
DISTRICT Duval COUNTY Lincoln  
QUADRANGLE Griffithsville 7.5'

SURFACE OWNER D. Arthur Raybourn & Marjorie Raybourn (L.E.) ACREAGE 161 Ac.  
OIL & GAS ROYALTY OWNER D. Arthur Raybourn et al. LEASE ACREAGE 253 Ac. 04/09/2021  
LEASE NO. 71121-50

PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR  
STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW  
FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_

TARGET FORMATION Berea ESTIMATED DEPTH TMD - 2,524'

WELL OPERATOR HG Energy LLC. DESIGNATED AGENT Diane White  
ADDRESS 5260 DuPont Road ADDRESS 5260 DuPont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101





**HG Energy, LLC**  
5260 Dupont Road  
Parkersburg, WV 26101  
(304) 420-1100 - Office  
(304) 863-3172 - Fax

4704303575w

October 30, 2020

Mr. Jeff McLaughlin  
WVDEP  
Division of Oil & Gas  
601 57<sup>th</sup> Street  
Charleston, West Virginia 25304

RE: Oliver Hill No. 501  
Duval District, Lincoln County  
West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to stimulate an injection well. Also enclosed is our check in the amount of \$500.00 to cover the associated permit fees.

Very truly yours,

*Diane White*

Diane C. White

CK# 4816  
Amt \$ 500  
Date 11/5/20

Enclosures

cc: D. Arthur Raybourne & Marjorie Raybourne (L.E.) – Certified  
Terry Urban - Inspector

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WV Department of  
Environmental Protection

04/09/2021