

west virginia department of environmental protection

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

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

Monday, April 29, 2019 WELL WORK PERMIT Vertical / New Drill

HG ENERGY, LLC 5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for E.P. BELL 508

47-043-03597-00-00

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: E.P. BELL 508

Farm Name: HG ENERGY, LLC

U.S. WELL NUMBER: 47-043-03597-00-00

Vertical New Drill Date Issued: 4/29/2019

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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. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

CONDITIONS

- 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 on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

05/03/2019

FORM WW-3 (B) 1/12



1)	Date: 03/25/20	19					
2)	Operator's Well	No.	E.F	P. Bell 508			
3)	API Well No.:	47	÷	Lincoln	8	s	035973
		State	-	County			Permit
1	IIIC Permit No	11000					

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

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) OIL & GAS IN	SPECTO	R TO BE	NOTIFI	ED		10) DRILLIN			
Vame Jeffery	Smith			×			Be Determined	Upon Approval	of Permit APR 9 2019
ddress 5369 Bi	ig Tyler Road					Address			- The Transfer
Cross La	anes, WV 25	313		_					WV Department of Environmental Protection
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GEOLOGIC Stimated Dep	tARGET	PORMA	Vell (or a	etual de	oth of evis			Feet	1 to 2002 Test (bottom)
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FORM WW-3 (A) 1/12



Date:	March 25,	2019			-	
2) Operato	or's Well	No.	E. P. Be	ell 508		
3) API We	ell No.:	47	. d	43	-	03597
		State		County		Permit
4) UIC Per	mit No.	UIC2R	04302AF			

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 Ow	ner(5) to be served	7) (a) Coal Operator	
(a) Name	HG Energy, LLC Walkely	Name NA	
Address	5260 Dupont Road	Address	
	Parkersburg, WV 26101		
(b) Name		7) (b) Coal Owner(S) With D	Declaration Of Record
Address		Name NA	
		Address	
2.33		Nime	RECEIVED
(c) Name		Name Address	Office of Oil and G
Address		Address	APR 9 201
) Inspector	Jeffery L. Smith	7) (c) Coal Lessee with Decla	aration Of Record APR 9 2019
Address	5369 Big Tyler Road	Name NA	WV Department
Addiess	Cross Lanes, WV 25313	Address	Environmental Prote
Telephone	681-313-6743		
3) The Cons	surveyor's map) showing the well location of struction and Reclamation Plan on Form W' rosion and sediment control and for reclama-	W-9 (unless the well work is on the site and access room	ad.
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WW.	-2B1
(5-1	2)

Well No.	E. P. Bell 508

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	Sturm Environmental Labs	
Sampling Contractor	Sturm Environmental Labs	
		RECEIVED

Well Operator	HG Energy, LLC	Office of Oil and Gas
Address	5260 Dupont Road	ΔPR 9 2019
	Parkersburg, WV 26101	APR 9 2015
Telephone	304-420-1119	WV Department of
•		Environmental Protection

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.

* There are no mater mells within 2000 feet, see topo

		SURFAC	E OWNER WAIVER	3		
County	Lincoln		perator perator well nur	HG Energ		
	INSTRUCTIONS	TO SURFACE	OWNERS NAMED	ON PAGE WW2-A / 3A		
(Note: If the name appear you may be work permits		more than three ket on the land of stually receive the f you do not own who it is. Also, p DU ARE NOT RE	persons, then these or because you act ese materials.) Se any interest in the blease notify the we EQUIRED TO FILE	e materials were served ually occupy the surface e Chapter 22 of the Wes surface tract, please forw Il operator and the Office	on you bed tract. In e t Virginia C ard these m of Oil and C	cause your ither case, ode. Well naterials to
	of Oil and Gas					9 2019
Department 601 57 th St.	of Environmental Protection	1			APR	9 2015
Charleston, (304) 926-0	WV 25304				WV De Environme	partment of ental Protection
be sure of handling. If the planned Cor well operator from the approperator of the sure of	reby state that I have read for a Well Work Permit on I on Form WW-2B / 3A, a sur	r postmaster to by the well opera aterials, then the g. Your comme and the approximater documents, sure or condition and I constitute a hazent control plant is to protect frested a substantial ted under Chapter as it is is to is to protect frested under Chapter as it is is to is to protect frested under Chapter as it is is to is to protect frested under Chapter as it is is to is to protect frested under Chapter as it is is to is to protect frested under Chapter as it is is to	ensure adequate tor and you have si permit may be issue that must include you hate location of the ich as sketches, may well work permit battered to the safety of some sources; in water sources; in water sources or sources or a violation of a prever 22, and has failed sued or a copy of the company of the surface owners at A, and attachments and and erosion plants.	delivery time or to arranged a "voluntary statemed at any time. our name, address and to proposed well site includings or photographs to supsed on comments on the persons. Iffective; Supplies; If to abate or seek review of the order denying the control of water testing laboratoric the Chief to obtain a control of the control of th	ge special ent of no ob elephone nu ing district a port your co following gr dial violation of the viola permit, you es which you copies of a rough ork on my si	expedited bjection" to sumber, the and county promisents. Frounds: In of one or tion". Four should but can hire such a such
FOR EXEC	UTION BY A NATURAL PE	RSON	FO	R EXECUTION BY A CO	RPORATIO	N, ETC.
	0.0.300000000	Date	Company Name	HG Energy, LLC		
	Signature		Ву	Eric Gravson		Dete
	24-1		Its	Vice President		Date 3/25/19
	Print Name			- Tuestage		
				Signature		Date

05/03/2019

WW-9 (2/15)

My commission expires 11 / 2 / 2021

API Number 47 - <u>43</u> - <u>03597</u> Operator's Well No. E. P. Bell 508

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

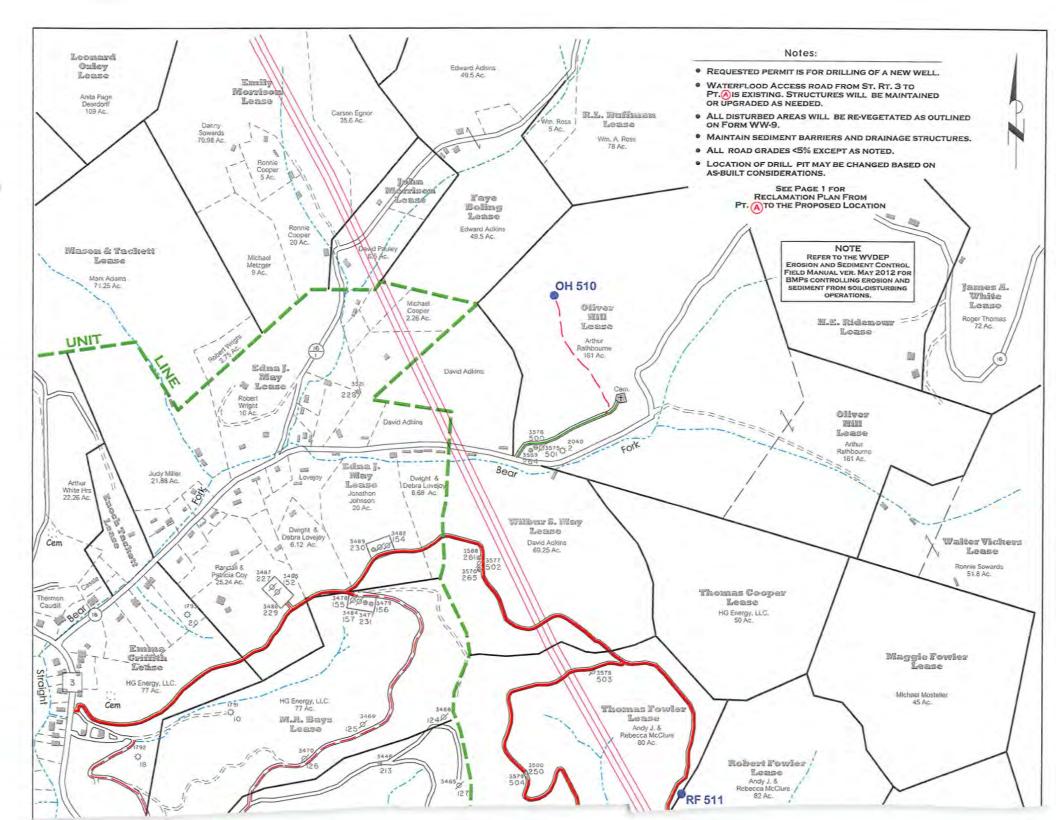
Operator Name HG Energy, LLC	OP Code 494497948	
Watershed (HUC 10) Porter Fork	Quadrangle Griffithsville 7.5'	7
Do you anticipate using more than 5,000 bbls of water to	complete the proposed well work? Yes No	\checkmark
Will a pit be used? Yes V No		
If so, please describe anticipated pit waste: FI	luids encountered while drilling the well	
Will a synthetic liner be used in the pit? Yes	✓ No If so, what ml.? 20 mil	
Proposed Disposal Method For Treated Pit Was	stes:	
Land Application		
Underground Injection (UIC	Permit Number	
Reuse (at API Number	rm WW-9 for disposal location)	
Other (Explain Fluids will be stor	red and removed to an approved disposal location. No land application of fluids	s will take place.
Will closed loop system be used? If so, describe: No		
Drilling medium anticipated for this well (vertical and he	orizontal)? Air, freshwater, oil based, etc. Air and Fresh V	Vater
-If oil based, what type? Synthetic, petroleum,		
Additives to be used in drilling medium? Water, Soap, K	CI	
Drill cuttings disposal method? Leave in pit, landfill, re-	moved offsite, etc. Approved offsite disposal	RECEIVED Office of Oil and Gas
-If left in pit and plan to solidify what medium		APR 9 2019
-Landfill or offsite name/permit number? To Be		
		WV Department of Environmental Protection
Permittee shall provide written notice to the Office of Or West Virginia solid waste facility. The notice shall be prwhere it was properly disposed.	il and Gas of any load of drill cuttings or associated waste rovided within 24 hours of rejection and the permittee sha	ll also disclose
on August 1, 2005, by the Office of Oil and Gas of the V provisions of the permit are enforceable by law. Violatlaw or regulation can lead to enforcement action. I certify under penalty of law that I have per application form and all attachments thereto and that	ns and conditions of the GENERAL WATER POLLUTION West Virginia Department of Environmental Protection. It it is a familiar with the information of the general permit and resonally examined and am familiar with the information it, based on my inquiry of those individuals immediate ion is true, accurate, and complete. I am aware that the possibility of fine or imprisonment.	understand that the /or other applicable n submitted on this ely responsible for
Company Official Signature Diane L	Shote	
Company Official (Typed Name) Diane White		
Company Official Title Agent		
Subscribed and sworn before me this 25th da	y of March , 20 19 Notary Public	OFFICIAL SEAL NOTARY PUBLIC. STATE OF WEST V MARK J SCHALL H G Energy L L C PO Box 5519, Wenng, WZ 2510

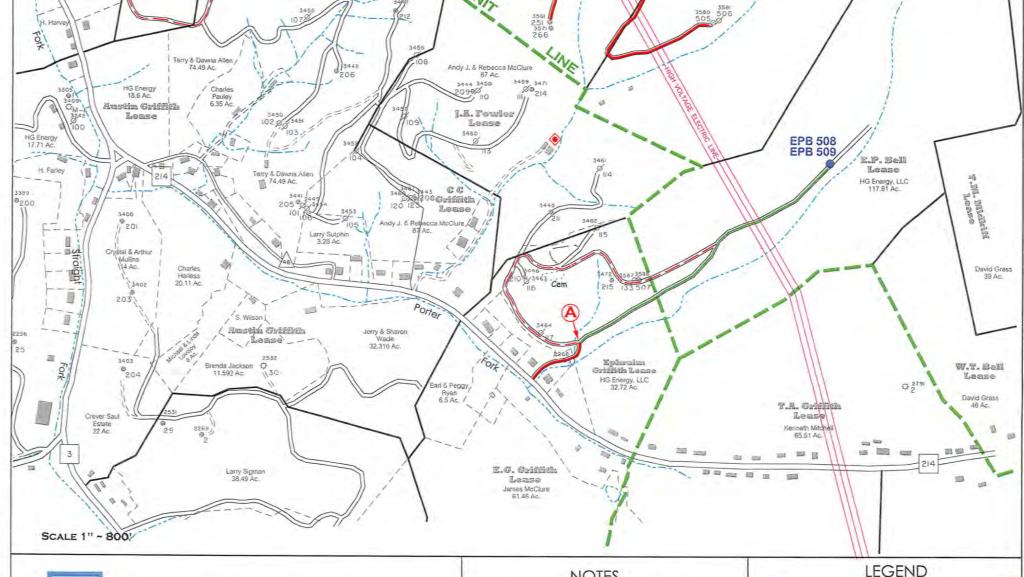
Operator's Well No. E. P. Bell 508

Proposed Revegetation Treat	ment: Acres Disturbed 0.5 a	acres Prevegetation pF	I
Lime_ 3	Tons/acre or to correct to p	_{oH} _ 6.5	
Fertilizer type 10-	-20-20 or equivalent		
Fertilizer amount	500	_lbs/acre	
Mulch_ Straw	2 _{Ton}	s/acre	
	Se	eed Mixtures	
Te	emporary	Perma	nent
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5
Attach:		Times** application (unless engineered plans in	cluding this info have bee
Attach: Drawing(s) of road, location, provided)	, pit and proposed area for land a	application (unless engineered plans in	cluding this info have bee
Attach: Drawing(s) of road, location, provided) Photocopied section of invol-	, pit and proposed area for land a ved 7.5' topographic sheet.		cluding this info have bee
Attach: Drawing(s) of road, location, provided) Photocopied section of invol	, pit and proposed area for land a ved 7.5' topographic sheet.	application (unless engineered plans in	R to release
Attach: Drawing(s) of road, location, provided) Photocopied section of invol	, pit and proposed area for land a ved 7.5' topographic sheet.	application (unless engineered plans in	cluding this info have bee
Attach: Drawing(s) of road, location, provided) Photocopied section of invol	, pit and proposed area for land a ved 7.5' topographic sheet.	application (unless engineered plans in	RECEIVE Office of Oil 2
Attach: Drawing(s) of road, location, provided) Photocopied section of invol	, pit and proposed area for land a ved 7.5' topographic sheet.	application (unless engineered plans in	RECEIVING Office of Oil a
Attach: Drawing(s) of road, location, provided) Photocopied section of involutional plan Approved by: Comments: All Sea	, pit and proposed area for land a ved 7.5' topographic sheet.	application (unless engineered plans in	RECEIV Office of Oil:

Reclamation Plan For: E.P. Bell No. 508 E.P. Bell No. 509 05/03/2019 Pit Size ~100'x15'x15' E.P. Bell Lease Lease HG Energy, LLC - Surface REFER TO THE WVDEP EROSION AND SEDIMENT CONTROL FIELD MANUAL VER. MAY 2012 FOR cui BMPs CONTROLLING EROSION AND SEDIMENT FROM SOIL-DISTURBING Location Size 8 OPERATIONS. ~80'x200' (0.4 Ac.) -800' of 5-8% Grade Use approximately 2,500° of existing access road. Upgrade to meet all WVDEP requirements. ~150' of 0-5% Grade Office of Oil and Gas APR 9 2019 -200' of 12-15% Grade WV Department of Environmental Protection 700' of 8-10% Grade -600' of 10-15% Grade To Poter Fork REQUESTED PERMIT IS FOR DRILLING OF NEW WELL. ALL ACCESS ROADS ARE EXISTING AND WILL BE UPGRADED TO WVDEP STANDARDS. NEW STRUCTURES WILL BE INSTALLED AS SHOWN. Ephraim STOCKPILE TOPSOIL FOR RE-DRESSING LOCATION DURING RECLAMATION Griffith Lease ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED HG Energy, LLC - Surface 0.1 Mi. to WV SR 214. See Page 2 for Waterflood Road Detail MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES. ALL ROAD GRADES <5% EXCEPT AS NOTED. LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS. STACK BRUSH BELOW DISTURBED AREAS FOR SEDIMENTATION CONTROL.

DRAWING NOT TO SCALE.







FEBRUARY 26, 2019

GRIIFTHSVILLE WATERFLOOD

Lincoln County, W.Va.

RECLAMATION PLAN SHOWING ROAD SYSTEMS TO BE USED FOR 2019 **DRILLING PROGRAM**

PAGE 2

NOTES

- 1. REFER TO THE WVDEP EROSION AND SEDIMENTATION CONTROL MANUAL (VER. MAY 20, 2013) FOR BMP'S CONTROLLING **EROSION AND SEDIMENTATION FROM ALL** SOIL-DISTURBING OPERATIONS.
- 2. SEE PAGE ONE OF RECLAMATION PLAN FOR DETAILS OF NEW ROAD CONSTRUCTION AND ROAD UPGRADES FROM POINT (A) TO DRILL SITE LOCATION.
- 3. EXISTING WATERFLOOD ACCESS ROADS WILL BE MAINTAINED IN PRESENT CONDITION. THESE ROADS WERE CONSTRUCTED UNDER CONDITIONS SET FORTH IN VARIOUS DRILLING PERMITS ISSUED BY WVDEP-OOG PRIOR TO 2015 (AS SHOWN). SEE PERMITS ON FILE FOR MORE DETAIL.

EXISTING WATERFLOOD ROADS TO BE USED.

OTHER EXISTING MAIN WATERFLOOD ROADS (Possible Access).

EXISTING LEASE OR FARM ROADS TO BE UPGRADED.

NEW ROADS TO BE CONSTRUCTED.

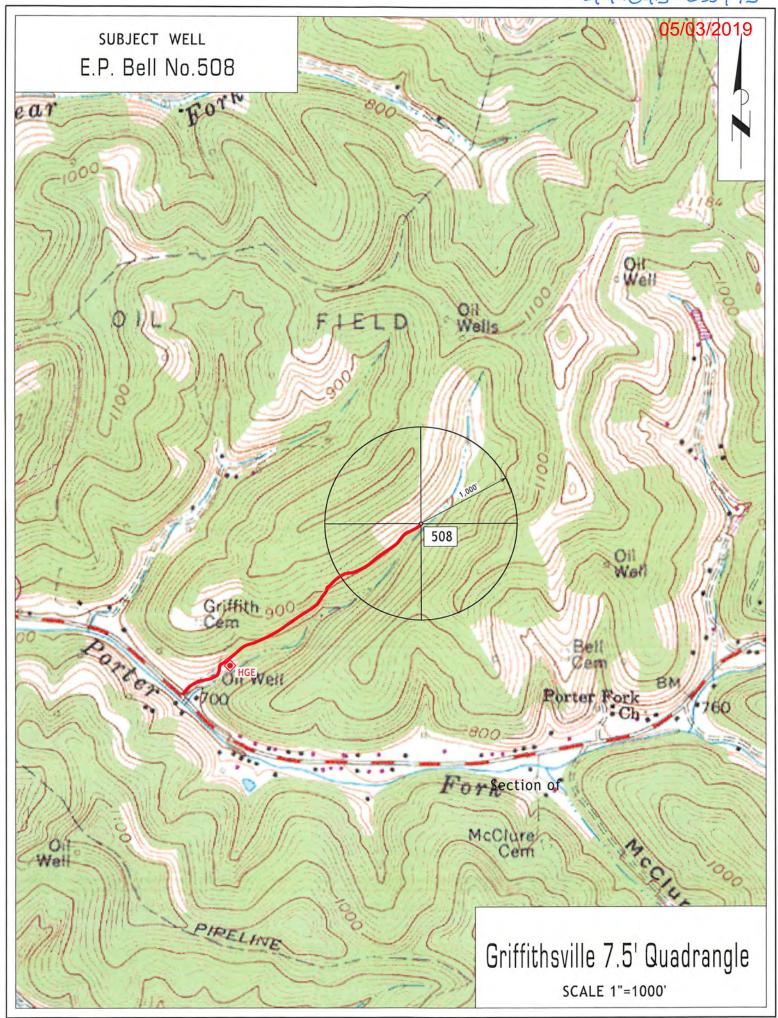
LOCATION FOR PROPOSED WELLS

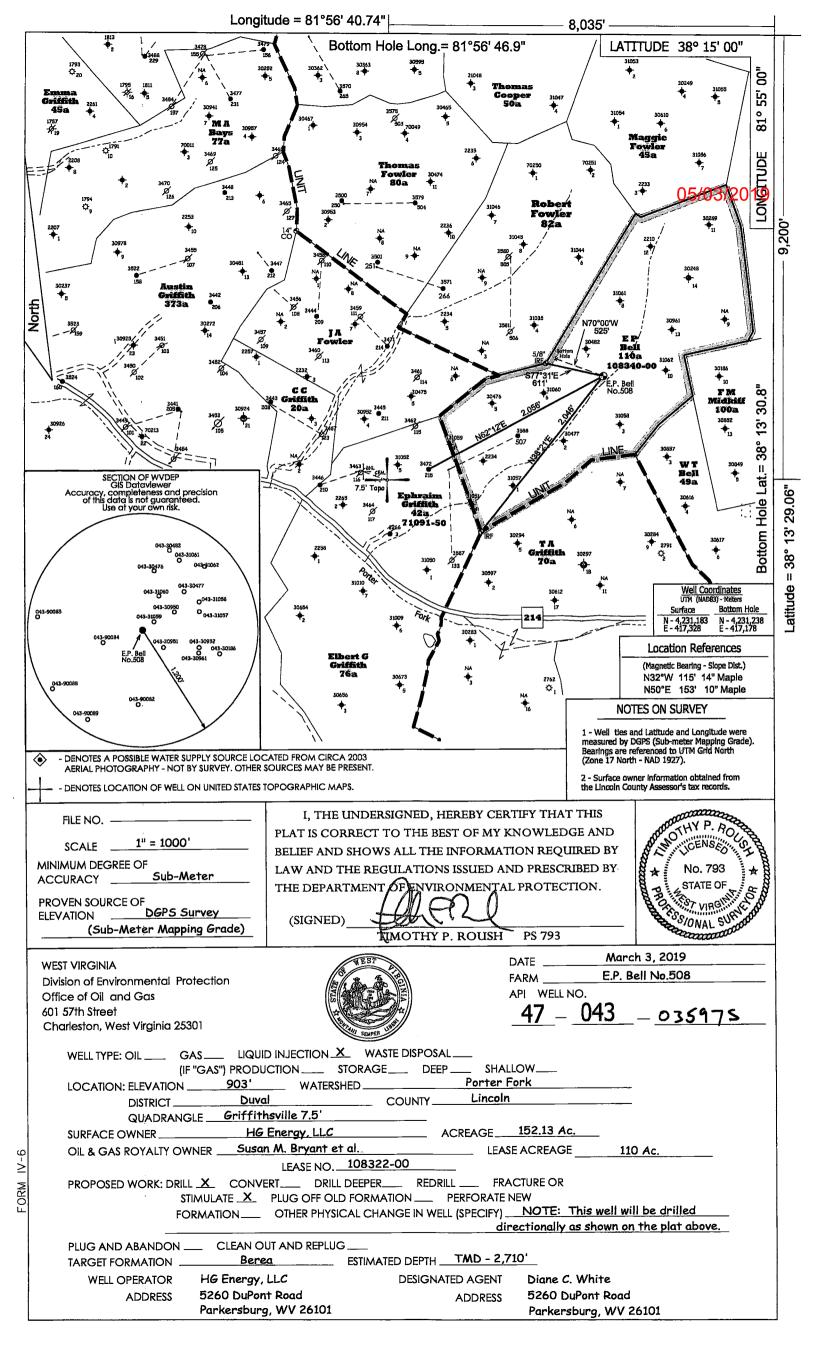
POTENTIAL WATER

EPB 508

SUPPLY SOURCE TO BE SAMPLED (LOC. APPROX.)

47-043-035975







RECEIVED Office of Oil and Gas

MAR 8 2019

WV Department of Environmental Protection