



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

Wednesday, September 16, 2020

WELL WORK PERMIT
Vertical / Re-Work

HG ENERGY, LLC
5260 DUPONT ROAD
PARKERSBURG, WV 26101

Re: Permit approval for J.H. STARR 117
47-087-04757-00-00

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: J.H. STARR 117
Farm Name: FISHER, FREDDIE ET AL
U.S. WELL NUMBER: 47-087-04757-00-00
Vertical Re-Work
Date Issued: 9/16/2020

Promoting a healthy environment.

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. 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.

FORM WW-3 (B)
1/12



1) Date: 08/05/2020
 2) Operator's Well No. J. H. Starr 117
 3) API Well No.: 47 - Roane - 04757
 State County Permit
 4) UIC Permit No. 2R08700005AP

**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: 1064' Watershed: Laurel Fork
 District: Smithfield County Roane Quadrangle Looneyville 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 Joe Taylor Name _____
 Address 1478 Claylick Road Address _____
Ripley, WV 25271

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 Big Injun Depth 2403' Feet (top) to 2410' Feet (bottom)

13) Estimated Depth of Completed Well, (or actual depth of existing well): 2600' TMD Feet
 14) Approximate water strata depths: Fresh NA Feet Salt 1760' Feet

15) Approximate coal seam depths: NA
 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

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	11 5/8"	LS	NA		x	30'	30'		Kinds
Fresh Water	7"	LS	17	x		507'	507'	CTS	Tension
Coal									Sizes
Intermediate									2 3/8" x 4"
Production	4 1/2"	J-55	10.5	x		2531'	2531'	200 sks	Depths set
Tubing	2 3/8"	J-55	4.6	x		2308'	2308'		2308'
Liners									Perforations <u>28</u>
									Top Bottom
									2403' 2410'

24) APPLICANT'S OPERATING RIGHTS were acquired from JH Starr
 by deed _____ / lease x / other contract _____ / dated 10/22/1906 of record in the
Roane County Clerk's office in lease Book 10 Page 210

JH

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Office of Oil and Gas
AUG 20 2020
WV Department of Environmental Protection
psig (BHP)

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

API 47-087-04757 County ROANE District SMITHFIELD
Quad LOONEYVILLE 7.5' Pad Name STARR, J.H. Field/Pool Name CLOVER
Farm name FISHER, FREDDIE ET AL Well Number 117
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 4,284,844 M Easting 474,986 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,284,632 M Easting 474,820 M

Elevation (ft) 1,064' 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 2/27/15 Date drilling commenced 8/18/15 Date drilling ceased 8/21/15
Date completion activities began 8/31/15 Date completion activities ceased 9/3/15
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug
Freshwater depth(s) ft None Open mine(s) (Y/N) depths None
Salt water depth(s) ft 1760' Void(s) encountered (Y/N) depths None
Coal depth(s) ft None Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) N

Reviewed by:
JJZ

WR-35
Rev. 8/23/13

API 47-087 - 04757 Farm name FISHER, FREDDIE ET AL Well number 117

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	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	507'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2531'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 50 sks to surface on 7" surface cement job. Circulated Est. 50 sks to surface on 4 1/2" cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	130	15.6	1.18	154	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	100/125	13.2/14.2	1.64/1.27	164/186	46'	8
Tubing							

Drillers TD (ft) 2600' Loggers TD (ft) 2554'

Deepest formation penetrated Big Injun Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 600'

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 _____

20 Centralizers every 88 from bottom on 4 1/2". Centralizer placed mid string on 7"

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

WR-35
Rev. 8/23/13

API 47-087 - 04757 Farm name FISHER, FREDDIE ET AL Well number 117

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	8/31/15	2403'	2410'	28	Big Injun

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	9/3/15	5	637	977	442	2,500	150	

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Please insert additional pages as applicable.

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Rev. 8/23/13

API 47- 087 - 04757 Farm name FISHER, FREDDIE ET AL Well number 117

PRODUCING FORMATION(S)	DEPTHS	
Big Injun	? TVD	2390' 2421' 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 _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY 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 ₂ S, ETC)
Sand/Shale	0	1570	0	1618	
Sand	1570	1589	1618	1640	
Shale	1589	1618	1640	1674	
Sand	1618	1820	1674	1949	
Shale	1820	1837	1949	1974	
Sand	1837	1912	1974	2096	
Little Lime	1912	1950	2096	2154	
Pencil Cave	1950	1960	2154	2168	
Big Lime	1960	2086	2168	2350	
Keener	2086	2112	2350	2390	
Big Injun	2112	2132	2390	2421	Drilled directional S 38° W a distance of 822'
Shale	2132	2257	2421	2600	
TD	2257		2600		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Universal Services
Address 14 Sewer Plant Rd City Buckhannon State WV Zip 26201

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

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Please insert additional pages as applicable.

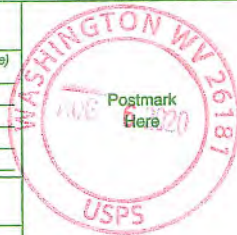
Completed by Roger Heldman Telephone 304-420-1107
Signature [Signature] Title Operations Manager Date 9/30/15

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

[Signature]

7019 2280 0000 1287 1051

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For delivery information, visit our website at www.usps.com ®.	
OFFICIAL USE	
Certified Mail Fee	
\$	
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	
\$	
Sent To	Freddie Fisher
Street and Apt. No., or PO Box No.	4513 Clay Road
City, State, ZIP+4®	Spencer WV 25276
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	



JH5117

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

August 5, 2020

Freddie Fisher
4513 Clay Road
Spencer, WV 25276

RE: J. H. Starr No. 117
Smithfield District, Roane 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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WW-2A / 3A Surface Waiver

SURFACE OWNER WAIVER

County Roane Operator HG Energy, LLC
 Operator well number JH Starr 117

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, ETC.

 Signature Date _____
 04757

Company Name _____
 By _____
 Its _____

Office of Oil and Gas
 AUG 20 2020
 WV Department of Environmental Protection
 Date

Print Name

Signature

Date

WW-2B1
(5-12)

Well No. JH Starr 117

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 Analytical Lab
Sampling Contractor Sturm Analytical Lab

Well Operator HG Energy, LLC

Address 5260 Dupont Road

Parkersburg, WV 26101

Telephone 304-420-1119

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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

WW-9
(2/15)

API Number 47 - 87 - 04757

Operator's Well No. JH Starr 117

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) Laurel Fork Quadrangle Looneyville 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

ANY WELL EFFLUENT MUST BE CONTAINED IN TANKS BEFORE DISPOSING OFF-SITE. g.w.m

If so, please describe anticipated pit waste: NA

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- 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 for disposal)

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

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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

Subscribed and sworn before me this 5th day of August, 2020

Cassidy A. Boardman Notary Public

My commission expires 7/31/2022

JQZ



Form WW-9

Operator's Well No. JH Starr 117

HG Energy, LLC

Proposed Revegetation Treatment: Acres Disturbed 0.1 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
Tall Fescue	40
Ladino Clover	5

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

** Sediment Control Plan will be in effect 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:

Joe Taylor [Signature]

Comments:

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Title:

OOG Inspector

Date:

8-12-2020

Field Reviewed?

(✓) Yes

() No



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Reclamation Plan For:

J.H. Starr No. 117 47-087-04757

Carr Nichols Lease
James Shamblin
- Surface

S.B. Kinkead Lease
James Shamblin
- Surface

Lease Road to
J.H. Starr No. 5
(47-087-3028)

Upgrade ~1,200' of existing driveway.
Install new drainage and stone as needed.
Leave road in equal or better condition
at the conclusion of drilling operations.

Existing Commercial
Road Approach

Shamblin
Dwelling

36

Maintain Existing
Access Road

Shamblin
Dwelling

EXISTING LOCATION:

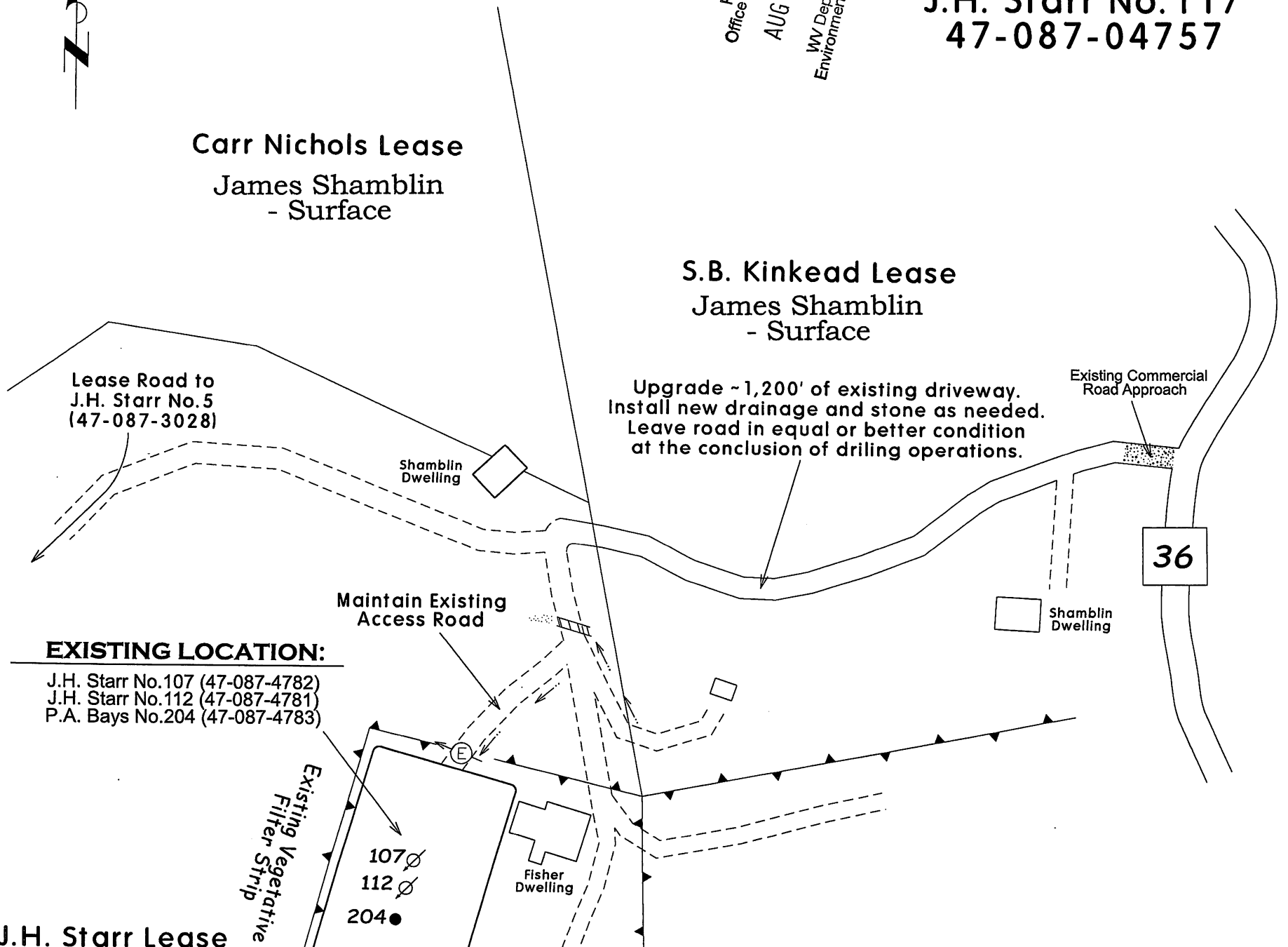
- J.H. Starr No. 107 (47-087-4782)
- J.H. Starr No. 112 (47-087-4781)
- P.A. Bays No. 204 (47-087-4783)

Existing Vegetative
Filter Strip

107 ∅
112 ∅
204 ●

Fisher
Dwelling

J.H. Starr Lease



47-087-04757SW

James Shamblin
- Surface

Existing Farm Road

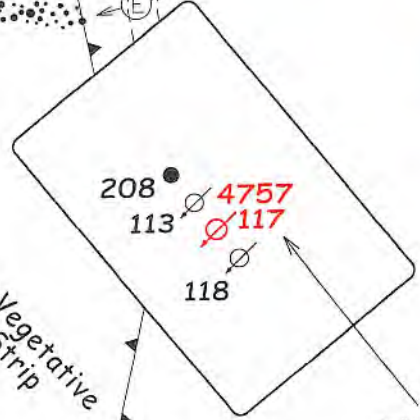
Freddie Fisher
- Surface

Maintain Existing
Access Road

P.A. Bays Lease
Caroline Miller
- Surface

Plc
8-12-2020

Barn



Existing Vegetative
Filter Strip

EXISTING LOCATION:

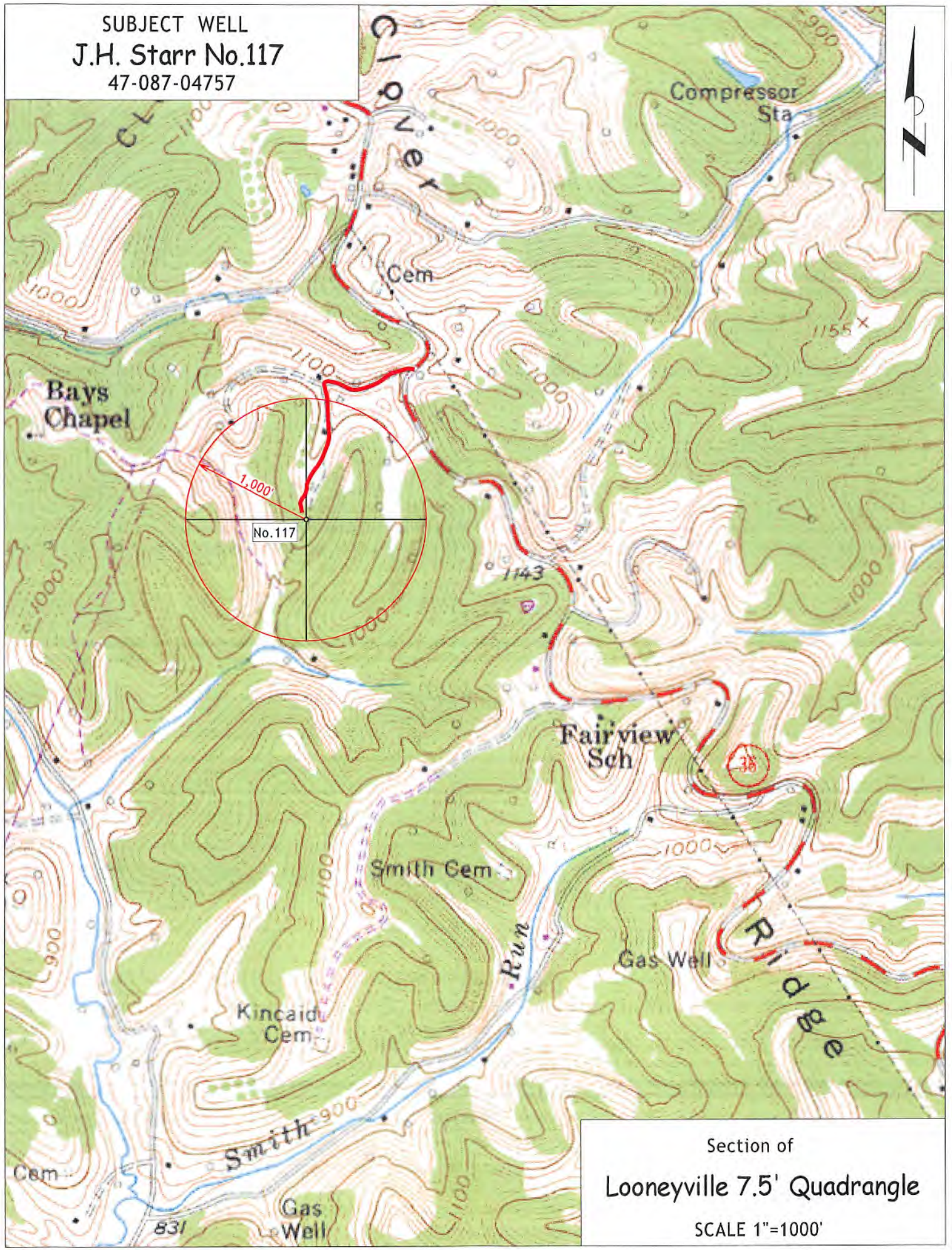
- P.A. Bays No.208 (47-087-4778)
- P.A. Bays No.113 (47-087-4756)
- J.H. Starr No.117 (47-043-4757)
- E. Smith No.118 (47-087-4762)

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

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.

SUBJECT WELL
J.H. Starr No.117
47-087-04757



Section of
Looneyville 7.5' Quadrangle
SCALE 1"=1000'

SURVEY NOTES

1 - Well ties and Latitude and Longitude were measured by DGPS (Sub-meter Mapping Grade). Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1983).

2 - Surface owners and adjoining information obtained from the Roane County Assessor's tax records.

3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title opinion.

4 - Existing well spots from HGE or Seneca Tech, Inc. data

UTM Coordinates (Zone 17N-NAD 1983)

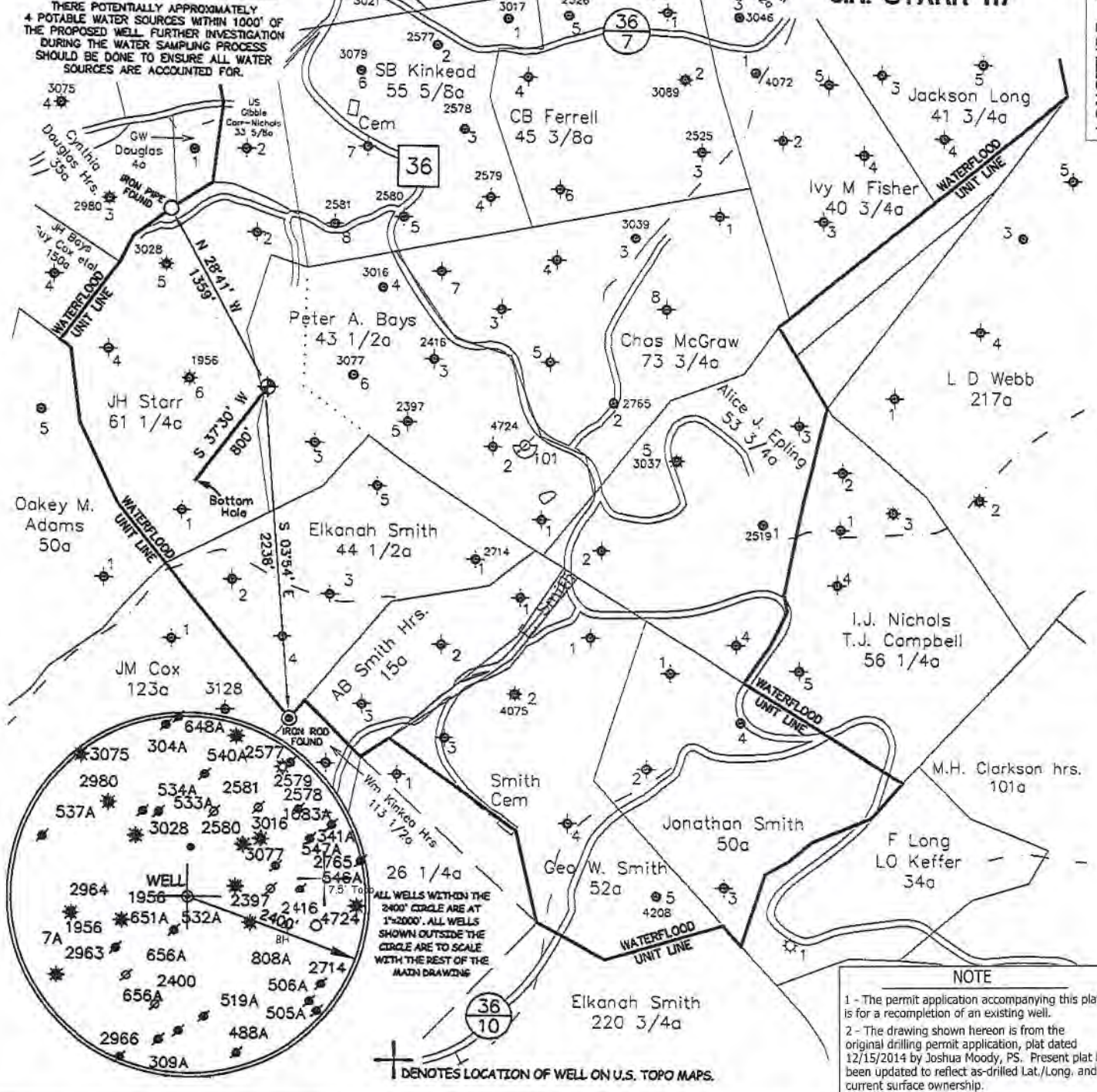
Surface N-4,284,844m.
E-474,986m.

Bottom Hole N-4,284,651m.
E-474,838m.

LOCATION REFERENCES

MAGNETIC BEARING
S 66° W 121.7' 24" RED OAK
N 31° W 153.6' 14" BLACK OAK

**MAP OF
H.G. ENERGY, LLC
-WATERFLOOD UNIT-
J.H. STARR 117**



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 12/15/2014 by Joshua Moody, PS. Present plat has been updated to reflect as-drilled Lat./Long. and current surface ownership.

⊕ DENOTES LOCATION OF WELL ON U.S. TOPO MAPS.

FILE NO. _____

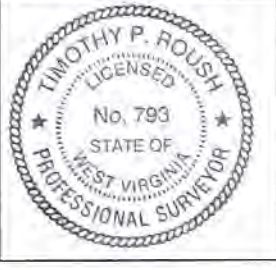
SCALE 1" = 1000'

MINIMUM DEGREE OF ACCURACY _____

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) *[Signature]*
TIMOTHY P. ROUSH PS 793



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

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

LOCATION: ELEVATION 1,064' WATERSHED Laurel Fork
DISTRICT Smithfield COUNTY Roane
QUADRANGLE Looneyville 7.5'

SURFACE OWNER Freddie Fisher et al. ACREAGE 33 Ac.
OIL & GAS ROYALTY OWNER Wm. S. Haymond II et al. LEASE ACREAGE 104 Ac.
LEASE NO. _____

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 Big Injun ESTIMATED DEPTH 2,600' MD

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

DATE July 27, 2020
FARM J.H. Starr No.117
API WELL NO. 47 - 087 - 04757 SW

1 - Well ties and Latitude and Longitude were measured by DGPS (Sub-Meter Mapping Grade). Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1983).

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3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete Title Opinion.

4 - Existing well spots from HSE or Seneca Tech, Inc. data. THERE POTENTIALLY APPROXIMATELY 4 POTABLE WATER SOURCES WITHIN 1000' OF THE PROPOSED WELL. FURTHER INVESTIGATION DURING THE WATER SAMPLING PROCESS SHOULD BE DONE TO ENSURE ALL WATER SOURCES ARE ACCOUNTED FOR.

SURVEY NOTES

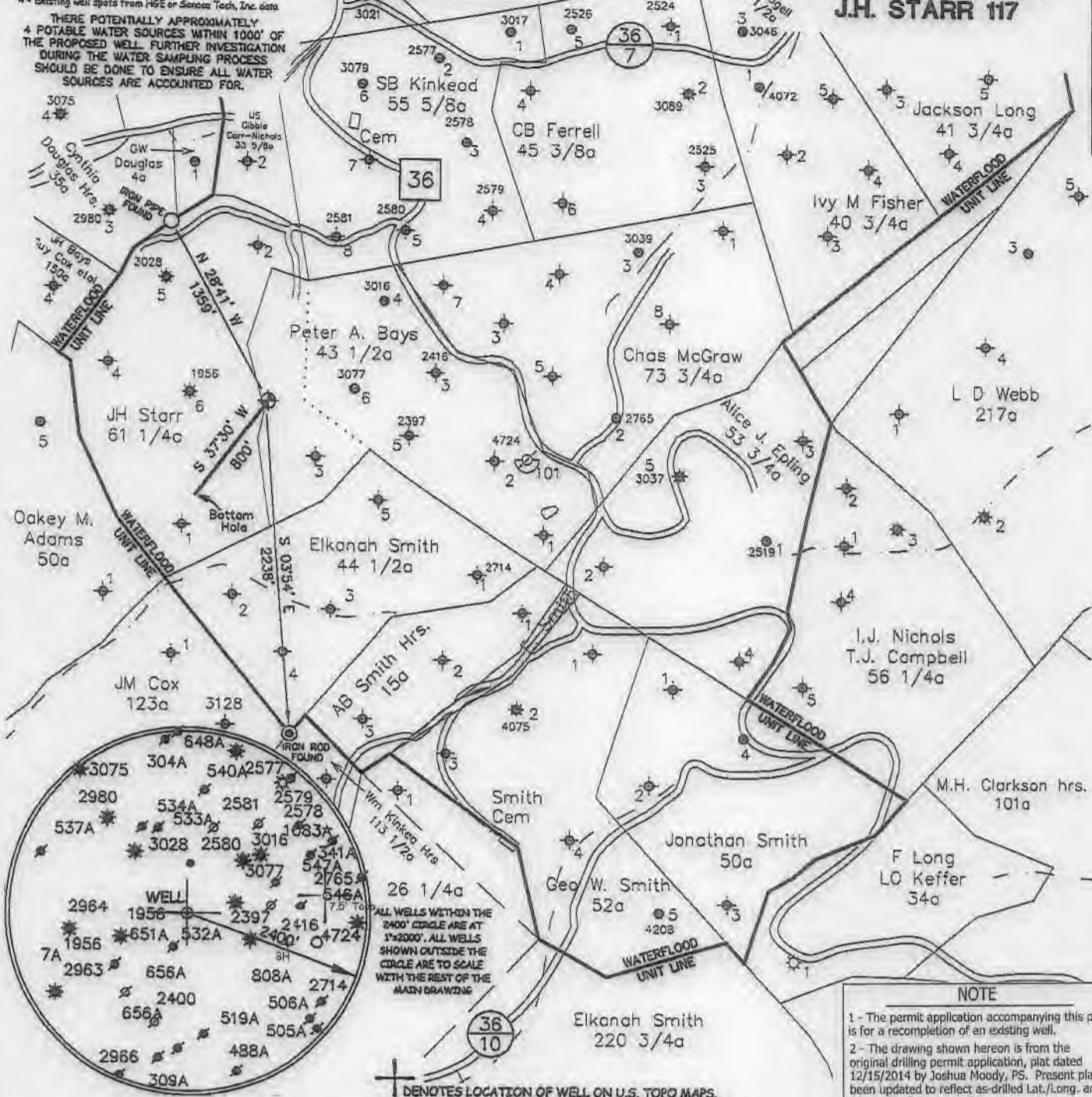
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LOCATION REFERENCES

MAGNETIC BEARING S 66° W 121.7' 14" RED OAK N 31° W 153.6' 14" BLACK OAK

MAP OF H.G. ENERGY, LLC -WATERFLOOD UNIT- J.H. STARR 117




ALL WELLS WITHIN THE 2400' CIRCLE ARE AT 1"=2000'. ALL WELLS SHOWN OUTSIDE THE CIRCLE ARE TO SCALE WITH THE REST OF THE MAIN DRAWING

⊕ DENOTES LOCATION OF WELL ON U.S. TOPO MAPS.

NOTE
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2 - The drawing shown hereon is from the original drilling permit application, plat dated 12/15/2014 by Joshua Moody, PS. Present plat has been updated to reflect as-drilled Lat./Long. and current surface ownership.

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PROVEN SOURCE OF ELEVATION DGPS Survey
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(SIGNED) 
TIMOTHY P. ROUSH PS 793



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



DATE July 27, 2020
FARM J.H. Starr No.117
API WELL NO. 47 - 087 - 04757 SW

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION WASTE DISPOSAL ___
(IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION 1,064' WATERSHED Laurel Fork
DISTRICT Smithfield COUNTY Roane
QUADRANGLE Looneyville 7.5'
SURFACE OWNER Freddie Fisher et al. ACREAGE 33 Ac.
OIL & GAS ROYALTY OWNER Wm. S. Haymond II et al. LEASE ACREAGE 104 Ac.
LEASE NO. _____
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR
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PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION Big Injun ESTIMATED DEPTH 2,600' MD
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

August 5, 2020

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

CK# 4709
Amt \$550
Date 8/17/20

RE: J. H. Starr No. 117 (API 47-087-04757)
Smithfield District, Roane 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 \$550.00 to cover the associated permit fees.

Very truly yours,

Diane White

Diane C. White

Enclosures

cc: Freddie Fisher – Certified
Joe Taylor – Inspector

RECEIVED
Office of Oil and Gas
AUG 20 2020
WV Department of
Environmental Protection