



west virginia department of environmental protection

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

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

March 31, 2015

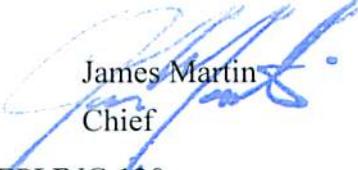
WELL WORK PERMIT
Secondary Recovery Well

This permit, API Well Number: 47-8704764, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

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

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

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


James Martin
Chief

Operator's Well No: A.J. EPLING 120
Farm Name: FISCHER, RICHARD & RONALD
API Well Number: 47-8704764
Permit Type: Secondary Recovery Well
Date Issued: 03/31/2015

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.

87047645

FORM WW-3 (B)
1/12



1) Date: 01/12/2015
2) Operator's Well No. AJ Epling 120
3) API Well No.: 47 - Roane - s
State County Permit
4) UIC Permit No. UIC2R08704AP

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: 1189' Watershed: Rush Run
District: Smithfield County Roane Quadrangle Looneyville 7.5'
7) WELL OPERATOR: HG Energy, LLC 8) DESIGNATED AGENT
Address 5260 Dupont Road Address
Parkersburg, WV 26101

9) OIL & GAS INSPECTOR TO BE NOTIFIED 10) DRILLING CONTRACTOR
Name Ed Gainer Name To Be Determined Upon Approval of Permit
Address P. O. Box 821 Address
Spencer, WV 25276

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 2200 Feet (top) to 2220 Feet (bottom)

13) Estimated Depth of Completed Well, (or actual depth of existing well): TVD 2300, TMD 2960 Feet

14) Approximate water strata depths: Fresh 460 Feet Salt 1675 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 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 and/or coal bed 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									Kinds
Fresh Water	7"	LS, ST&C	17#	X		575'	575'	CTS	
Coal									Sizes
Intermediate									2.375" x 4.5"
Production	4 1/2"	J-55	10.5#	X		2920'	2920'	200 sks	Depths set
Tubing	2 3/8"	J-55	4.6#	X		2670'	2670'		2570'
Liners									Perforations
									Top Bottom

24) APPLICANT'S OPERATING RIGHTS were acquired from Alice and F.J. Epling
by deed / lease X / other contract / dated 09/23/1909 of record in the
Roane County Clerk's office in lease Book 8 Page 435

1/26/15

87042645

RECEIVED
Office of Oil and Gas
Jan 06 2015
WV Department of
Environmental Protection

7014 0510 0000 4074 5446

Sent to
Street, Apt. No.,
or PO Box No. Richard Fisher et al
4513 Clay Road
City, State, ZIP+4 Spencer, WV 25276
PS Form 3800, August 2006 See Reverse for Instructions

Postage	\$ 1.61
Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Registered Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.61



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2899
56-250/442 02

DATE 1-14-2015

\$ 650.00

DOLLARS



HG ENERGY, LLC 03-11
304-422-6565
5260 DUPONT RD
PARKERSBURG, WV 26101

PAY TO THE ORDER OF WV D.E.P.

Six Hundred Fifty Dollars and 00/100



900.374.6123
peoplesbankcorp.com

FOR Permit A J Epling No. 120

Be L Seldin

WW-2B1
(5-12)

Well No. A. J. Epling 120

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
Sampling Contractor Sturm Environmental

Well Operator HG Energy, LLC
Address 5260 Dupont Road
Parkersburg, WV 26101
Telephone 304-420-1119

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.

Surface Owners Identified With Water Sources to be Sampled/Analyzed:

* Richard Fisher
4513 Clay Road
Spencer WV 25276

* Brenda Chadwell
4580 Clay Road
Spencer WV 25276

* Anthony Hofstad
431 Main Street
Spencer WV 25276

* Luie Griffith
4794 Clay Road
Spencer WV 25276

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Environmental Protection

SEE TOPO MAP.

8704764S

WW-9
Rev. 5/10

Page 435 of _____
API Number 47 - _____ - _____
Operator's Well No. AJ Epling 120

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name HG Energy, LLC OP Code 494497948

Watershed Rush Run Quadrangle Looneyville 7.5'

Elevation 1189' County Roane District Smithfield

Description of anticipated Pit Waste: Fluids encountered while drilling shallow well

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

Will a synthetic liner be used in the pit? Yes . If so, what mil.? 20 mil

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 25-561)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air, Fresh Water

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

Additives to be used? Water, Soap, KCl

Will closed loop system be used? No

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

-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust Native soil, cement, lime

-Landfill or offsite name/permit number? _____

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

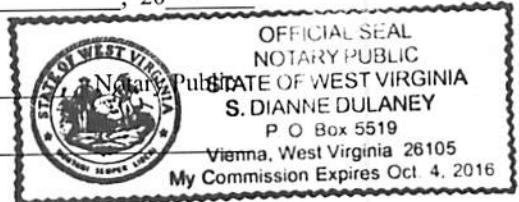
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Subscribed and sworn before me this 12th day of January, 20 15

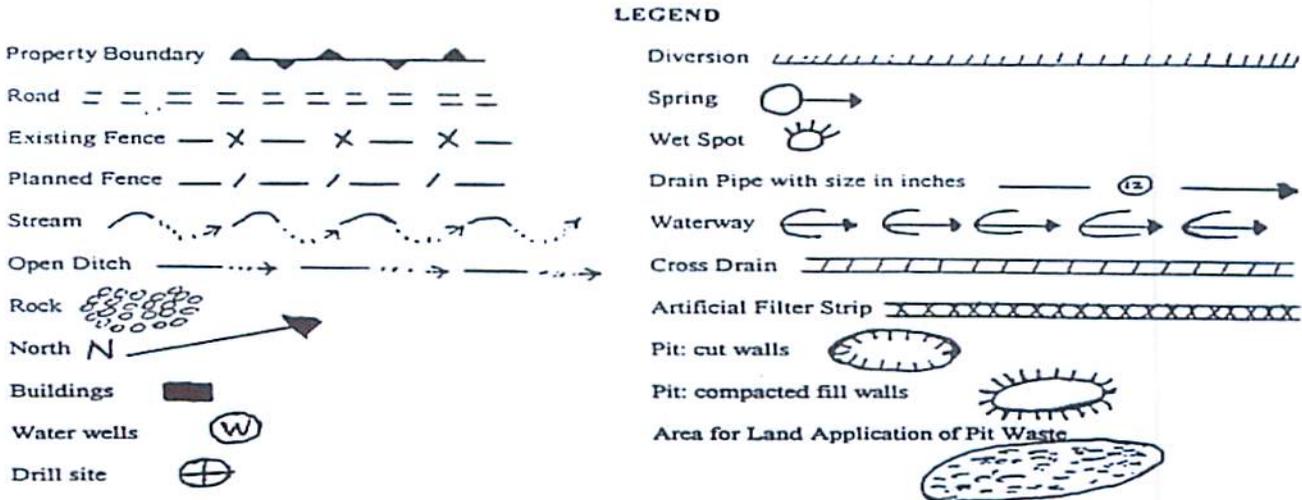
[Signature]
My commission expires Oct. 4, 2016



My Commission Expires Oct 1, 2010

My Commission Expires Oct 1, 2010
Virginia West Virginia
P.O. Box 9876
S. DUNCAN CANNERY
STATE OF WEST VIRGINIA
MARTIN LUTHER KING, JR.
DR. MARTIN LUTHER KING, JR.





Proposed Revegetation Treatment: Acres Disturbed 0.8 acres Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch Straw 2 Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre
Tall Fescue		40	Tall Fescue		40
Ladino Clover		5	Ladino Clover		5

Sediment control to be in place at all times.

Attach:
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

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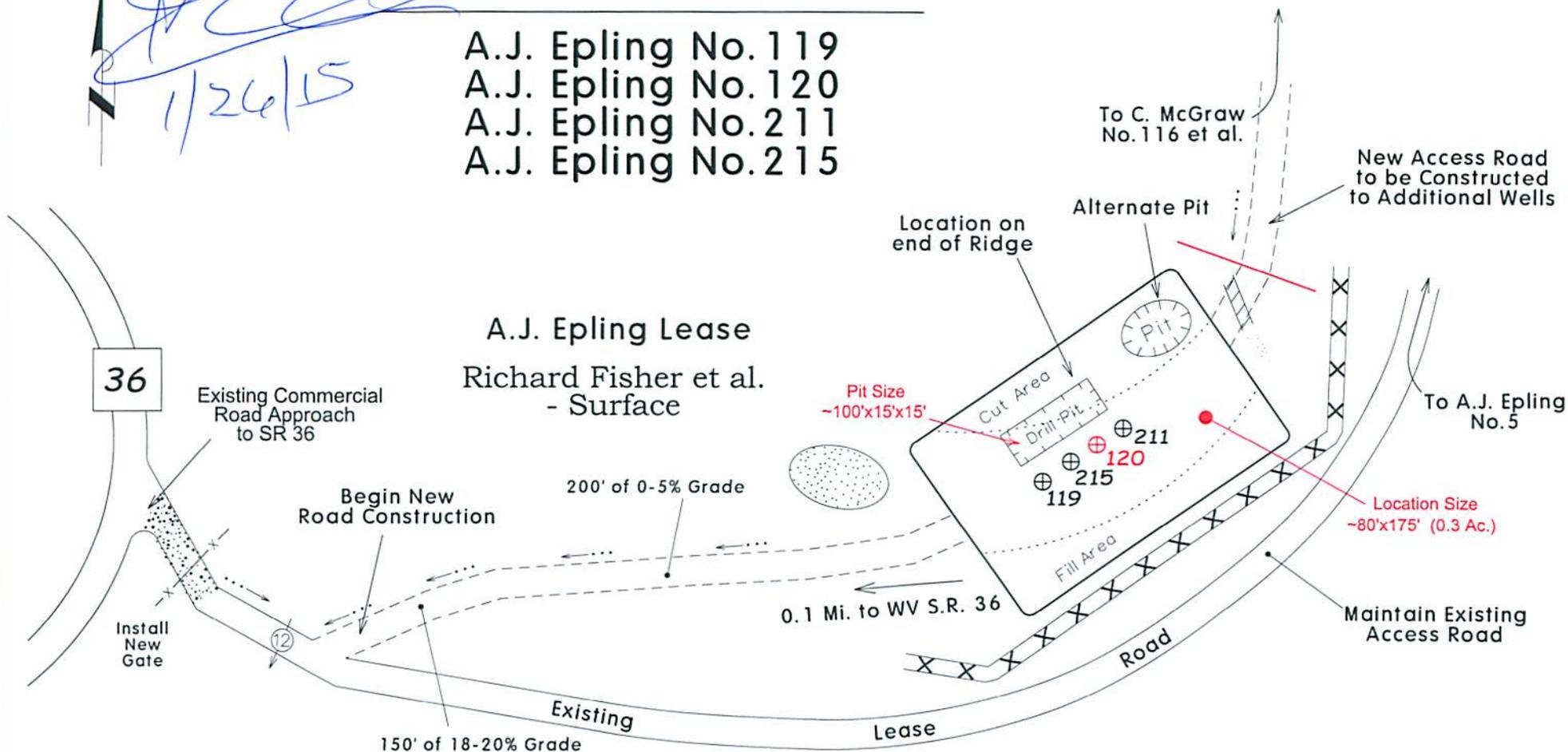
Title: Inspector Date: 1/26/15

Field Reviewed? Yes No

Reclamation Plan For:

A.J. Epling No. 119
 A.J. Epling No. 120
 A.J. Epling No. 211
 A.J. Epling No. 215

1/26/15



A.J. Epling Lease
 Richard Fisher et al.
 - Surface

36

Existing Commercial Road Approach to SR 36

Begin New Road Construction

200' of 0-5% Grade

Pit Size ~100'x15'x15'

Location on end of Ridge

Alternate Pit

New Access Road to be Constructed to Additional Wells

To A.J. Epling No. 5

Location Size ~80'x175' (0.3 Ac.)

Maintain Existing Access Road

0.1 Mi. to WV S.R. 36

Existing

Lease

150' of 18-20% Grade

Notes:

- REQUESTED PERMIT IS FOR DRILLING OF NEW WELL.
- SOME ACCESS ROADS ARE EXISTING AND WILL BE UPGRADED TO WVDEP STANDARDS. NEW STRUCTURES WILL BE INSTALLED AS SHOWN.
- STOCKPILE TOPSOIL FOR RE-DRESSING LOCATION DURING RECLAMATION
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- 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.
- DRAWING NOT TO SCALE.

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

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See Page 2 for
 Road to Additional Wells

87047645

SUBJECT WELL
A.J. Epling No.120



◆ Denotes Potential Water Supply Source and Surface Owner (From Aerial Photography)

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

Office of Oil and Gas, 2580 Dupont Road, Parkersburg, WV 26101

Well Operator: H.G. Energy, LLC; Designated Agent: Diane White

Target Formation: Big Injun; Estimated Depth: TVD=2,300', MD=2,960'

Other Physical Change in Well (Specify) Well will be drilled directionally (N 78.45° E 1000')

Stimulate X Plug off old formation; Perforate new formation

Proposed Work: Drill X Convert X Drill Deeper X Redrill X Fracture or

Oil & Gas Royalty Owner: Freehold Company et al; Lease Acreage: 54.00 acres +/-

Surface Owner: Dolores Atkinson (Trustee); Richard & Ronald Fisher Acreage: 105.73 acres +/-

Quadrangle: Looneyville 7.5; District: Smithfield; County: Boone

Location: Elevation 1180', Watershed Big Hollow; Production: Deep Shallow

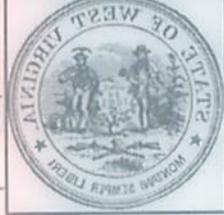
Well Type: Oil Gas; Liquid Injection X; Waste Disposal X; Horizontal

West Virginia Department of Environmental Protection, Office of Oil and Gas

Mapping Grade GPS; Proven Source of Elev.; Accuracy 1/200; Minimum Degree of

Scale 1" = 1000'; Drawing # 14-033; Job # 14-033

St. Marys, WV 26170; Wody Land Surveying, LLC; West Virginia Department of Environmental Protection, Office of Oil and Gas

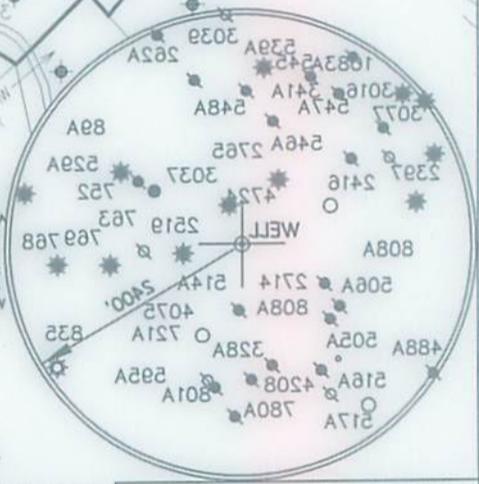


The undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

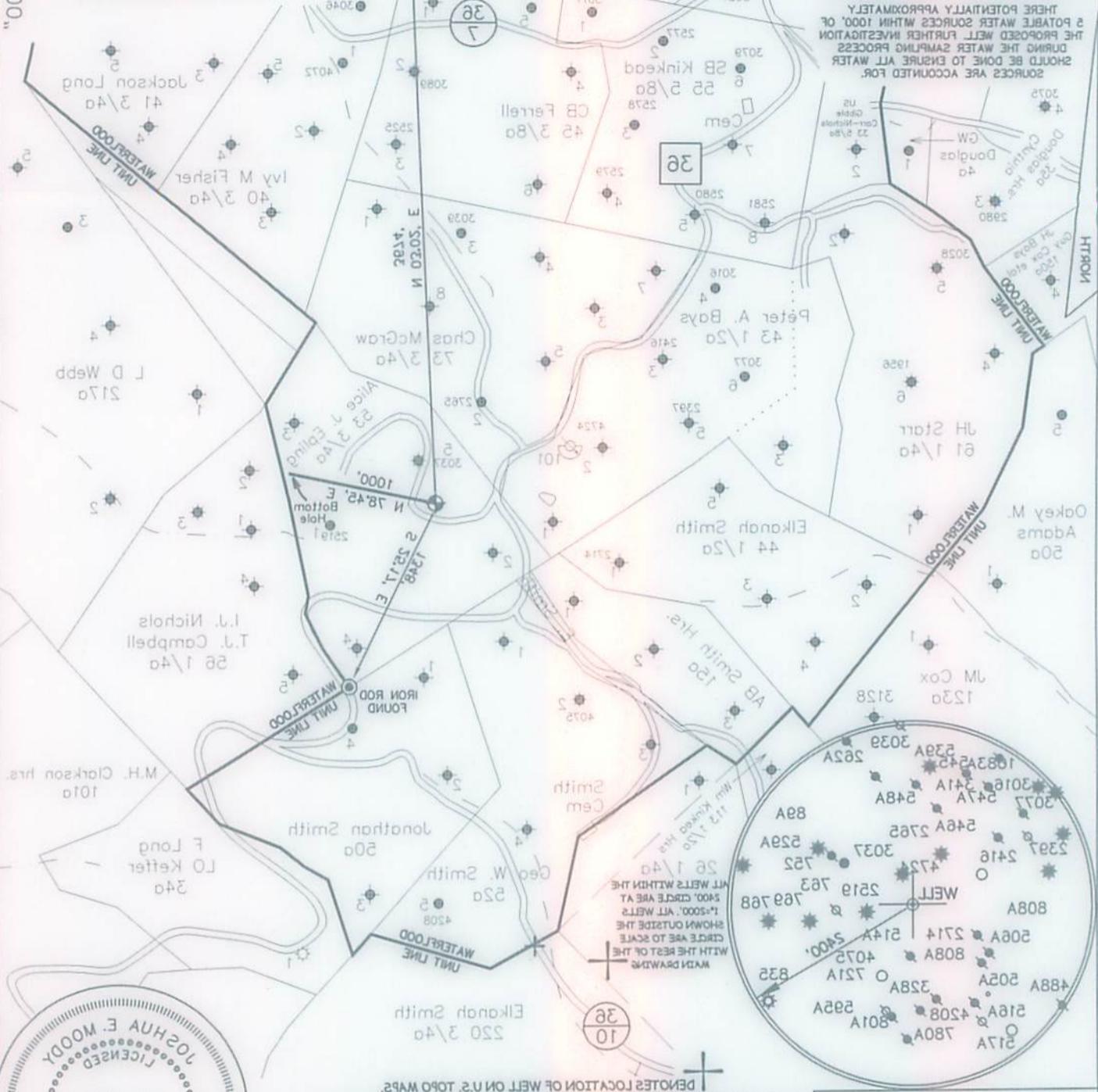


Operator's Well: A.J. Epling # 120; Date: 12/15/14; State of West Virginia

Permit # 62031-20; County Name: Boone; Permit: A.J. Epling # 120



Wells within the 2500' circle are at 1:5000 scale. All wells shown outside the circle are to scale with the rest of the main drawing.



UTM Coordinates (Zone 17N UTM 1883); Surface: N-4,284,618m, E-4,752,793m; Bottom Hole: N-4,284,678m, E-4,76,092m

Magnetic Bearing: N 52.7 W 110.0' B. Maple; Location References: Iron Road Found

Map of H.G. Energy, LLC - Waterflood Unit - A.J. Epling 120; LAT: 38.45.00; LON: 81.12.00

Bot. Ht.: LON: 81°16'30.5"; LON: -81°16'42.9"

1 - Well: True and Latitude and Longitude were measured by GPS (2nd-order Mapping Grade) bearing on reference to UTM Grid North (Zone 17 North - NAD 1983)

2 - Structures and other information obtained from the Boone County Assessor's records

3 - The opinion was provided to the surveyor during this survey. This survey is subject to complete title opinion

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

5 - THERE POTENTIALLY APPROXIMATELY 2 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.



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

CK# 2899
650.00
87047645

January 12, 2015

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

RE: A. J. Epling No. 120
Smithfield District, Roane County
West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, WW-3(B1), mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to drill an injection well. Also enclosed is our check in the amount of \$650.00 to cover the associated permit fees.

Very truly yours,

Diane White

Diane C. White

Enclosures

cc: Richard Fisher – Certified
Ed Gainer – Inspector

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Office of Oil and Gas
FEB 06 2015
WV Department of
Environmental Protection