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

February 12, 2015

WELL WORK PERMIT

Re-Work

This permit, API Well Number: 47-1705441, issued to PROFESSIONAL OILFIELD SERVICES, INC., 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: G. HINTERER 2
Farm Name: RILEY, FAYE HINTERER
API Well Number: 47-1705441
Permit Type: Re-Work
Date Issued: 02/12/2015

Promoting a healthy environment.

1705441W

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.

1705441W
CK 7810
$550.00

WW - 2B
(Rev. 8/10)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Professional Oilfield Services, Inc. | 494461323 (Operator ID) | Doddridge (County) | Cove (District) | Vadis 7 5' (Quadrangle)

2) Operator's Well Number: Gertrude Hinterer #2 3) Elevation: 859'

4) Well Type: (a) Oil _____ or Gas X

(b) If Gas: Production X / Underground Storage _____

Deep _____ / Shallow X

5) Proposed Target Formation(s): Big Injun Proposed Target Depth: 2,010'
6) Proposed Total Depth: 2,085 Feet Formation at Proposed Total Depth: Big Injun
7) Approximate fresh water strata depths: 85'
8) Approximate salt water depths: None

9) Approximate coal seam depths: N/A

10) Approximate void depths,(coal, Karst, other): None shown on offset record

11) Does land contain coal seams tributary to active mine? No

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
Re-work - Set bridge plug at 2,085', perforate and frac formation at 1,970' - 2,010' After completion of the re-work, the well will be put into production and evaluated. The bridge plug will remain in place until we decide to 1) Drill the Bridge plug and produce the formations below, or 2) plug and abandon the well at wich time the bridge plug will be drilled out.

13) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor						
Fresh Water						
Coal			Existing -	See attached	Well	Record
Intermediate						
Production						
Tubing						
Liners						

Packers Kind
Sizes
Depths Set

RECEIVED
Office of Oil and Gas
FEB 9 2015
WV Department of
Environmental Protection

1705441W

WR-35
Rev (5-01)

DATE: 12-28-09
API # : 47-1705441 - F

Bob Feb 15110

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

Well Operator's Report of Well Work

Farm name: Riley Faye Hinterer, et al Operator Well No.: Gertrude Hinterer #2

LOCATION: Elevation: 880' Quadrangle: Vadis 7.5'

District: Cove 2 County: Doddridge
Latitude: 4,480 Feet South of 39 Deg. 06 Min. 45.5 Sec.
Longitude 11,180 Feet West of 80 Deg. 44 Min. 51.9 Sec.

Company: Profesional Oilfield Services, Inc.

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 221 ½ S 6th St. PO Box 247	11 3/4"		211	133
Byesville, OH 43723	8 5/8"		1232	378
Agent: Clinton Means	4 ½"		524	992
Inspector: David Scranage Bob				
Date Permit Issued: ~~9-26-07~~ 10/13/09			DCN 10-30-2009	
Date Well Work Commenced: 11-12-09				
Date Well Work Completed: 11-12-09				
Verbal Plugging: NA				
Date Permission granted on: NA				
Rotary Cable Rig				
Total Depth (feet): 5318'				
Fresh Water Depth (ft.): 85'				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): NA				

OPEN FLOW DATA

Producing formation Alexander Sandstone Pay zone depth (ft) 5004'
Gas: Initial open flow 150 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 100 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 12 Hours
Static rock Pressure 1800 psig (surface pressure) after 24 Hours

Second producing formation Benson Sandstone Pay zone depth (ft) 4743'
Gas: Initial open flow 150 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 100 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 12 Hours
Static rock Pressure 1800 psig (surface pressure) after 24 Hours

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Office of Oil & Gas
DEC 30 2009
WV Department of Environmental Protection

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: [signature]
By: David R. Hill
Date: 12-28-09

Received
Office of Oil & Gas
DEC 08 2014

1705441W

Operator Name:	Professional Oilfield Services, Inc.
API#	47-1705441
Well Name:	G. Hinterer #2

Formation Intervals:

Salt Sand	1630' – 1667'
Greenbriar	1868' – 1918'
Big Injun Sandstone	1918' – 2009'
Weir Sandstone	2088' – 2204'
Berea Sandstone	2292' – 2301'
Gordon Sandstone	2499' – 2517'
Warren Sandstone	3182' – 3228'
Speechley Sandstone	3357' – 3397'
Riley Sandstone	4316' – 4350'
Benson Sandstone	4743' – 4757'
Alexander Sandstone	5004' – 5128'

Perforated Intervals:

Stage 1	5004 – 5010 13 shots, 5025 – 5029 9 shots, 5036 – 5050 33 shots, 5066 – 5074 17 shots, 5089 – 5096 15 shots, 5113 – 5128 31 shots
Stage 2	4540 – 4554 9 shots, 4613 – 4618 11 shots 4648 – 4679 63 shots, 4744 – 4756 25 shots
Stage 3	3710 – 3714 9 shots, 3792 – 3800 17 shots, 3835 – 3842 15 shots 3887 – 3902 31 shots, 3912 – 3918 13 shots, 3929 – 3932 7 shots 3966 – 3970 9 shots, 3976 – 3980 9 shots, 4078 – 4081 7 shots 4234 – 4238 9 shots, 4320- 4348 57 shots

Fracturing Details:

	Stage 1	Stage 2	Stage 3
Breakdown Pressure:	402 PSI	1602 PSI	1619 PSI
Average Pressure:	2731 PSI	2656 PSI	2440 PSI
Instant Shut-In:	1675 PSI	2160 PSI	1469 PSI
Average Rate:	13 BPM	13 BPM	13 BPM
Total 15% HCL:	1250 gallons	NA	250 gallons
Total Nitrogen:	261,000 SCF	276,000 SCF	223,000 SCF
Total Sand:	265 sacks	303 sacks	302 sacks

Received
Office of Oil & Gas
DEC 08 2014

1705441W

WW-2A
(Rev. 6-14)

1). Date: _____

2.) Operator's Well Number Gertrude Hinterer #2

3.) API Well No.: 47- State 017 County - 05441 Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name: Riley Faye Hinterer, et al
Address: 3663 US Highway 33 W
Weston, WV 26452
(b) Name:
Address:
(c) Name:
Address:

5) (a) Coal Operator
Name: None
Address:
(b) Coal Owner(s) with Declaration
Name: None
Address:
Name:
Address:
(c) Coal Lessee with Declaration
Name: None
Address:

6) Inspector: Douglas Newlon
Address: 4060 Dutchman Road
Macfarlan, WV 26148
Telephone: 304-932-8049

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

___ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

OR

x Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ___ on the above named parties by:

___ Personal Service (Affidavit attached)
X Certified Mail (Postmarked postal receipt attached)
___ Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

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, 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.

Received
Office of Oil & Gas
DEC 08 2014

JOHN A SUHAR
Notary Public
In and for the State of Ohio
My Commission Expires
November 06, 2018

Well Operator: Professional Oilfield Services, Inc.
By: [signature]
Its: President
Address: 221 1/2 S. 6th Street, P.O. Box 247
Byesville, OH 43723
Telephone: 740-685-5168
Email: OilWell@netscape.com

Subscribed and sworn before me this 26 day of November, 2014

[signature] Notary Public

My Commission Expires 11-6-2018

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov

RECEIVED OCT 2 8 2014

1705441W

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County Doddridge

Operator Professional Oilfield Services, Inc.

Operator well number Gertrude Hinterer #2

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A 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, and attachments consisting of pages 1 through ___ including a work order on Form WW2-B, 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

Signature _____ Date 10/20/14

Ann Riley Zirkle Exec.
Print Name

FOR EXECUTION BY A CORPORATION, ETC.

Company Name _____

By _____

Its _____ Date

_____

Signature Date

Received
Office of Oil & Gas
DEC 08 2014

1705441W

WW-2A1
(Rev. 1/11)

Operator's Well Number Gertrude Hinterer #2

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

(1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;

(2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Riley Fay Hinterer, et al	JMI Smith	1/8th	4/31
JMI Smith	Professional Oilfield Services, Inc. (David R. Hill, Inc.)	W.I.	By Assignment 194/277

Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Professional Oilfield Services, Inc.
By:Its: David R. Hill, President

Received
Office of Oil & Gas
DEC 08 2014

1705441 W

WW-9
(5/13)

Page _____ of _____
API Number 47 - 017 - 5441
Operator's Well No. Gertrude Hinterer #2

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Professional Oilfield Services, Inc. OP Code 494461323

Watershed (HUC 10) Cove Creek Quadrangle Vadis 7.5'

Elevation 859' County Doddridge District Cove

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

Will a pit be used for drill cuttings? Yes _____ No X

If so, please describe anticipated pit waste: _____

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

DCN 10-30-2014

Proposed Disposal Method For Treated Pit Wastes:

_____ Land Application
■ Underground Injection (UIC Permit Number 34-059-4067-00-00 - Ohio)
_____ Reuse (at API Number _____)
_____ Off Site Disposal (Supply form WW-9 for disposal location)
_____ Other (Explain _____

ANY WELL EFFLUENT MUST BE CONTAINED IN TANKS & DISPOSED OF PROPERLY.

Will closed loop system be used? _____

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

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

Additives to be used in drilling medium? _____

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

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

-Landfill or offsite name/permit number? _____

Received
Office of Oil & Gas
DEC 08 2014

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 _____

Company Official (Typed Name) ~~Clinton Means~~ ~~DA~~ David R. Hill

Company Official Title ~~Designated Agent~~ President

Subscribed and sworn before me this 26 day of November, 2014

Notary Public

My commission expires 11-6-2018

NOTARIAL SEAL STATE OF OHIO

JOHN A SUHAR
Notary Public
In and for the State of Ohio
My Commission Expires
November 06, 2018

Form WW-9

Operator's Well No. Gertrude Hinterer #2

LEGEND

Property Boundary
Road
Existing Fence
Planned Fence
Stream
Open Ditch
Rock
North N
Buildings
Water wells
Drill site

Diversion
Spring
Wet Spot
Drain Pipe with size in inches
Waterway
Cross Drain
Artificial Filter Strip
Pit: cut walls
Pit: compacted fill walls
Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 1 ± Prevegetation pH

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/3 TON lbs/acre (500 lbs minimum)

Mulch HAY 2 Tons/acre

Seed Mixtures

Area I Seed Type	lbs/acre	Area II Seed Type	lbs/acre
KY-31	40	ORCHARD GRASS	15
ALSIKE CLOVER	5	ALSIKE CLOVER	5
ANNUAL RYE	15		

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Douglas Newlon

Comments: install E&S To WV Dep regulations
Need Proof 4½ length in well 524' on record

Title: Oil + Gas Inspector Date: 10-30-2014

Field Reviewed? ( ) Yes (✓) No

1705441W

Form WW-9

Operator's Well No. Gertrude Hinterer #2

LEGEND

Property Boundary
Road
Existing Fence
Planned Fence
Stream
Open Ditch
Rock
North N
Buildings
Water wells
Drill site
Diversion
Spring
Wet Spot
Drain Pipe with size in inches
Waterway
Cross Drain
Artificial Filter Strip
Pit: cut walls
Pit: compacted fill walls
Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 1 ± Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/3 TON lbs/acre (500 lbs minimum)

Mulch HAY 2 Tons/acre

Seed Mixtures

Area I Seed Type	lbs/acre	Area II Seed Type	lbs/acre
KY-31	40	ORCHARD GRASS	15
ALSIKE CLOVER	5	ALSIKE CLOVER	5
ANNUAL RYE	15		

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Douglas Newlon

Comments: install E&S To WV Dep regulations
Need Proof 4½ length in well 524' on record

Title: Oil + Gas Inspector Date: 10-30-2014

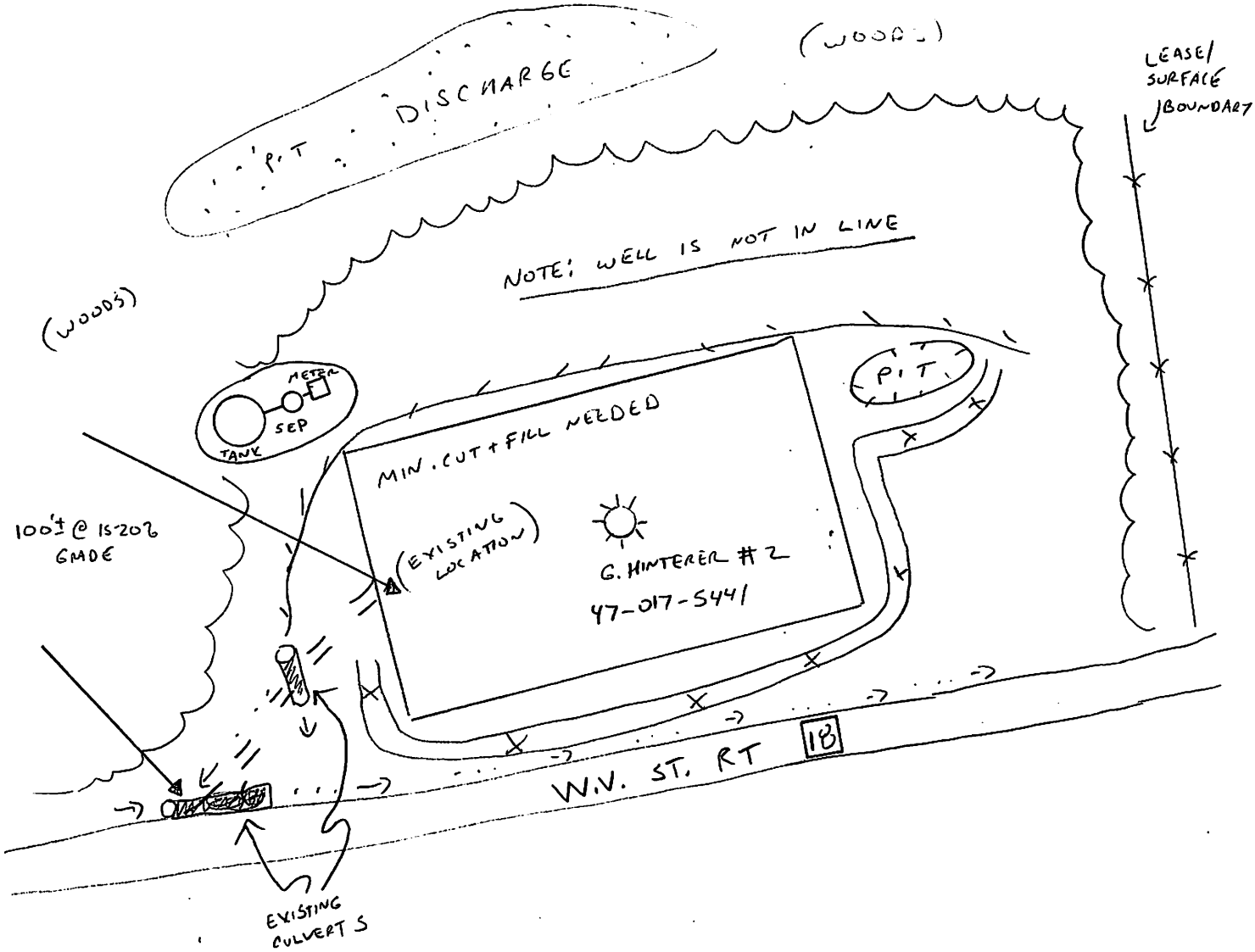
Field Reviewed? (_____) Yes (✓) No

1705441W

Form WW-9

Gertrude Hinterer Lease
Well No. 2
47-017-5441

page of



ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL. ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS(TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS(ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

Received
Office of Oil & Gas
DEC 08 2014

(DRAWING NOT TO SCALE) NORTH

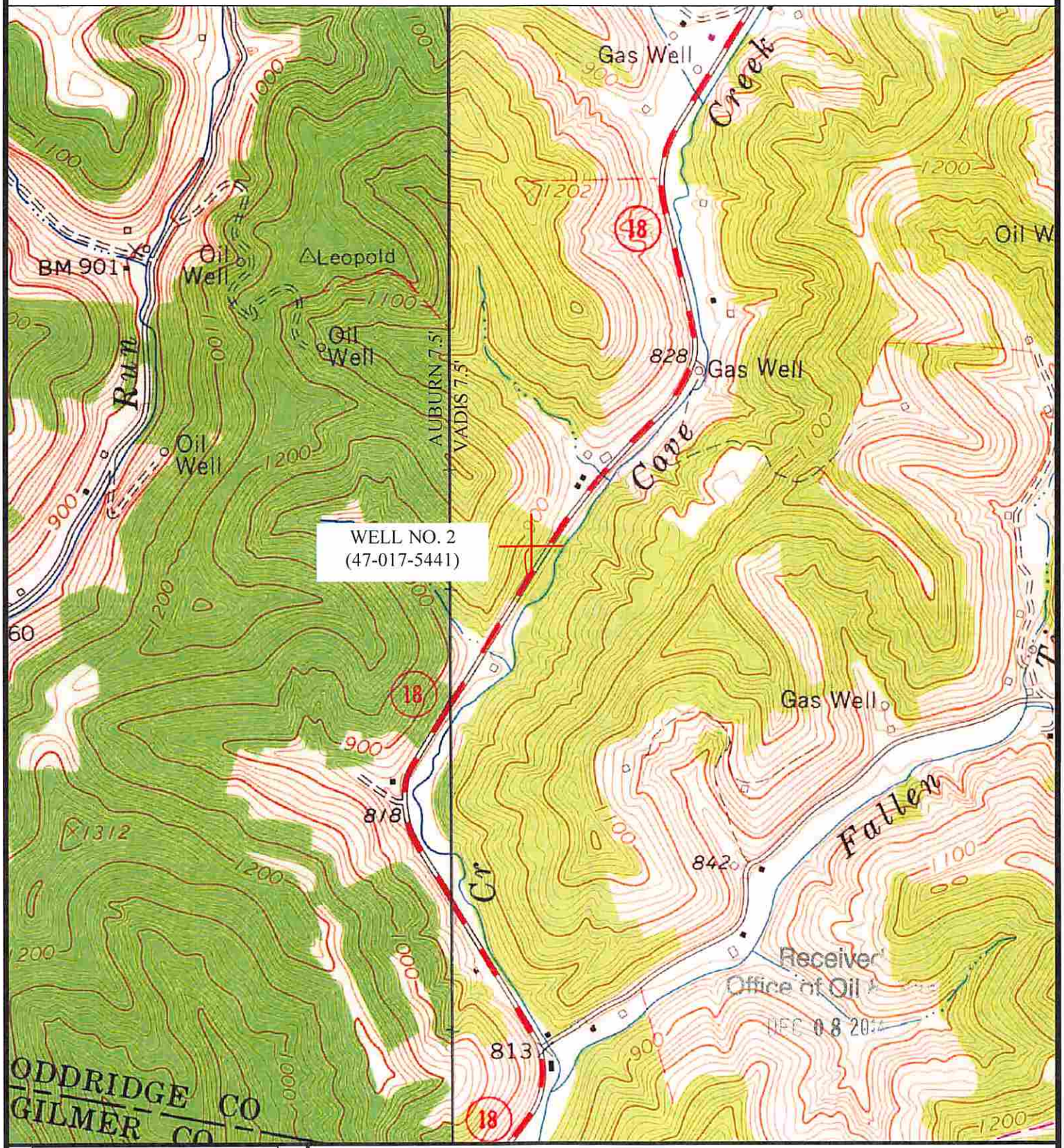
SLS SMITH LAND SURVEYING, INC.	Phone (304) 462-5634 Fax 462-5656 email: sls@rtol.net
P.O. BOX 150, GLENVILLE, WV 26351	DRAWN BY C.P.M. DATE 8/25/09 10/1/14 FILE NO. 6072

1705441 W

FORM WW-9

GERTRUDE HINTERER LEASE
WELL NO. 2
(47-017-5441)

page of



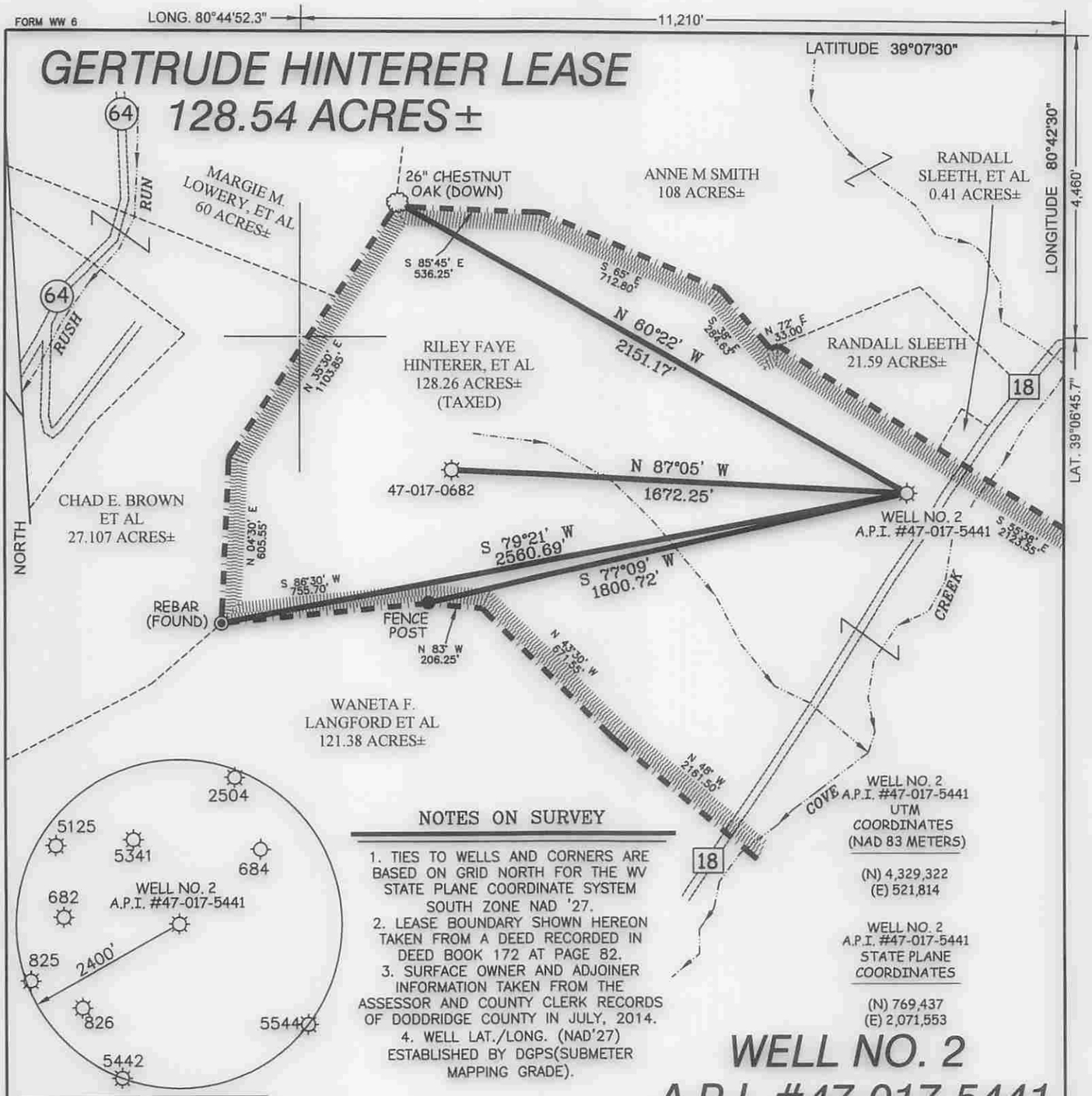
Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING
SURVEYORS PROJECT MGMT. SLS ENGINEERS ENVIRONMENTAL
P.O. Box 150 Glenville, WV 26351 (304) 462 5634
50061 Dilles Bottom Road Shadyside, OH 43947 (740) 671-8911
HONESTY, INTEGRITY, QUALITY

TOPO SECTION OF: VADIS 7.5'

FILE NO. 6072 DATE: 10/01/14 SCALE: 1"=1,000'

FORM WW 6

GERTRUDE HINTERER LEASE
128.54 ACRES±



WELL NO. 2
A.P.I. #47-017-5441
UTM COORDINATES
(NAD 83 METERS)

(N) 4,329,322
(E) 521,814

WELL NO. 2
A.P.I. #47-017-5441
STATE PLANE COORDINATES

(N) 769,437
(E) 2,071,553

NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A DEED RECORDED IN DEED BOOK 172 AT PAGE 82.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JULY, 2014.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

WELL NO. 2
A.P.I. #47-017-5441

SLS

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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 Gregory A. Smith

GREGORY A. SMITH LICENSED No. 677 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE AUGUST 14, 20 09
REVISED DATE SEPTEMBER 10, 20 14
OPERATORS WELL NO. GERTRUDE HINTERER #2
API WELL NO. 47 — 017 — 05441W
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 6072P2R2 (286-05)
SCALE 1" = 500'
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE)

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

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

LOCATION:
ELEVATION 859' WATERSHED COVE CREEK
DISTRICT COVE COUNTY DODDRIDGE QUADRANGLE VADIS 7.5'
SURFACE OWNER RILEY FAYE HINTERER, ET AL ACREAGE 128.26± (TAXED)
ROYALTY OWNER RILEY FAYE HINTERER, ET AL LEASE ACREAGE 128.54±
PROPOSED WORK: LEASE NO. ___
DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION X PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
PHYSICAL CHANGE IN WELL (SPECIFY) ___ TARGET FORMATION BIG INJUN
ESTIMATED DEPTH 2,010'

COUNTY NAME
PERMIT

WELL OPERATOR PROFESSIONAL OILFIELD SERVICES
ADDRESS 221 1/2 S. 6TH ST., P.O. BOX 247
BYESVILLE, OH 43723

DESIGNATED AGENT CLINTON MEANS
ADDRESS RR 42 BOX 47-B
WEST UNION, WV 26456

FORM WW 6

LONG. 80°44'52.3" — 11,210'

GERTRUDE HINTERER LEASE
128.54 ACRES±

LATITUDE 39°07'30"

LONGITUDE 80°45'00"

LAT. 39°08'45.7" — 4,490'

NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD '27.
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4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

WELL NO. 2
A.P.I. #47-017-5441
UTM COORDINATES
(NAD 83 METERS)

(N) 4,329,322
(E) 521,814

WELL NO. 2
A.P.I. #47-017-5441
STATE PLANE COORDINATES

(N) 769,437
(E) 2,071,553

WELL NO. 2
A.P.I. #47-017-5441

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STATE COUNTY PERMIT

GREGORY A. SMITH
LICENSED
No. 677
STATE OF
WEST VIRGINIA
PROFESSIONAL SURVEYOR

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 607ZPR2 (286-05)
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

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

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