



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, September 23, 2019
WELL WORK PLUGGING PERMIT
Vertical Plugging

ENERVEST OPERATING, L.L.C., A LIMITED LIABILITY COMPANY
1001 FANNIN STREET
SUITE 800
HOUSTON, TX 77002

Re: Permit approval for E 889 SHRADER
47-033-03841-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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 889 SHRADER
Farm Name: SHRADER, DAVID
U.S. WELL NUMBER: 47-033-03841-00-00
Vertical Plugging
Date Issued: 9/23/2019

Promoting a healthy environment.

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47-033-03841P

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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. 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.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. This well is under a consent order and must be plugged under the terms of that agreement.

1) Date August 1, 2019
2) Operator's
Well No. E-889 David Shrader
3) API Well No. 47-033 - 03841

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production X or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1104' Watershed Little Tenmile Creek
District Sardis County Harrison Quadrangle Wallace

6) Well Operator EnerVest Operating, L.L.C. 7) Designated Agent Barry K. Lay
Address 300 Capitol Street, Suite 200 Address Same
Charleston, WV 25301

8) Oil and Gas Inspector to be notified Name Sam Ward
Address P.O. Box 2327
Buckhannon, WV 26201
9) Plugging Contractor Name TBD
Address _____

10) Work Order: The work order for the manner of plugging this well is as follows:

See Attached Plugging Procedure

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Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector SP Dwane Date 8/8/2019

E 889 Shrader (David Shrader #1)

API# 47-033-03841

Elevation: 1104' KB – 8' KB

Latitude: 39.382414

Longitude: -80.448644

E 889 Shrader Well Data

Casing: 8-5/8" 20 ppf Surface Csg @ 649' KB – Cemented to Surface
 4-1/2" 10.5 ppf Production Csg @ 4869' KB – TOC Estimate 1487'
 2-3/8" tbg – Seating Collar @ 4773'
 Packer @ 2303'

TD: 4955'

Latch Down: 4864'

Perforations: 2401'-2416' KB, 3320'-3348' KB, 3650'-3722' KB, 4790'-4799' KB

Coal: 115'-117', 138'-141', 351'-353'

Fresh Water: 140', 409', 930'

Salt Water: 1285'

E 889 Shrader Procedure:

1. Notify State Inspector, Sam Ward – (304)-389-7583 – Samuel.D.Ward@wv.gov, 24 hours prior to commencing operations.
2. Prep E 889 Shrader location.
3. MIRU service rig, steel pits, work string of 5000' 2-3/8" EUE tbg, and other ancillary equipment.
4. Unseat Packer at 2303' and TOOH w/ 2-3/8" production tbg.
5. Perform csg Freepoint test on 4-1/2". Compare to estimated TOC.
6. RIH w/ 2-3/8" work string to bottom, approx. 4864'.
7. PU 10' off bottom.
8. Use rig tank and pump or MIRU cement crew and circulate hole with 6% gel.
9. TOOH to 4779' and set 150' cement plug F/ 4779' T/ 4629' (perfs @ 4790'-4799').
10. TOOH to 4600' and circulate hole with 6% gel. **WOC, TAG PLUG, ADD CEMENT IF NEEDED.**
11. TOOH to 3702' and set 150' cement plug F/ 3702' T/ 3552' (perfs @ 3650'-3722').
12. TOOH to 3530' and circulate hole with 6% gel. **WOC, TAG PLUG, ADD CEMENT IF NEEDED.**
13. TOOH to 3328' and set 150' cement plug F/ 3328' T/ 3178' (perfs @ 3320'-3348').
14. TOOH to 3150' and circulate hole with 6% gel. **WOC, TAG PLUG, ADD CEMENT IF NEEDED.**
15. TOOH to 2940' and set 150' cement plug F/ 2396' T/ 2246' (perfs @ 2401'-2416').
16. TOOH to 2210' and circulate hole with 6% gel. **WOC, TAG PLUG, ADD CEMENT IF NEEDED.**
17. TOOH w/ 2-3/8" tbg. **MAKING SURE GEL IS STILL ABOVE CEMENT, ADD GEL IF NEEDED.**
18. RIH with 4-1/2" csg ripper and rip csg at Freepoint. **~ 1300'**
19. Once ripped, PU 3', break circulation and thru 4-1/2" csg set 150' cement plug 75' in/out of cut. **WOC**
20. TOOH w/ 4-1/2" csg 30' about previous cement plug and circulate hole with 6% gel.
21. TOOH w/ 4-1/2" csg.
22. MIRU perforaters and perforate all Oil, Coal, FW, and Gas shows below 8-5/8" csg. FW @ 930'.
23. TIH w/ 2-3/8" work string to 1154' (50' below elevation of 1104') and set 275' cement plug F/ 1154' T/ 879' (51' over top of FW @ 930').

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8/8/19

24. TOOH with 2-3/8" work string to 724' and set 150' cement plug F/ 724' T/ 574'. (75' in/out of 8-5/8" shoe). **woc**
25. TOOH to 540' and circulate hole with 6% gel.
26. TOOH w/ 2-3/8" work string to 200' and set 200' cement plug F/ 200' T/ Surface (Surface Plug).
27. Erect a monument to WV DEP specifications (CSR 35-4-5.5 – sub "b").
28. Reclaim location and roads to WV DEP Specifications.

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WR-38

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OCT 23 1991
DEPT. OF ENERGY

31-Jul-91

API # 47-33-03841

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Reviewed Im6
Recorded _____

Well Operator's Report of Well Work

Farm name: HARVATH, WILLIAM Operator Well No.: E 889 SHRADER

LOCATION: Elevation: 1104.00 Quadrangle: WALLACE

District: SARDIS County: HARRISON
Latitude: 12400 Feet South of 39 Deg. 25Min. 0 Sec.
Longitude 9075 Feet West of 80 Deg. 25 Min. 0 Sec.

Company: EMAX OIL COMPANY
P.O. BOX 112
SALEM, WV 26426-0112

Agent: JOHN T. HASKINS

Inspector: TIM BENNETT
Permit Issued: 08/01/91
Well work Commenced: 10/5/91
Well work Completed: 10/11/91
Verbal Plugging
Permission granted on: _____
Rotary Cable Rig
Total Depth (feet) 5000
Fresh water depths (ft) 140, 409, 930

Salt water depths (ft) 1285

Is coal being mined in area (Y/N)? n
Coal Depths (ft): 115-117, 138-141
351-353

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	30		
8 5/8		649	220 sks
4 1/2		4859	600 sks

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OPEN FLOW DATA

30 foot

Producing formation Benson, Balltown, Speechley Pay zone depth (ft) 2401-4794
Gas: Initial open flow n/a MCF/d Oil: Initial open flow n/a Bbl/d
Final open flow 770 MCF/d Final open flow n/a Bbl/d
Time of open flow between initial and final tests n/a Hours
Static rock Pressure 625 psig (surface pressure) after 72 Hours

Second producing formation Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

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.

For: EMAX OIL COMPANY

By: John T. Haskins
Date: 10/21/91

HARA 3841

Benson	4790-4794	Sand 32,000#
Balltown	3658-3717	Sand 40,000#
Speechley	3320-3345	Sand 30,000#
30 foot	2401-2411	Sand 20,000#
Sand & Shale	0	115
Coal	115	117
Sand & Shale	117	138
Coal	138	141
Sand & Shale	141	351
Coal	351	353
Sand & Shale	353	1706
Big Lime	1706	1752
Keener	1752	1788
Big Injun	1788	1853
Squaw	1888	1898
Sand & Shale	1898	2406
30'	2406	2416
Sand & Shale	2416	3302
Speechley	3302	3351
Sand & Shale	3351	3635
Balltown	3635	3708
Sand & Shale	3708	4790
Benson	4790	4804
Sand & Shale	4804	5000 TD

47-033-0384 P



Select County: (033) Harrison
Select datatypes: (Check All)
Enter Permit #: 03841
Get Data Reset

- Table Descriptions
County Code Translations
Permit Numbering Series
Usage Notes
Contact Information
Disclaimer
WVGES Main
Pipeline-Plus New

WV Geological & Economic Survey:

Well: County = 33 Permit = 03841

Report Time: Thursday, February 14, 2019 10:42:35 AM

Location Information View Map

Table with columns: API, COUNTY, PERMIT, TAX, DISTRICT, QUAD_75, QUAD_15, LAT_DD, LON_DD, UTM_E, UTM_N

There is no Bottom Hole Location data for this well

Owner Information:

Table with columns: API, CMP_DT, SUFFIX, STATUS, SURFACE_OWNER, WELL_NUM, CO_NUM, LEASE, LEASE_NUM, MINERAL_OWN, OPERATOR_AT_COMPLETION, PROP_VD, PROP_TRGT_FM, TFM_EST_PR

Completion Information:

Table with columns: API, CMP_DT, SPUD_DT, ELEV DATUM, FIELD, DEEPEST_FM, DEEPEST_FMT, INITIAL_CLASS, FINAL_CLASS, TYPE, RIG, CMP_MTHD, TVD, TMD, NEW_FTG, KOD, G_BEF, G_AFT

Pay/Show/Water Information:

Table with columns: API, CMP_DT, ACTIVITY, PRODUCT, SECTION, DEPTH_TOP, FM_TOP, DEPTH_BOT, FM_BOT, G_BEF, G_AFT, O_BEF, O_AFT, WATER_QNTY

Production Gas Information: (Volumes in Mcf) * 2018 data are incomplete at this time

Table with columns: API, PRODUCING_OPERATOR, PRD_YEAR, ANN_GAS, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DCM

Production Oil Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil * 2018 data are incomplete at this time

Table with columns: API, PRODUCING_OPERATOR, PRD_YEAR, ANN_OIL, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DCM

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Production NGL Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil * 2018 data are incomplete at this time

Table with columns: API, PRODUCING_OPERATOR, PRD_YEAR, ANN_NGL, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DCM

Production Water Information: (Volumes in Gallons) * 2018 data are incomplete at this time

Table with columns: API, PRODUCING_OPERATOR, PRD_YEAR, ANN_WTR, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DCM

Stratigraphy Information:

Table with columns: API, SUFFIX, FM, FM_QUALITY, DEPTH_TOP, DEPTH_QUALITY, THICKNESS, THICKNESS_QUALITY, ELEV DATUM

47-033-03841P

4703303841	Original Log	Thirty-foot	Well Record	2406	Reasonable	10	Reasonable	1104	Ground Level
4703303841	Original Log	Benson	Well Record	4790	Reasonable	14	Reasonable	1104	Ground Level

Wireline (E-Log) Information:

API	LOG_TOP	LOG_BOTTOM	DEEPEST_FML	LOGS_AVAIL	SCAN	DIGITIZED	GR_TOP	GR_BOTTOM	D_TOP	D_BOTTOM	N_TOP	N_BOTTOM	L_TOP	L_BOTTOM	Y_TOP	Y_BOTTOM	S_TOP	S_BOTTOM	O_TOP	O_BOTTOM	INCH2	INCH5
4703303841	650	4940		G		Y	N	650	4940												N	Y

Downloadable Log Images: We advise you to save the log image file to your PC for viewing. To do so, right-click the .tif image of interest and select the save option. Then you can direct the file to a location of your choice. Please note these images vary in size and some may take several minutes to download, especially if using a 56k or slower dialup connection.

Quick Reference Guide for Log File Names For more info about WVGES scanned logs click [here](#)

FILENAME
4703303841g.tif

- geologic log types:
- d density (includes bulk density, compensated density, density, density porosity, grain density, matrix density, etc.)
 - e photoelectric adsorption (PE or Pe, etc.)
 - g gamma ray
 - i induction (includes dual induction, medium induction, deep induction, etc.)
 - l laterolog
 - m dipmeter
 - n neutron (includes neutron porosity, sidewall neutron--SWN, etc.)
 - o other¹
 - s sonic or velocity
 - t temperature (includes borehole temperature, BHT, differential temperature, etc.)
 - z spontaneous potential or potential
- mechanical log types:
- b cement bond
 - c caliper
 - o other¹
 - p perforation depth control or perforate

¹other logs may include, but are not limited to, such curves as audio, bit size, CCL--casing collar locator, continuous meter, directional survey, gas detector, guard, NCTL--Nuclear Cement Top Locator, radioactive tracer, tension

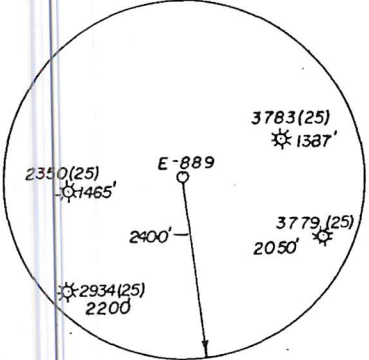
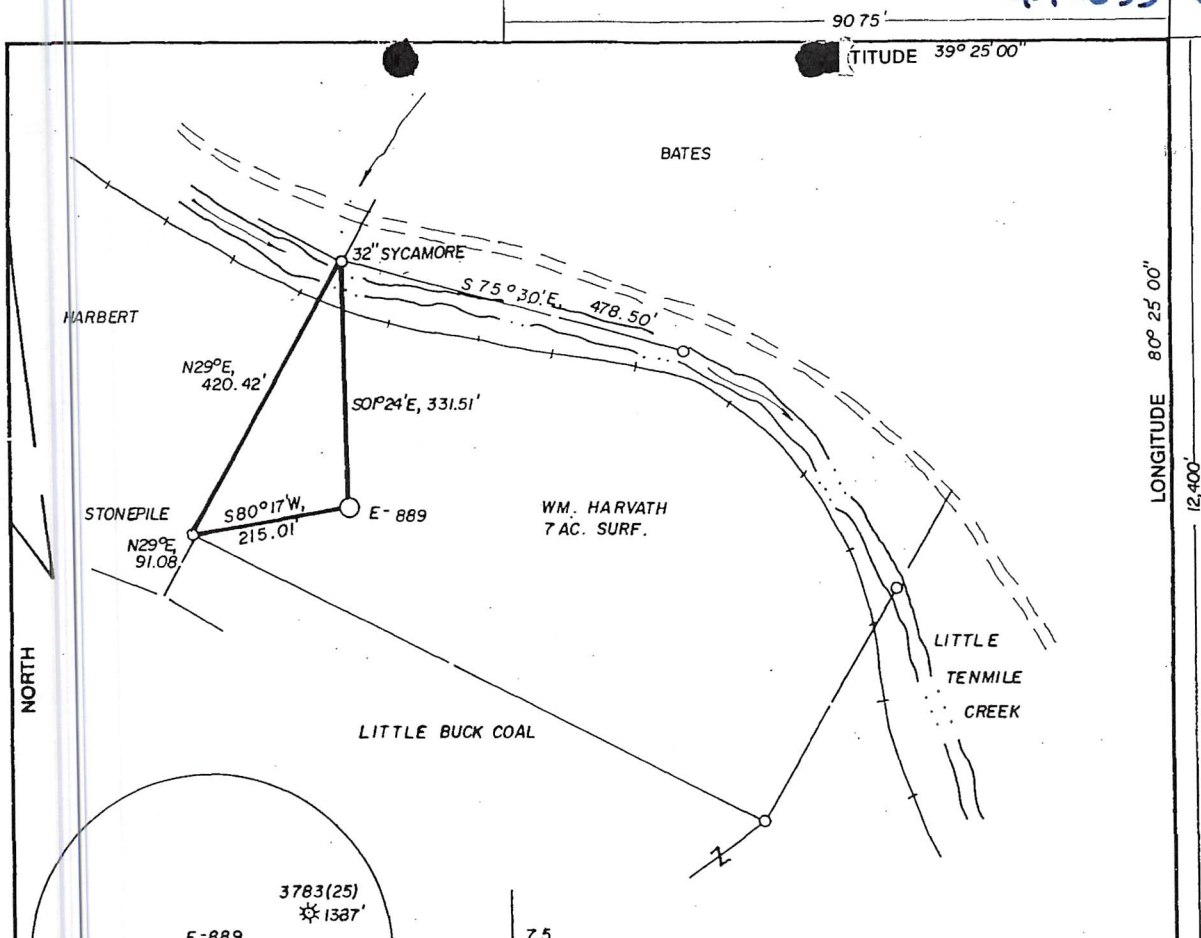
There is no Plugging data for this well

There is no Sample data for this well

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WELL REFERENCES:
 N84°15'W, 152' TO 13" CHERRY
 S0°30'E, 107.50' TO 12" RED MAPLE

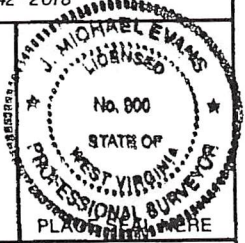
LAND SURVEYING SERVICES
 21 CEDAR LANE
 BRIDGEPORT, WV 26330
 PHONE: 304-842-2018

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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 200'
 MINIMUM DEGREE OF ACCURACY 1 IN 2500
 PROVEN SOURCE OF ELEVATION 5 M. 1050' SE OF LOC.
 AT ELEV. 984'

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 ENERGY.

(SIGNED) J. Michael Evans
 R.P.E. _____ I.L.S. NO. 900
 J. MICHAEL EVANS



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE MAY 28, 19 91
 OPERATOR'S WELL NO. E-889
 API WELL NO. OAVIO SHRADER

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ STATE COUNTY PERMIT
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1104' VIATER SHED LITTLE TENMILE CREEK
 DISTRICT SARDIS COUNTY HARRISON
 QUADRANGLE WALLACE

SURFACE OWNER WILLIAM HARVATH ACREAGE 7
 OIL & GAS ROYALTY OWNER DAVID SHRADER LEASE ACREAGE 7
 LEASE NO. 2295

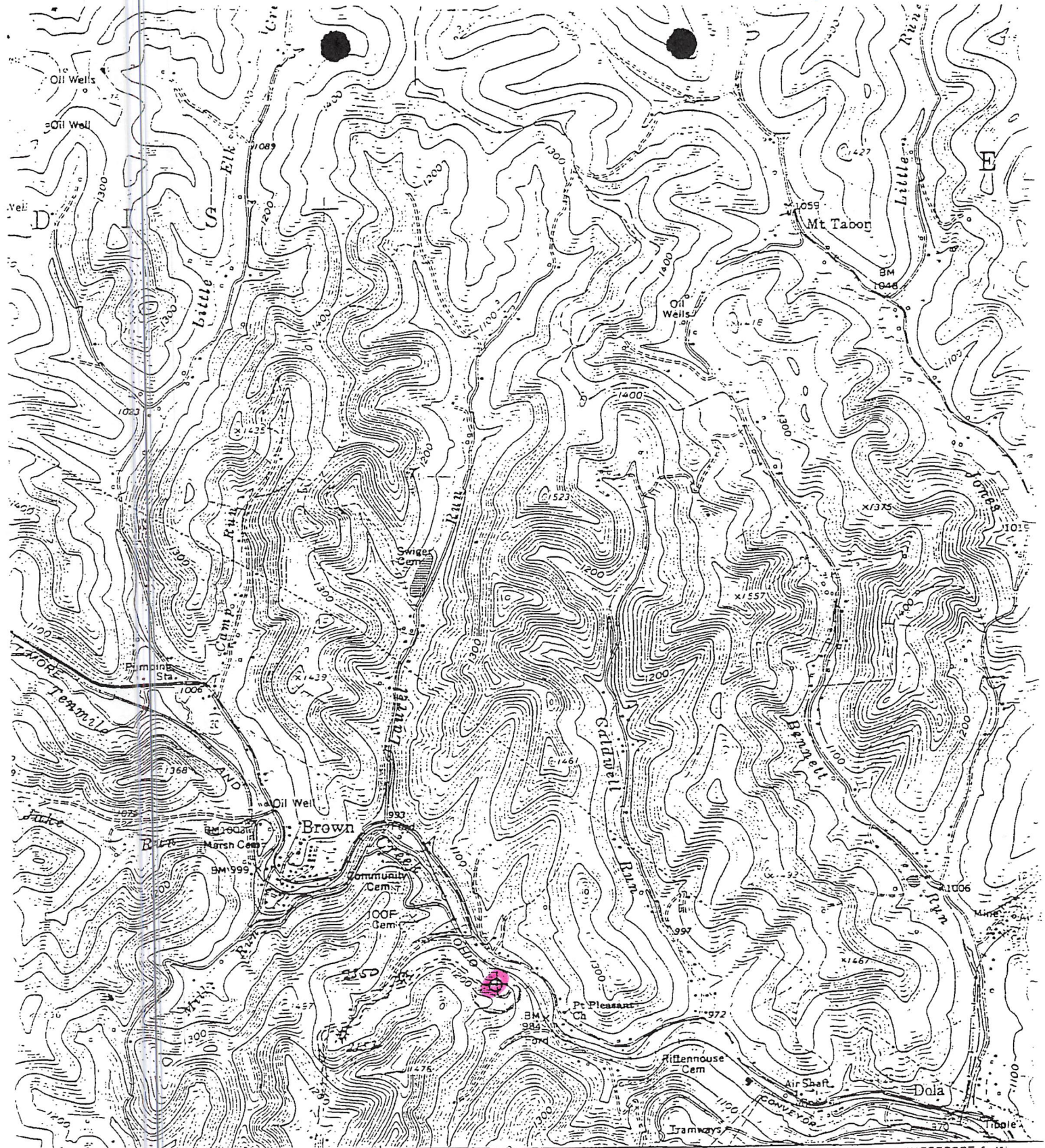
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR
 STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW
 FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION BEASON ESTIMATED DEPTH 5150'
 WELL OPERATOR E MAX OIL CO. DESIGNATED AGENT DARREL WRIGHT
 ADDRESS P.O. BOX 112 ADDRESS P.O. BOX 112
SALEM, WV 26426 SALEM, WV 26426

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 WV Department of Environmental Protection

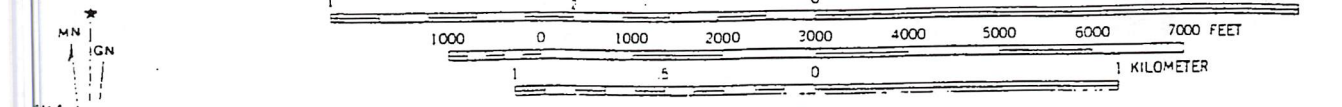
FORM WW-8

COUNTY NAME
 PERMIT



346 27°30' 347 348 (WOLF SUMMIT) 349 LUMBERPORT 5 MI. CLARKSBURG 10 MI.

SCALE 1:24,000



CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

DAVID SHRADER
E-889

47-033-03841P

WW-4A
Revised 6-07

1) Date: August 1, 2019
2) Operator's Well Number
E-889 David Shrader
3) API Well No.: 47 - 033 - 03841

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

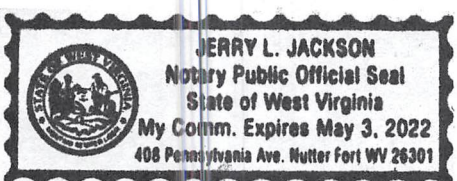
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name: Gary A. & Tina R. Marchiny ✓	Name: <i>Wain</i>
Address: 54 Pleasant Hill Road	Address: _____
Lumberport, WV 263868175	_____
(b) Name: James L. Harbert ✓	(b) Coal Owner(s) with Declaration
Address: 2408 Daybrook Road	Name: Virginia A, Tetrick Trust
Fairview, WV 265708596	Address: Willis Tetrick, II, et al Trust
(c) Name: _____	Tetrick Mineral Properties
Address: _____	Name: C/O Guy Corporation ✓
_____	Address: 92 16th St. FL 2
_____	Wheeling, WV 26003-3660
6) Inspector: Sam Ward	(c) Coal Lessee with Declaration
Address: P.O. Box 2327	Name: _____
Buckhannon, WV 26201	Address: _____
Telephone: 304-389-7583	_____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator: EnerVest Operating, L.L.C.
 By: Barry K. Lay *Barry K. Lay*
 Its: Senior Vice President and General Manager
 Address: 300 Capitol Street, Suite 200
 Charleston, WV 25301
 Telephone: 304-343-5505

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Subscribed and sworn before me this 6th day of August 2019
[Signature] Notary Public
 My Commission Expires May 3, 2022

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 depprivacyoffier@wv.gov.

SURFACE OWNER WAIVER

Operator's Well
Number

E-889 David Shrader

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (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 **FIVE (5) 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 the or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...".

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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.

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 Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

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
ETC.

FOR EXECUTION BY A CORPORATION,

Gary M. Maroney
Signature

Date 8-10-19 Name _____
By _____
Its _____

Signature Date

WW-9
(5/16)

API Number 47 - 033 - 03841
Operator's Well No. _____

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EnerVest Operating, L.L.C. OP Code 30-9999

Watershed (HUC 10) Little Tenmile Creek Quadrangle Wallace

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: No Pit To Be Built (Portable Containment Equipment)

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain No Pit To Be Built. Any well effluent will be contained in tanks and properly disposed of offsite.) _____

*SDW
8/8/19*

Will closed loop system be used? If so, describe: _____

Drilling medium anticipated for this well (vertical and horizontal)? 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. At discretion of Contractor.

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

-Landfill or offsite name/permit number? _____

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 April 1, 2016, 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 *Barry K Lay*
Company Official (Typed Name) Barry K. Lay
Company Official Title Senior Vice President and General Manager

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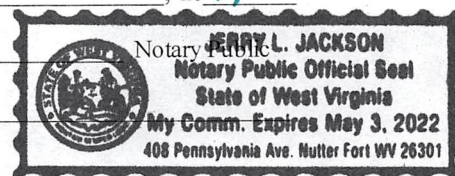
AUG 15 2019

WV Department of
Environmental Protection

Subscribed and sworn before me this 6th day of August, 20 19

[Signature]

My commission expires May 3, 2022



Proposed Revegetation Treatment: Acres Disturbed 2.00 Prevegetation pH 6.5

Lime according to ph test Tons/acre or to correct to pH 7.0

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Hay or Straw 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	25	Orchard Grass	25
Birdsfoot Treefoil	15	Birdsfoot Treefoil	15
Ladino Clover	10	Ladino Clover	10

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: SPD Wawetta

Comments: _____

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Environmental Protection

Title: Land Manager
OOG Inspector
[Signature]

Date: 8/8/19
8/08/2019

Field Reviewed? () Yes (X) No

N/A

WW-9- GPP
Rev. 5/16

Page 1 of 2
API Number 47 - 033 - 03841
Operator's Well No. _____

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

Operator Name: EnerVest Operating, L.L.C.

Watershed (HUC 10): Little Tenmile Creek Quad: Wallace

Farm Name: _____

- 1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

Plugging of shallow well. All residual fluids will be captured in portable flowback tanks for proper disposal.

- 2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

Plugging of shallow well. All residual fluids will be captured in portable flowback tanks for proper disposal.

- 3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

Closest Water Body: Katy Lick Run 2,500' +

- 4. Summarize all activities at your facility that are already regulated for groundwater protection.

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- 5. Discuss any existing groundwater quality data for your facility or an adjacent property.

N/A

[Empty rectangular box for text entry]

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

[Empty rectangular box for text entry]

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

[Empty rectangular box for text entry]

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

[Empty rectangular box for text entry]

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Environmental Protection

Signature: [Handwritten Signature]

Date: 8/8/2019



David Shrader E-889

47-033-03841P

Sardis

Harrison

EXISTING ROAD

SHRADER DAVID E-889

FOR PLUGGING NO PITTS WILL BE BUILT

LOMA E SWIGER-3841

SHRADER DAVID E-889

CSX Transportation

CSX Transportation

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20

Date Printed: 2019-07-30





David Shrader E-889

ENERVEST

47-033-0384A

WEBB J E HEIRS-1

E STROTHER 1 -K-L-269

Sardis
Harrison

Strother Hollow Rd

STROTHER E ESTATE-2

Strother Hollow Rd

Fullen Farm Rd

West Virginia

SE MARTIN-2141

Tater Patch Rd

Wallace Pike

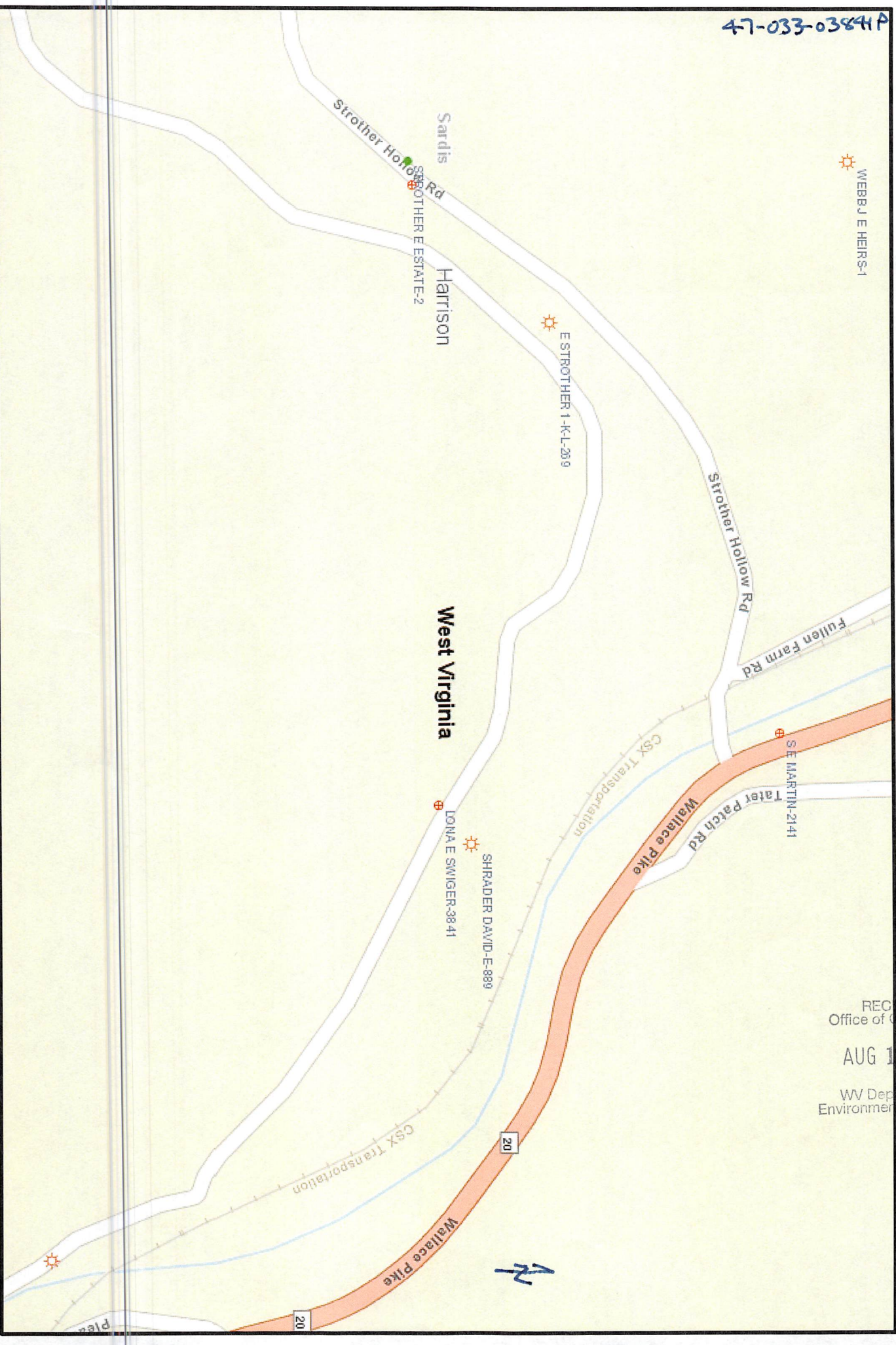
CSX Transportation

SHRADER DAVID-E-889
LONA E SWIGER-3841



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Date Printed: 2019-07-30



WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-033-03841 WELL NO.: E-889 David Shrader

FARM NAME: William Harvath

RESPONSIBLE PARTY NAME: Jerry L. Jackson

COUNTY: Harrison DISTRICT: Sardis

QUADRANGLE: ~~Wolf~~ Wallace

SURFACE OWNER: Gary A. Marchiny et al

ROYALTY OWNER: David Shrader

UTM GPS NORTHING: 4359372.8

UTM GPS EASTING: 547503.1 GPS ELEVATION: 1104'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- Data Collection Method:
Survey grade GPS ____: Post Processed Differential ____
Real-Time Differential ____
Mapping Grade GPS ____: Post Processed Differential ____
Real-Time Differential ____
- Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Signature

Land Manager
Title

8/01/2019
Date

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