



west virginia department of environmental protection

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

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

Monday, April 2, 2018
WELL WORK PERMIT
Vertical / New Drill

GREYLOCK CONVENTIONAL, LLC
500 CORPORATE LANDING

CHARLESTON, WV 25311

Re: Permit approval for HESS NO. 7
47-021-09103-00-00

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

A blue ink signature of James A. Martin, written in a cursive style.

Operator's Well Number: HESS NO. 7
Farm Name: WENDY M. & STEVEN R. MA
U.S. WELL NUMBER: 47-021-09103-00-00
Vertical New Drill
Date Issued: 4/2/2018

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, drilling ceased, completion of any other permitted well work and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

CK#
501393
\$650⁰⁰

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: Greylock Conventional, LLC

494521205	Gilmer	Glennville	Glennville 7.5
Operator ID County District Quadrangle			

2) Operator's Well Number: Hess #7 3) Elevation: 974'

4) Well Type: (a) Oil _____ or Gas X
(b) If Gas: Production X / Underground Storage _____
Deep _____ / Shallow X

5) Proposed Target Formation(s): Speechley, Warren, Gordon, Big Injun, Big Linn Proposed Target Depth: 3,124'
6) Proposed Total Depth: 3,274' Feet Formation at Proposed Total Depth: Speechley
7) Approximate fresh water strata depths: 65'
8) Approximate salt water depths: 1640'

9) Approximate coal seam depths: " _____ " 100'-200'

10) Approximate void depths, (coal, Karst, other): None reported in offset wells

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)

Drill and complete a vertical well as follows: After setting and cementing the surface casing string using Type 1 and/or an approved light cement, operator will drill to approximately 3274' and run production casing. Multiple formations will be foam fraced depending well log analysis. Cement will be placed above the shallowest known producing horizon and will be verified by bond log.

13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	
Conductor	13 3/8"	LS,R3	43.6#	40'	40'	NA
Fresh Water						
Coal	7"	LS,R3	16#	500'	500'	CTS
Intermediate						
Production	4 1/2"	WT65,R3	9.5#	3274'	3274'	328
Tubing						
Liners						

DM

Packers: Kind: _____
Sizes: _____
Depths Set _____

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APR 2 2018

WV Department of
Environmental Protection

WW-2A
(Rev. 6-14)

1). Date: 12 FEBRUARY 2018
2.) Operator's Well Number Hess #7
State County Permit
3.) API Well No.: 47- 021 - 0910

**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 Wendy & Steven Mathess
Address 704 Stone Lick Rd
Jane Lew, WV 26378
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Danny Mullins
Address 220 Jack Acres Rd
Buckhannon, WV 26201
Telephone 304-932-6844

5) (a) Coal Operator
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name _____
Address NO DECLARANT
(c) Coal Lessee with Declaration
Name _____
Address _____

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

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:

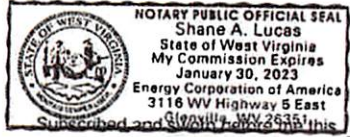
- Personal Service (Affidavit attached)
- Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

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.

Well Operator: Grevlock Conventional, LLC
By: Don C Supcoe III
Its: Director of Land Operations and Permitting
Address: 500 Corporate Landing
Charleston, WV 25311
Telephone: 304-925-6100
Email: dcsupcoe@grevlockenergy.com
Subscribed and sworn to on 22 day of FEBRUARY, 2018



Notary Public
My Commission Expires JANUARY 30, 2023
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

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WW-2A Surface Waiver
(4/16)

SURFACE OWNER WAIVER

County 021

Operator Greasek CONVENTIONAL, LLC
Operator well number Hess #7

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, WW-9, 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 _____

Company Name
By _____
Its _____ Date _____

Print Name

Signature Date _____

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Office of Oil and Gas
MAR 12 2018
WV Department of
Environmental Protection

WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Gilmer
Operator Greylock Conventional, LLC Operator's Well Number Hess #7

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by WV Code 22-6-15, 16 or 17, must be filed with the Chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 extension 1654

WAIVER

The undersigned coal operator _____ / owner _____ / lessee _____ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

_____ Signature	Date _____	Company Name _____ By _____ Its _____	_____ _____ _____ Signature	_____ _____ _____ Date
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**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
EC Hess	Equitable Gas Co	1/8	177/195
Farmout from Equitable Gas Co	EAE Predecessor to Greylock Conventional, LLC	1/8	231/375

**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.

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Environmental Protection

Well Operator:
By: Its:

Greylock Conventional, LLC

Don C Supcoe III 
Director of Land Operations and Permitting

WW-2B1
(5-12)

Well No. Hess #7

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 Fairway Labs
Sampling Contractor SLS Land & Energy Development

Well Operator Greylock Energy
Address 500 Corporate Landing
Charleston, WV 25311
Telephone 304-925-6100

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 underlining 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.

underlining

There appears to be 5 parcels that fall within 1000' of the proposed site. Therefore samples will be offered and taken as required.

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Possible Water Purveyors for Hess #7 Well

12/14

Wendy M. & Steven R. Mathess

704 Stone Lick Rd.

Jane Lew, WV 26378

12/22

James Bowring & Sara Grinnell

935 McCants Dr.

Mt. Pleasant, SC 29464

12/23 & 24

Billy B. & Marjorie H. Burke

P.O. Box 300

Sand Fork, WV 26430

6/18

Jones Land & Development LLC

P.O. Box 1

Sand Fork, WV 26430

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P.O. Box 300

Sand Fork, WV 26430

6/18

Jones Land & Development LLC

P.O. Box 1

Sand Fork, WV 26430

> Selected for sampling

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WW-9
(5/16)

API Number 47 - 021 - _____
Operator's Well No. Hess #7 _____

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

Operator Name Greylock Conventional, LLC OP Code 494521205

Watershed (HUC 10) Jakes Run Quadrangle Glennville 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

If so, please describe anticipated pit waste: Drill Cuttings

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 30

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 _____)

Will closed loop system be used? If so, describe: No

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air/Fresh water

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

Additives to be used in drilling medium? Soap, Klstay

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) Cement/Lime

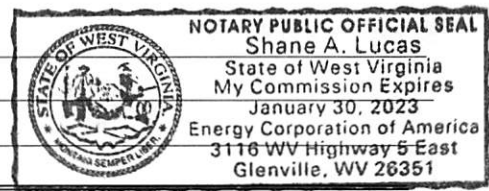
-Landfill or offsite name/permit number? _____

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 [Signature]
Company Official (Typed Name) Don C Supcoe III
Company Official Title Director of Land Operations and Permitting



Subscribed and sworn before me this 22 day of FEBRUARY, 20 18
[Signature] Notary Public

My commission expires JANUARY 30, 2023

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MAR 19 2018
WV Department of Environmental Protection

Proposed Revegetation Treatment: Acres Disturbed 1.3 +/- Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 1/3 TON lbs/acre

Mulch Hay 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

DM

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: _____

Comments: _____

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Title: Danny Nellis O&G Inspector Date: 2-22-18

Field Reviewed? () Yes () No

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

Operator Name: Greylock Conventional, LLC
Watershed (HUC 10): Ellis Creek Quad: Glenville 7.5
Farm Name: Hess

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

Earthen pit will be constructed to WV DEP standards. Pit will be tested, and Lime will be applied to achieve a PH level to 7.0+. Should excessive chlorides be present, the fluids will be evaluated, diluted with fresh water, or disposed of at a WV DEP approved facility. Solids will be allowed time to drop out.
No fertilizer will be stored on site. Operating fluids such as fuel, oil, and lubricants will be stored on site within secondary containment.

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

Construction and drilling equipment will be monitored and inspected every shift for possible leaks and failures.
Earthen pit and secondary containment will be monitored and inspected every shift for leaks and failures.
Spill kits will be on site.

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

An unknown drain into Ellis Creek is the closest water body at approximately 1,000ft. No known public water intakes within the area.

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

N/A

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Environmental Protection

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

No known groundwater quality data for the area. Samples have been offered for non-public sources within a 1,000' radius of the proposed well.

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

No waste material will be used for deicing purposes, or fill material on the property.

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.

All employees will be familiar with the contents of the GPP and how to implement it. During routine JSA meetings, the GPP will be discussed. Safe work practices shall protect the groundwater from contamination per company policy.

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

ALL GGP elements and ^{re}quirements will be inspected upon every shift. Work shall cease and not commence until any problem is remediated and documented.

Signature: _____



Date: _____

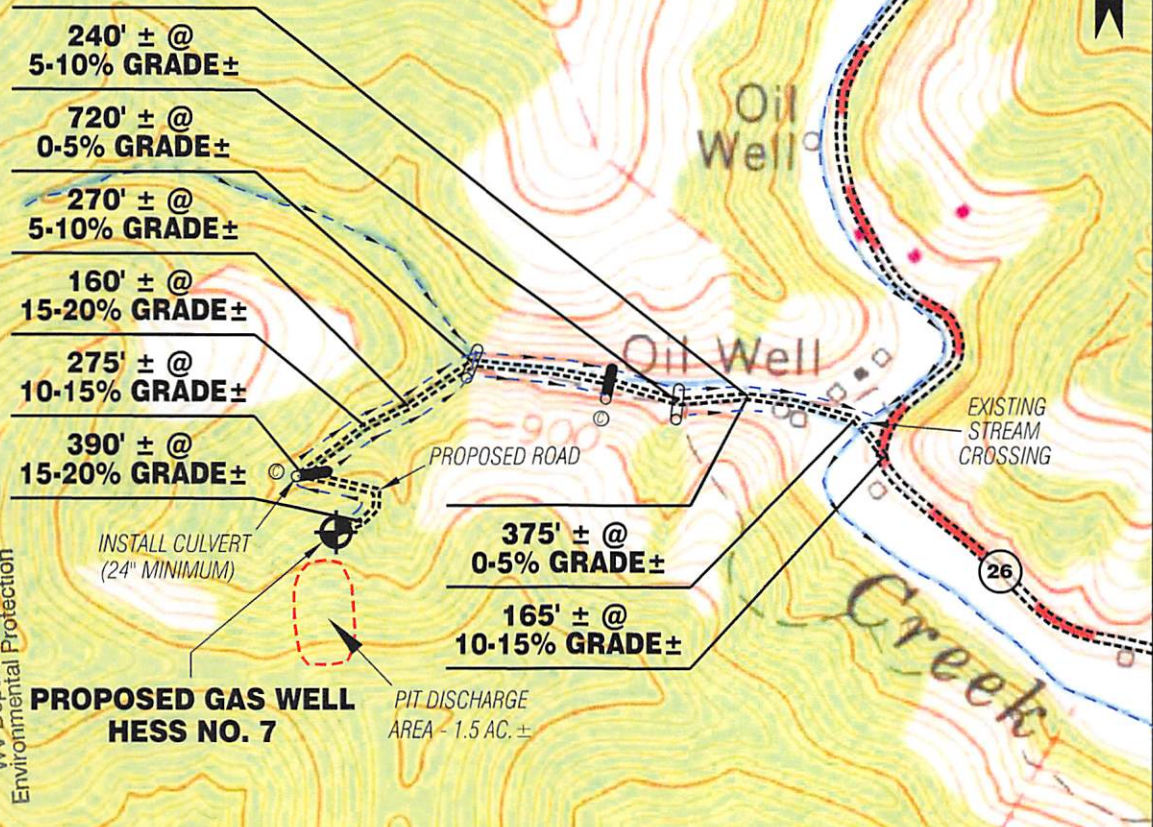
2/22/18

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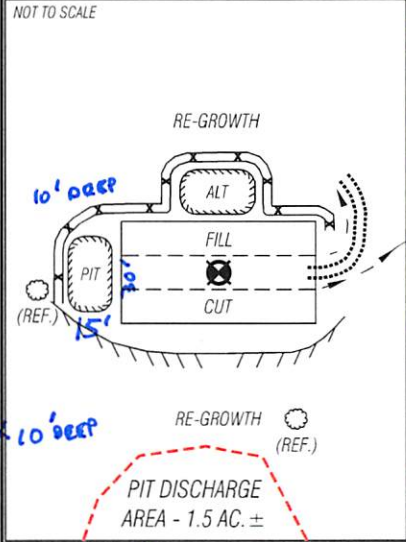
GREYLOCK ENERGY HESS LEASE WELL NO. 7



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Detail Sketch for Proposed HESS No. 7 Well



PIT NEEDS TO BE BUILT IN CUT. gwm

IDM

PIT 15' x 30' x 10' DEEP gwm 4/3/2018

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. REGULATION. 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.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL.

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES).

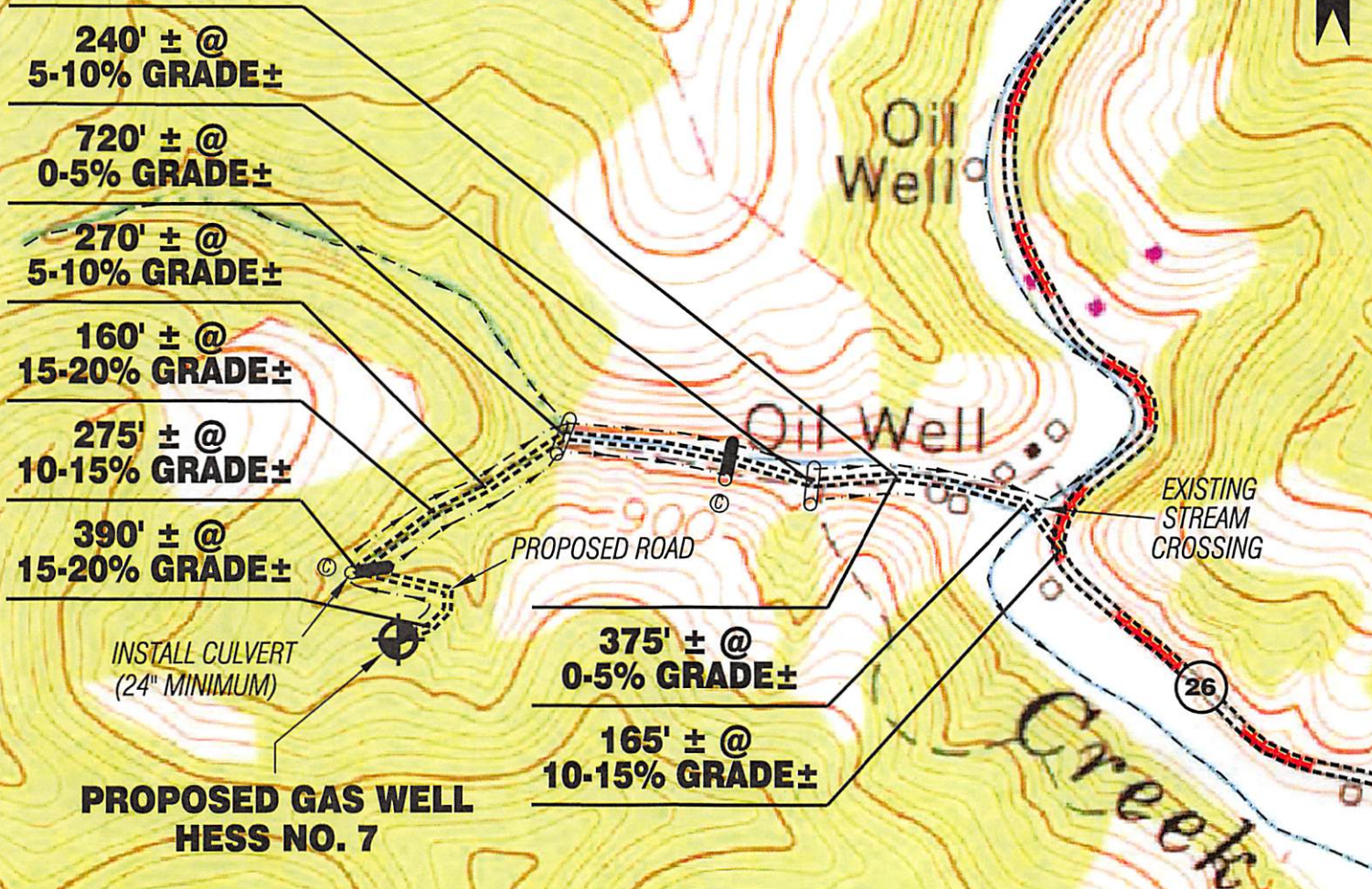


DRAWN BY: K.G.M.	FILE NO. 8785	DATE 02-28-18	CADD FILE: 8785REC7.dwg
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TOPO SECTION OF USGS
GLENVILLE 7.5' QUADRANGLE

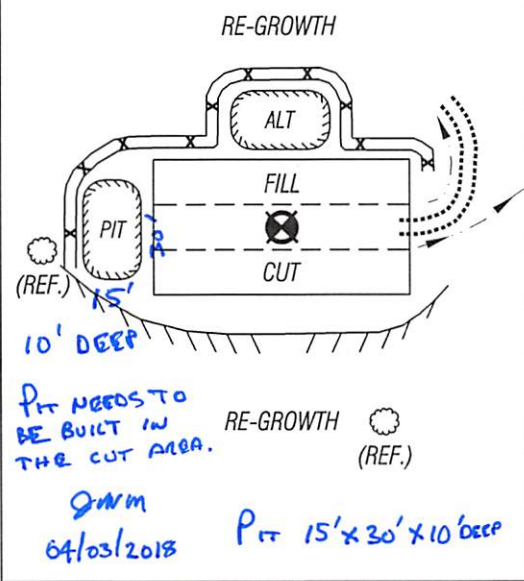
- = EXISTING CULVERT
- = PROPOSED CULVERT 12" MIN. UNLESS OTHERWISE NOTED
- = PROPOSED STREAM CROSSING (IF APPLIES)

GREYLOCK ENERGY HESS LEASE WELL NO. 7



Detail Sketch for Proposed HESS No. 7 Well

NOT TO SCALE



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. REGULATION. 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.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL.

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES).



- = EXISTING CULVERT
- = PROPOSED CULVERT 12" MIN. UNLESS OTHERWISE NOTED
- = PROPOSED STREAM CROSSING (IF APPLIES)

TOPO SECTION OF USGS
GLENNVILLE 7.5' QUADRANGLE

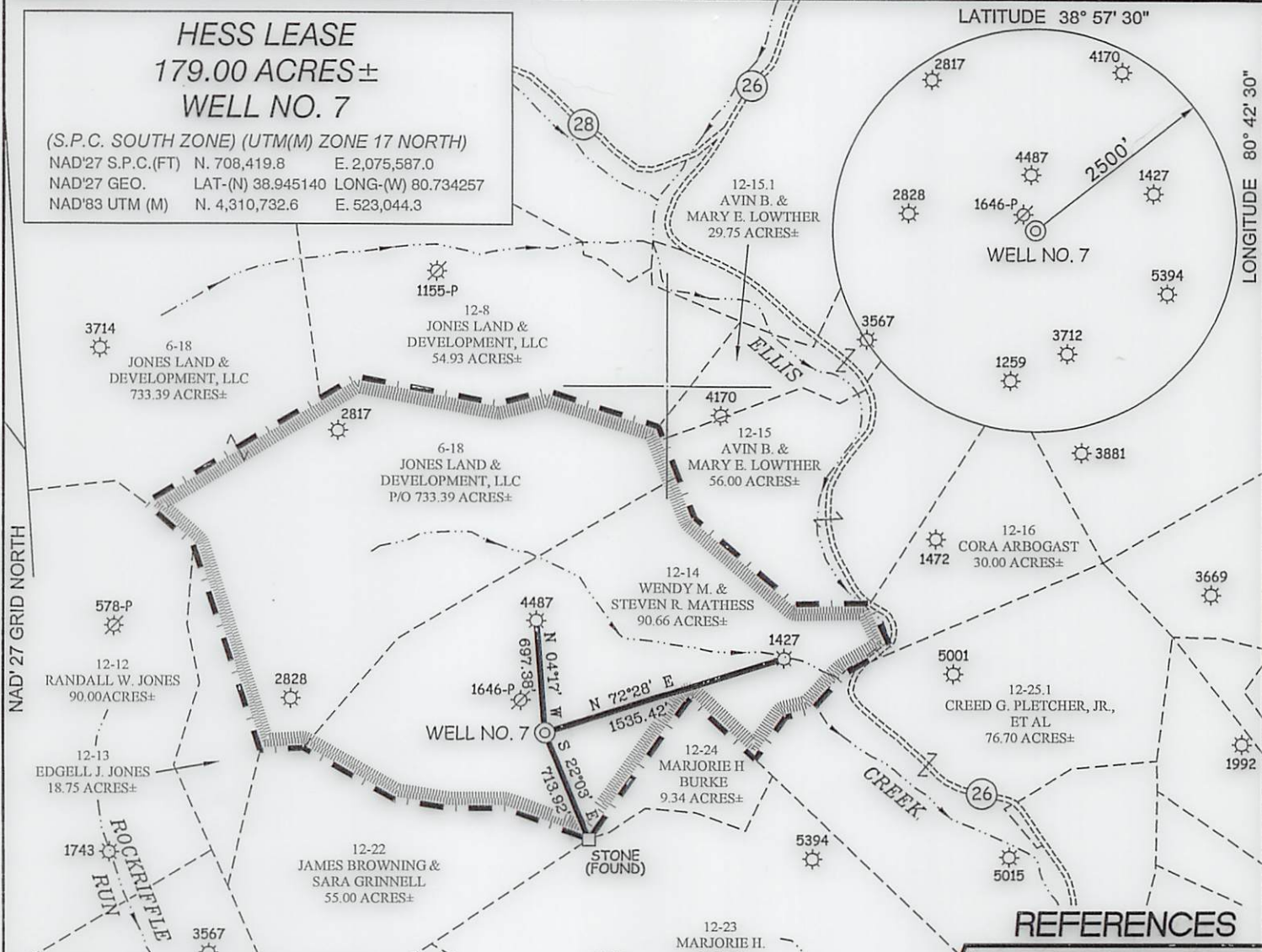


DRAWN BY K.G.M.	FILE NO. 8785	DATE 02/05/18	CADD FILE: 8785REC7.dwg
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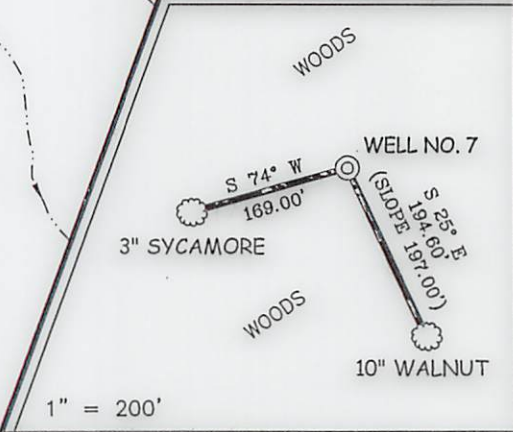
HESS LEASE
179.00 ACRES±
WELL NO. 7

(S.P.C. SOUTH ZONE) (UTM(M) ZONE 17 NORTH)
NAD'27 S.P.C.(FT) N. 708,419.8 E. 2,075,587.0
NAD'27 GEO. LAT.-(N) 38.945140 LONG.-(W) 80.734257
NAD'83 UTM (M) N. 4,310,732.6 E. 523,044.3

NAD' 27 GRID NORTH



REFERENCES



LEGEND

- LEASE BOUNDARY: [Symbol]
- SURFACE LINE: [Symbol]
- TIE LINE: [Symbol]
- CREEK: [Symbol]
- ROAD: [Symbol]
- COUNTY ROUTE: [Symbol]
- PROPOSED WELL: [Symbol]
- EXISTING WELL: [Symbol]
- PERMITTED WELL: [Symbol]
- TAX MAP-PARCEL: [Symbol]

- NOTES ON SURVEY**
1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
 2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A DEED DATED 11/8/2011 AND RECORDED IN DEED BOOK 503 PG. 291.
 3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF GILMER COUNTY ON FEBRUARY 1, 2018.
 4. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 01/29/18.

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26031 • (304) 462-5634
www.slsurveys.com

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE FEBRUARY 6, 20 18
REVISED _____, 20 ____
OPERATORS WELL NO. HESS NO. 7
API WELL NO. 47 - 021 - 09103
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 8785P7.dwg
SCALE 1" = 1000'
HORIZONTAL & VERTICAL CONTROL DETERMINED BY 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 974' WATERSHED ELLIS CREEK
DISTRICT GLENVILLE COUNTY GILMER QUADRANGLE GILMER 7.5'
SURFACE OWNER WENDY M. & STEVEN R. MATHLESS ACREAGE 90.60±
ROYALTY OWNER E. C. HESS, ET AL LEASE ACREAGE 179.00±
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION SPEECHLEY
ESTIMATED DEPTH 3,024'

WELL OPERATOR GREYLOCK CONVENTIONAL, LLC DESIGNATED AGENT DON SUPCOE III
ADDRESS 500 CORPORATE LANDING ADDRESS 500 CORPORATE LANDING
CHARLESTON, WV 25311 CHARLESTON, WV 25311

COUNTY NAME
PERMIT

21-09103

