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west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Friday, November 1, 2019  
WELL WORK PLUGGING PERMIT  
Vertical Plugging

CORNERSTONE MINING, LLC  
200 CAPITOL STREET

CHARLESTON , WV 25301

Re: Permit approval for D-5  
47-055-00068-00-00

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: D-5  
Farm Name: POCA LAND CORP.  
U.S. WELL NUMBER: 47-055-00068-00-00  
Vertical Plugging  
Date Issued: 11/1/2019

## 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.

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### CONDITIONS

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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.

1) Date August 26, 2019  
2) Operator's  
Well No. 494521673  
3) API Well No. 47-055 - 00068

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  / Liquid injection  / Waste disposal  /  
(If "Gas, Production  or Underground storage  ) Deep  / Shallow

5) Location: Elevation 2700 Watershed Crane Creek  
District Rock County Mercer Quadrangle Crumpler

6) Well Operator Cornerstone Mining, LLC 7) Designated Agent Derrick Kegley  
Address 150 Courthouse Rd, Suite 302 Address 150 Courthouse Rd, Suite 302  
Princeton, WV 24740 Princeton, WV 24740

8) Oil and Gas Inspector to be notified Name Gary Kennedy  
Address 66 Old Church Lane  
Pipestem, WV 25979  
9) Plugging Contractor Name Keystone Wireline Inc.  
Address 380 Southpointe Blvd, Suite 300  
Canonsburg, PA 15317

10) Work Order: The work order for the manner of plugging this well is as follows:  
Check tubing/casing pressures. Load hole with 6% gelled water. Run in hole with wireline to determine top of cement. Cut 4-1/2" casing at top of cement. Pull casing out of hole. Run cement bond log across 8-5/8" casing. Set cement plug from PBTD @ 4710' TO top of 4-1/2" casing cut to 100' above casing cut. Set gel plug up to 2,766'. Set cement plug from 2,766' to 2,566'. Set gel plug up to (100' below 8-5/8" casing). Set cement plug from 640' to 440'. If possible, cut and remove 8-5/8" casing (based upon bond log). Set cement plug from 440' to surface. Erect monument.

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

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Work order approved by inspector GARY KENNEDY  
by phone. SK gmm

Date OCT 31 2019  
WV Department of  
Environmental Protection



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Rotary X Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas X \_\_\_\_\_  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind) \_\_\_\_\_

Quadrangle Crumpler

Permit No. MER-68

Company <u>Texas International Petroleum Corp</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>Charleston, West Virginia</u>				
Farm <u>Pocahontas Land Corp. Acres 135.37</u>	Size <u>20-16</u>			Conductor.  Cemented w/375 sacks. Cemented to surface. 100 sacks.
Location (waters) <u>West Fork of Crane Creek</u>	<u>Cond. 16"</u>	<u>24'</u>	<u>24'</u>	
Well No. <u>D-5</u> Elev. <u>2666.07'</u>	<u>13-10"</u>			
District <u>Rock</u> County <u>Mercer</u>	<u>9 5/8</u>			
The surface of tract is owned in fee by _____	<u>8 5/8</u>	<u>540'</u>	<u>540'</u>	
<u>Pocahontas Land Corporation</u>	<u>7</u>			
Address <u>Bluefield, West Virginia</u>	<u>5 1/2</u>			
Mineral rights are owned by <u>Pocahontas Land Corp.</u> Address <u>Bluefield, W. Va.</u>	<u>4 1/2</u>	<u>4757'</u>	<u>4757'</u>	
Drilling Commenced <u>12/7/77</u>	<u>3</u>			
Drilling Completed <u>12/16/77</u>	<u>2</u>			
Initial open flow _____ cu. ft. _____ bbls.	Liners Used			
Final production <u>539M</u> cu. ft. per day _____ bbls.				
Well open <u>8</u> hrs. before test <u>800</u> RP.				

Well treatment details:

Attach copy of cementing record.

Ran gamma ray/collar log. PBD 4711'. Spotted 500 gallons 15% HCl.  
Perforated 4612'-22', 2SPF, 21 shots. Loaded hole; broke Weir with static head. Fraced w/797 barrels gelled water. 15,000# 80/100 sand and 55,000# 20/40 sand. ATR 42.5 BPM, ATP 1300 PSI. ISIP vacuum.

Coal was encountered at 150'-152', 197'-199', 349'-353' Inches  
Fresh water 70', 175' Feet Salt Water \_\_\_\_\_ Feet  
Producing Sand WEIR Depth 4563'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Surface Sand & Shale			0	20		
Sand & Shale			20	65		
Sand			65	137		Fresh H <sub>2</sub> O @ 70'.
Sand			137	150		
Coal			150	152		
Sand			152	197		2" of H <sub>2</sub> O @ 175'.
Coal			197	199		
Shale			199	225		
Shale			225	243		
Sand			243	349		
Sand			349	353		
Coal			353	585		
Shale			585	742		
Shale			742	887		
Red Rock & Shale			887	898		
Sand			898	935		
Shale			935	1302		
Sand & Shale			1302	1421		
Sand			1421	1486		
Shale			1486	1553		
Sand			1553	1584		
Shale & Sand			1584	1633		
Sand			1633	1711		
Red Rock & Shale			1711	1721		
Red Rock & Shale			1721	1809		

(over)

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Shale			1809	2315		
Shale			2315	2330		
Upper Maxton Sand			2330	2356		
Sand, Shale & Red Rock			2356	2484		
Sand			2484	2706		
Sandy Shale			2706	2739		
Sand			2739	2844		
Sand & Shale			2844	2853		
Red Rock			2853	2962		
Little Lime			2962	3051		
Shale			3051	3111		
Sand			3111	3129		
Shale			3129	3201		
Sand			3201	3232		
Shale			3232	3296		
Sand & Shale			3296	3465		
Big Lime			3465	4274		
Sand & Shale			4274	4563		
Weir Sand			4563	4647		
Shale			4647	4775		T.D.

Date February 21, 1978APPROVED Division Manager OwnerBy \_\_\_\_\_  
(Title)

WW-4A  
Revised 6-07

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Office of Oil and Gas

SEP 27 2019

1) Date: August 26, 2019  
2) Operator's Well Number  
494521673  
3) API Well No.: 47 - 055 - 00068

WV Department of  
Environmental Protection 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 Pocahontas Land Corp	Name Cornerstone Mining, LLC
Address 800 Princeton Avenue	Address 150 Courthouse Road, Suite 302
P.O. Box 1517	Princeton, WV 24740
(b) Name Bluefield, WV 24701	(b) Coal Owner(s) with Declaration
Address	Name Met Resources, LLC
	Address P.O. Box 5064
	Princeton, WV 24740
(c) Name	Name
Address	Address
6) Inspector Gary Kennedy	(c) Coal Lessee with Declaration
Address 66 Old Church Lane	Name Cornerstone Mining, LLC
Pipestem, WV 25979	Address 150 Courthouse Road, Suite 302
Telephone 304.382.8402	Princeton, WV 24740

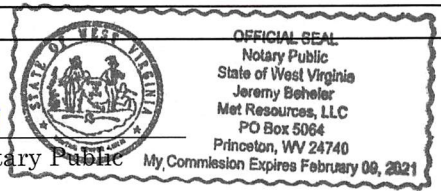
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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 Cornerstone Mining, LLC  
 By: Derrick Kegley *[Signature]*  
 Its: Land Agent  
 Address 150 Courthouse Road, Suite 302  
 Princeton, WV 24740  
 Telephone 304.320.5576



Subscribed and sworn before me this 4<sup>th</sup> day of September 2019  
*Jeremy Beheler*  
 My Commission Expires February 09, 2021

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](mailto:depprivacyofficer@wv.gov).

WW-4B

API No. 4705500068  
Farm Name \_\_\_\_\_  
Well No. D-5

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SEP 27 2019

WV Department of  
Environmental Protection

INSTRUCTIONS TO COAL OPERATORS  
OWNERS AND LESSEE

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

WAIVER

The undersigned coal operator \_\_\_\_\_ / owner \_\_\_\_\_ / lessee \_\_\_\_\_ / of the coal under this well location has examined this proposed plugging work order. 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.

Date: 9/20/19

By: *Richard D. Kuehner*  
Its MANAGER

47-055-00068P

WW-9  
(5/16)

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API Number 47 - 055 - 00068 P  
Operator's Well No. \_\_\_\_\_

SEP 27 2019

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

WV Department of Environmental Protection  
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Cornerstone Mining, LLC OP Code \_\_\_\_\_

Watershed (HUC 10) Crane Creek Quadrangle Crumpler

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: N/A

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 \_\_\_\_\_)

Will closed loop system be used? If so, describe: One tank for fresh water, one tank for returns *[Signature]*

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

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

Additives to be used in drilling medium? None

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Fluids will be placed into thickening pond WV-006505

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

-Landfill or offsite name/permit number? WVDEP SMA - O-0136-83

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.

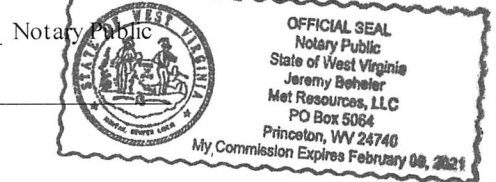
Company Official Signature *[Signature]*

Company Official (Typed Name) Derrick Kegley

Company Official Title Land Agent

Subscribed and sworn before me this 23<sup>rd</sup> day of September, 20 19

*[Signature]*  
My commission expires February 09, 2021





Proposed Revegetation Treatment: Acres Disturbed 0.5 Prevegetation pH 5.0

Lime 1 Tons/acre or to correct to pH 6.0

Fertilizer type 16-27-14

Fertilizer amount 450 lbs/acre

Mulch .75 Tons/acre

**Seed Mixtures**

**Temporary**

**Permanent**

Seed Type lbs/acre

Seed Type lbs/acre

Orchard Grass 20 lbs/ac.

Alsike Clover 3 lbs./ac

Weeping Lovegrass 3 lbs/ac

Annual Rye Grass 8 lbs/ac

Medium Red Clover 10 lbs/ac

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: 

Date: 9/26/19

Field Reviewed? ( *a* ) Yes ( ) No

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**SEP 27 2019**

**WV Department of  
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**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
GROUNDWATER PROTECTION PLAN**

Operator Name: \_\_\_\_\_

Watershed (HUC 10): \_\_\_\_\_ Quad: \_\_\_\_\_

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.

[Empty response box for question 1]

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

[Empty response box for question 2]

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

[Empty response box for question 3]

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

[Empty response box for question 4]

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

[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.

Cornerstone will not use any waste materials generated from the plugging of well for deicing or fill materials 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.

[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]

Signature: *[Handwritten Signature]*

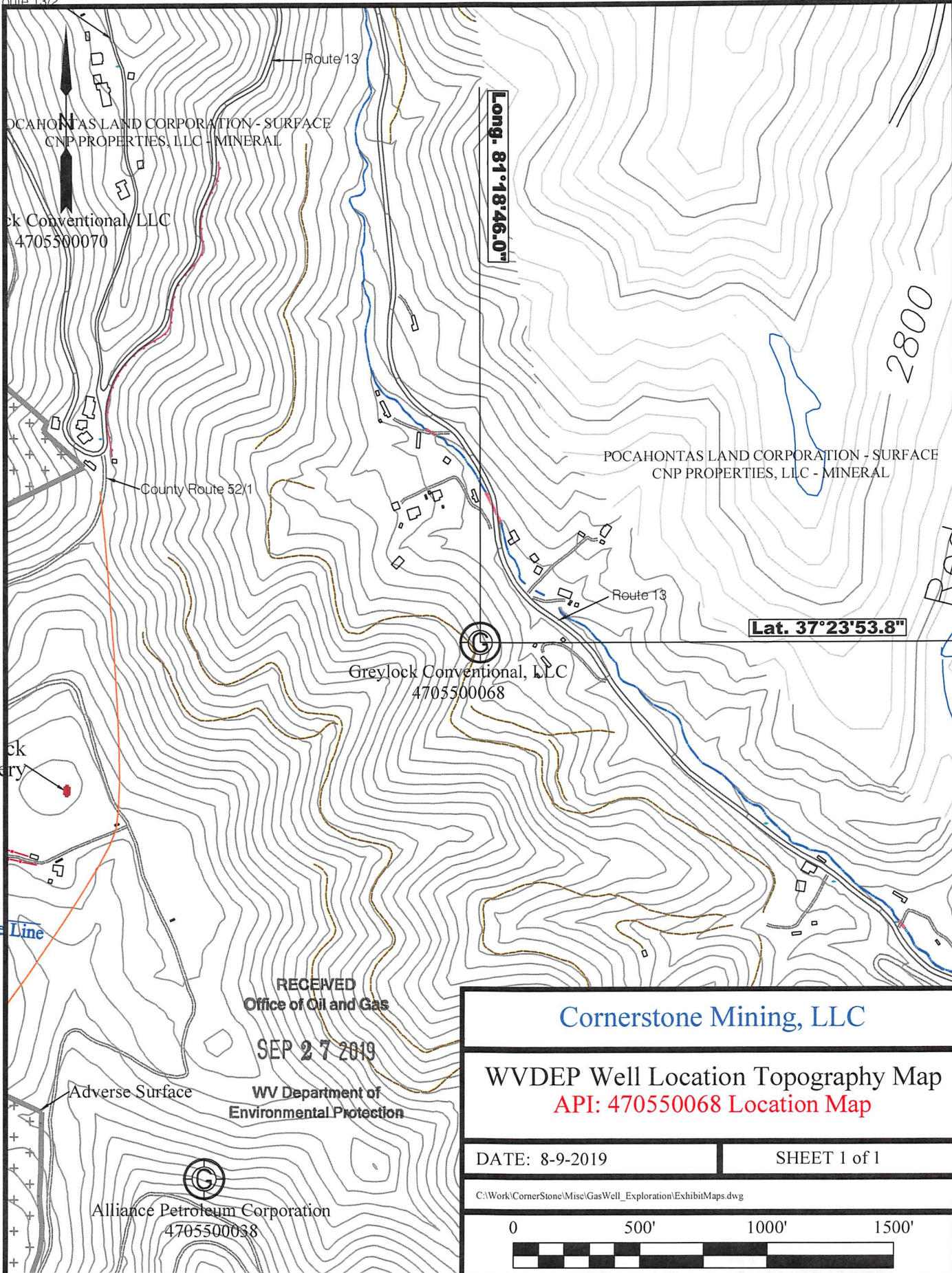
Date: 9-23-19

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oute 13/2



Long. 81°18'46.0"

Lat. 37°23'53.8"

2800

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 Environmental Protection

<b>Cornerstone Mining, LLC</b>	
<b>WVDEP Well Location Topography Map</b> <b>API: 470550068 Location Map</b>	
DATE: 8-9-2019	SHEET 1 of 1
C:\Work\CornerStone\Misc\GasWell_Exploration\ExhibitMaps.dwg	

*Handwritten signature*



WW-7  
8-30-06



West Virginia Department of Environmental Protection  
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 4705500068 WELL NO.: D-5

FARM NAME: Pocahontas Land Corp

RESPONSIBLE PARTY NAME: Cornerstone Mining, LLC

COUNTY: Mercer DISTRICT: Rock

QUADRANGLE: Crumpler Quad

SURFACE OWNER: Pocahontas Land Corp

ROYALTY OWNER: Pardee Minerals

UTM GPS NORTHING: 4139102.001

UTM GPS EASTING: 472316.053 GPS ELEVATION: ±2700

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 NA : Post Processed Differential NA  
Real-Time Differential NA  
Mapping Grade GPS X : Post Processed Differential NA  
Real-Time Differential ±17'

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4. 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]  
Signature

Land Agent  
Title

08/26/2019  
Date