



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

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

CORNERSTONE MINING, LLC
200 CAPITOL STREET

CHARLESTON , WV 25301

Re: Permit approval for D-4
47-055-00070-00-00

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-4
Farm Name: POCA LAND CORP.
U.S. WELL NUMBER: 47-055-00070-00-00
Vertical Plugging
Date Issued: 11/1/2019

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. 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 - 00070

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 2825 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 ~~top of 4-1/2" casing~~ ^{PSTD ~ 490' TO} cut to 100' above casing cut. Set gel plug up to 2,962'. Set cement plug from 2,962' to ~~2,62'~~ ^{2,762'}. Set gel plug up to (100' below 8-5/8" casing). Set cement plug from 850' to 650'. If possible, cut and remove 8-5/8" casing (based upon bond log). Set cement plug from 650' to surface. Erect monument.

Notification must be given to the district oil and gas inspector 24 hours before ^{RECEIVED} work can commence. Office of Oil and Gas

OCT 31 2019

Work order approved by inspector GARY KENNEDY _{gwm}
BY PHONE

Date _____ WV Department of Environmental Protection



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Crumpler
Permit No. Mer-70

Rotary Oil _____
Cable _____ Gas
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind)

Company Texas International Petroleum Corp
Address Charleston, West Virginia
Farm Pocahontas Land Acres 660
Location (waters) West Fork of Crane Creek
Well No. D-4 Elev 2862.69'
District Rock County Mercer
The surface of tract is owned in fee by
Pocahontas Land Corporation
Address Bluefield, West Virginia
Mineral rights are owned by Pocahontas Land
Corp. Address Bluefield, WV
Drilling Commenced 12/18/77
Drilling Completed 1/4/78
Initial open flow N/M cu. ft. _____ bbls.
Final production 660M cu. ft. per day _____ bbls.
Well open 6 hrs. before test 850 RP.

Casing and Tubing	Used in Drilling	Left in Well
Size 20-16		
Cond. 16"	24"	24"
13-10"		
9 5/8		
8 5/8	751'	751'
7		
5 1/2		
4 1/2	4831'	4831'
3		
2		
Liners Used		

Cement fill up
Cu. ft. (Sks.)
Conductor
Cement to surface w/315 sacks.
Cemented w/10 sacks. *~100 sacks*

Attach copy of cementing record.

Well treatment details:
Spotted 500 gallons 15% HCl. Perforated 4730 - 40' 2 SPF. 21 Shots. Broke Weir with 2000 PSI. Fraced with 800 barrels galled water, 15,000# 80/100 sand and 55,000# 20/40 sand. AIP 1200 PSI, AIR 43 BPM, ISIP Vacuum.

Coal was encountered at 37', 97', 485' Feet 36", 36", 60" Inches
Fresh water 41' Feet Salt Water _____ Feet
Producing Sand Weir Depth 4704'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Red Clay			0	15		1" Stream of water @ 41'
Sand			15	37		
Coal			37	40		
Sand			40	47		
Sand			47	82		
Sand			82	97		
Coal			97	100		
Sand			100	160		
Sand			160	186		
Sand			186	361		
Sand			361	485		
Coal			485	490		
Sand			490	563		
Sand & Shale			563	770		
Sandy Shale			770	938		
Red Rock			938	950		
Sand & Shale			950	990		
Red Rock			990	1015		
Sand & Shale			1015	1064		
Sandy Shale			1064	1096		
Sand			1096	1106		
Sand & Shale			1106	1429		
Ravencliff Sand			1429	1570		
Shale			1570	1602		

(over)

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Sand			1602	1762		
Avis Lime			1762	1801		
Shale			1801	1837		
Sand & Shale			1837	1877		
Red Rock			1877	1945		
Shale			1945	2218		
Sandy Shale			2218	2315		
Sand			2315	2319		
Red Rock & Shale			2319	2424		
Sand			2424	2434		
Shale & Red Rock			2434	2464		
Sand			2464	2540		
Sand & Shale			2540	2576		
Sand			2576	2605		
Shale			2605	2670		
Maxton Sand			2670	2720		
Sand & Shale			2720	3017		
Sand			3017	3052		
Sand & Shale			3052	3208		
Lime			3208	3344		
Sand & Shale			3344	3350		
Lime			3350	3535		
Big Lime			3535	4421		
Shale			4421	4654		
Weir Sand			4654	4705		
Shale			4705	4860	T.D.	

Date March 7, 1978

APPROVED Texas International Petroleum
James M. Blanton (h)
 By James Blanton
 Division Manager

WW-4A
Revised 6-07

RECEIVED
Office of Oil and Gas

SEP 27 2019

WV Department of
Environmental Protection

1) Date: August 26, 2019
2) Operator's Well Number
494521673
3) API Well No.: 47 - 055 - 00070

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

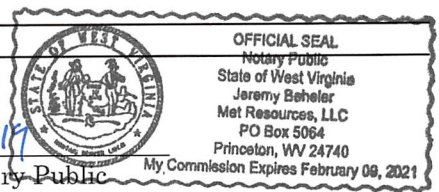
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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
 Its: Land Agent
 Address 150 Courthouse Road, Suite 302
 Princeton, WV 24740
 Telephone 304.320.5576



Subscribed and sworn before me this 4th day of September 2019
Jeremy Beheler
 My Commission Expires February 08, 2021

Notary Public

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.

WW-4B

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Office of Oil and Gas

SEP 27 2019

WV Department of
Environmental Protection

API No. 4705500070
Farm Name _____
Well No. D-4

**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 then 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: CNP PROPERTIES, LLC
[Signature]
Its MANAGER

WW-9
(5/16)

API Number 47 - 055 - 00070
Operator's Well No. _____

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

Office of Oil and Gas _____ Land Application (if selected provide a completed form WW-9-GPP)

_____ Underground Injection (UIC Permit Number _____)

SEP 27 2019 _____ Reuse (at API Number _____)

_____ Off Site Disposal (Supply form WW-9 for disposal location)

WV Department of Environmental Protection _____ 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 0065005

-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

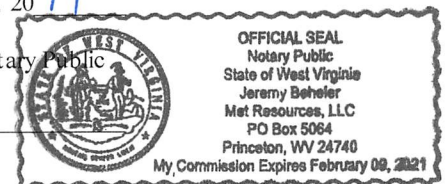
Company Official Title Land Agent

Subscribed and sworn before me this 23rd day of September, 20 19

[Signature]

Notary Public

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: *[Signature]*
Comments: _____

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WV Department of
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Title: *Inspector* Date: *9/26/19*

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

N/A

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.

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[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]

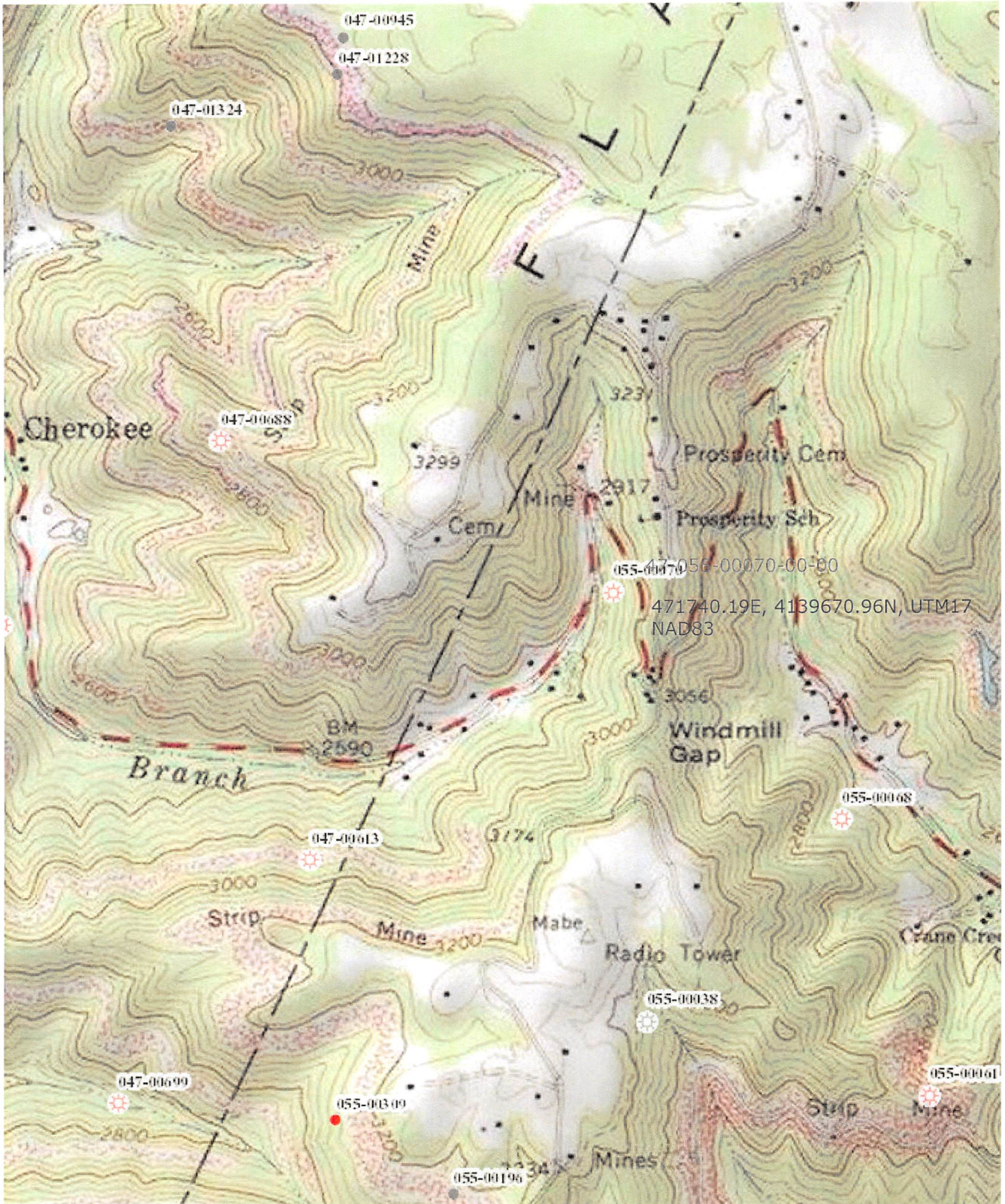
Signature: *[Handwritten Signature]*

Date: 9-23-19

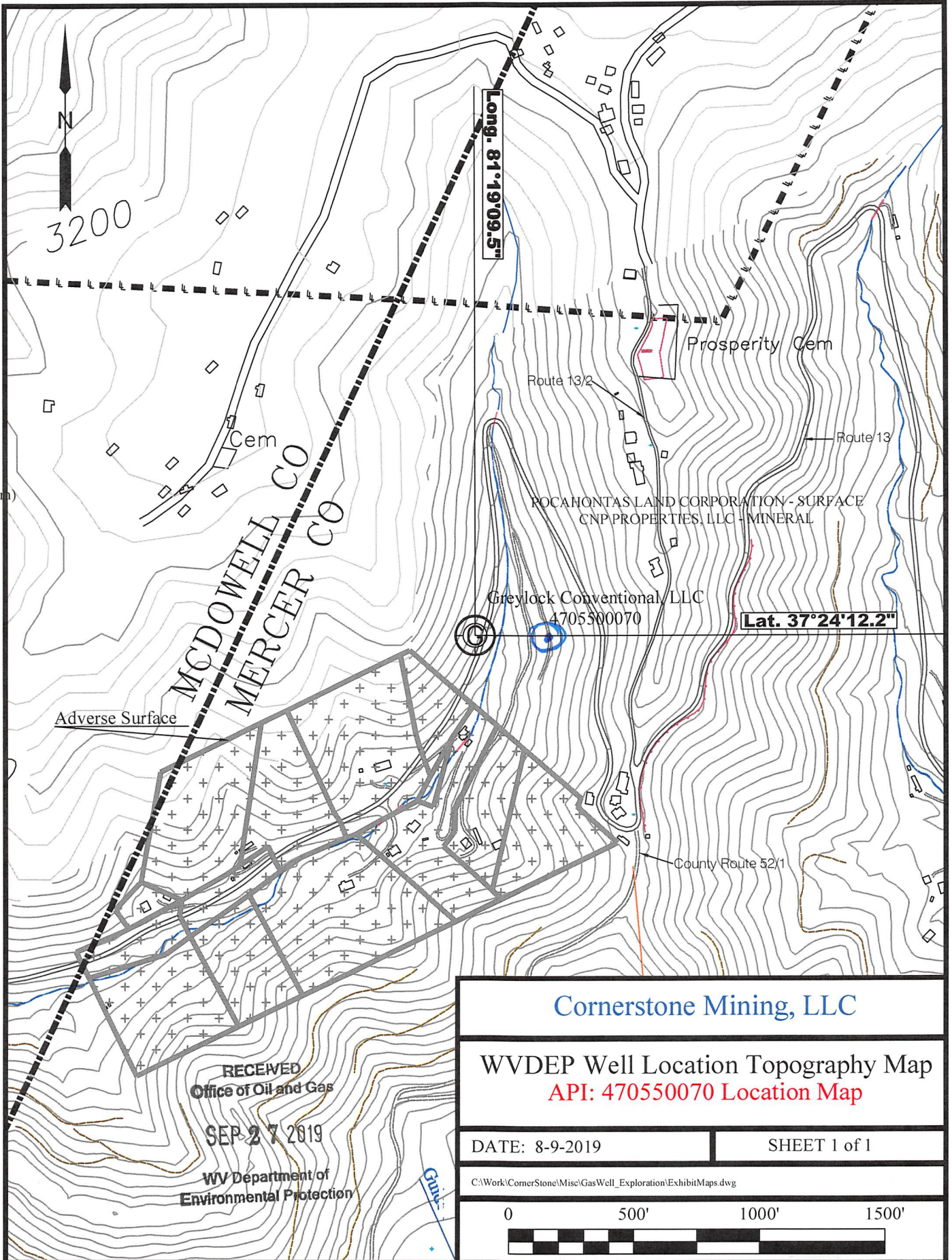
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WV Department of
Environmental Protection







Cornerstone Mining, LLC

WVDEP Well Location Topography Map
API: 470550070 Location Map

DATE: 8-9-2019

SHEET 1 of 1

C:\Work\CornerStone\Misc\GasWell_Exploration\ExhibitMaps.dwg

0 500' 1000' 1500'



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Environmental Protection

A handwritten signature in blue ink, likely of the surveyor or engineer responsible for the map.

WW-7
8-30-06West Virginia Department of Environmental Protection
Office of Oil and Gas**WELL LOCATION FORM: GPS**

API: 4705500070 WELL NO.: D-4
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: 4139670.969
UTM GPS EASTING: 471740.197 GPS ELEVATION: ±2825

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:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. 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 ±14'

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Environmental Protection

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

Land Agent

Title

08/26/2019

Date