



**west virginia** department of environmental protection

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

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.dep.wv.gov

December 12, 2014

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-3901218, issued to CABOT OIL & GAS CORPORATION, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

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. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.



James Martin  
Chief

Operator's Well No: 17-714  
Farm Name: SILER COAL LAND CO.  
**API Well Number: 47-3901218**  
**Permit Type: Plugging**  
Date Issued: 12/12/2014

## 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 November 3, 2014  
2) Operator's  
Well No. Siler Coal #17  
3) API Well No. 47-039 -01218

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 699.13' Watershed Big Coal River  
District Washington County Kanawha Quadrangle Julian 411

6) Well Operator Cabot Oil & Gas Corporation 7) Designated Agent Whitney Johnson  
Address Five Penn Center West, Ste. 401 Address P.O. Box 450  
Pittsburgh, PA 15276 Glasgow, WV 25086

8) Oil and Gas Inspector to be notified Name Terry Urban  
Address P.O. Box 1207  
Clendenin, WV 25045  
9) Plugging Contractor Name Shreve's Well Service  
Address 3473 Triplett Road  
Spencer, WV 25275

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

*OK gaw*

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

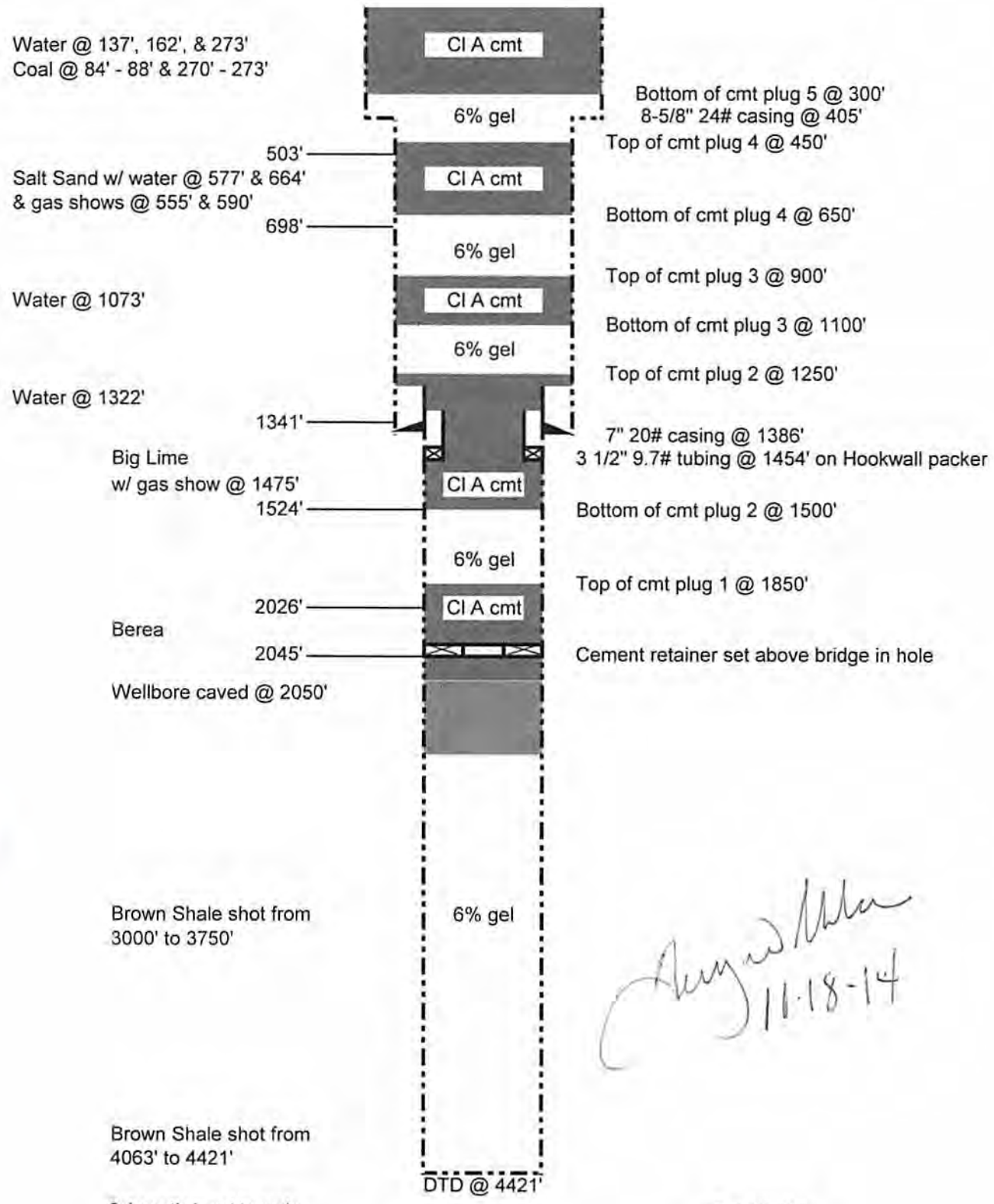
RECEIVED  
Office of Oil and Gas  
NOV 06 2014  
WV Department of  
Environmental Protection

Work order approved by inspector \_\_\_\_\_

12/12/14

3901218P

### Siler Coal #17 API 47-039-01218 PROPOSED CONFIGURATION



Schematic is not to scale

T. Ott 09/05/14

*Handwritten signature and date: 11-18-14*

**SILER COAL #17**  
**API # 47 - 039 - 01218**  
**PLUGGING PROCEDURE**

**Current Configuration**

DTD @ 4421'

8-5/8" 24# casing @ 405'

7" 20# casing @ 1386'

3-1/2" 9.7# tubing @ 1454' with Hookwall packer set @ 1440' – 1443'

Water @ 137', 162', 273', 1073', & 1322'

Coal @ 84' – 88', & 270' – 273'

Salt Sand @ 503' – 698' w/ water @ 577' & 664' & gas shows @ 555' & 590'

Big Lime @ 1341' – 1524' w/ gas show @ 1475'

Berea @ 2026' to 2045' w/ no show

Brown Shale shot from 3000' – 3750' & 4063' – 4421'

**PROCEDURE**

1. Contact Danville District Office a minimum of 48 hours prior to starting work
2. Contact state inspector a minimum of 24 hours prior to starting work.
3. Lay 2" line from wellhead to pit/tank and stake down securely. Vent 3" x 6-5/8" annulus.
4. Run slick line to determine well TD.
5. Bail hole to bridge @ 2050'.
6. Load hole with 6% gel. Volume may be 40 bbls to 100 bbls.
7. MIRU service rig and blow down well. Have vacuum truck available to catch any fluids circulated from well.
8. Unpack wellhead.
9. TIH with cement retainer on 2-3/8" work string and set retainer @ TD found by slick line.
10. MIRU Cementing Company.
11. Pump 80 sacks of Class A cement for 200' cement plug below retainer and 200' above retainer.
12. Displace with 7 bbls of 6% Gel.
13. TOOH with work string. Let cement plug set for a minimum of eight hours.
14. Pull 3-1/2" tubing. If unable to pull, run freepoint on tubing, cut tubing above freepoint, and POOH with tubing.
15. Pull 7" casing. If unable to pull, run freepoint on casing, cut casing above freepoint, and POOH with casing.
16. TIH with 2-3/8" work string to 1500'.
17. Pump 60 sacks of Class A cement for cement plug 2 from 1500' to 1250'. Cement must cover the tops of the 3-1/2" tubing and the 7" casing.
18. Displace with 4 ½ bbls of 6% Gel.
19. Pull work string to 1100' and pump 60 sks of Class A cement for plug 3 from 1100' to 900'.
20. Displace with 3 ½ bbls of 6% Gel.
21. Pull work string to 650' and pump 60 sks of Class A cement for plug 4 from 650' to 450'.
22. Displace with 1 ½ bbls of 6% Gel.
23. TOOH with work string.
24. Pull 8-5/8" casing string.
25. TIH with 2-3/8" work string to 300' and pump 200 sacks of Class A cement for cement plug 5 from 300' to surface.
26. TOOH with work string and lay down.
27. RDMO Cement company
28. Erect Monument according to Law.
29. RDMO.

*Angie White*  
11-18-14

3901218P

WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
W E L L R E C O R D

Permit No. Kan 1218		Gas Well
Madison Quad.		CASING & TUBING
Company	The Owens, Libbey-Owens Gas Dept.	
Address	P.O. Box 2111, Charleston 28, W.Va.	8 5/8" 405 405
Farm	Silor Coal Land Co. #17 A 4,424	7 1386 1386
Location	Big Coal River	3 1/2 1454 1454
Well No.	714 Elev. 694.4	
District	Washington Kanawha County	O.W. Hook Well Pack
Surface	John Chandler, 4421 Washington Ave. Charleston, 4, W.Va.	S.D. Size 3 x 6 5/8 x 16
Mineral	(Coal) State of W.Va. (Oil & Gas) O.L.O. Gas Dept.	Depth 1440-1443
Commenced	Charleston, W.Va.	No perf. top
Completed	11-1-45	
Date shot	2-3-46	
Open Flow	2-5-46 Depth 4063 to 4421 with 3,600 lbs. detonite	
Volume	20/10ths in 1"	
Rock Pressure	35 MCF	
Fresh Water	335 lbs. 54 hrs.	
	137 5 bail hr.; 162 hole filling; 273 H.F.	
	577 Hole filling up; 644 Salty-stood 80'	
	1073' Salty 80'; 1322' standing at 80'	

Clay Lt	S	0	12	Sl. & Shells	Dk	M	3283	3302
Sand Lt	S	12	16	Shells	Dk	H	3302	3315
Slate Dk	S	16	43	Sl. & Shells	Gr	M	3315	3606
Sand Lt	M	43	84	Shale	Dk	S	3606	3677
Coal Bk	S	84	88	Shale	Br	S	3677	3731
Sand Lt	S	88	146	Sl. & Shells	Lt	S	3731	3777
Slate Dk	S	146	154	Sl. & Shells	Lt	M	3777	4044
Sand Wh	H	154	181	Slate	Lt	S	4044	4141
Slate Dk	S	181	231	Shale	Dk	S	4141	4179
Sand Lt	M	231	243	Brown Shale	Br	S	4179	4257
Sand Gr	S	256	270	Shale	Dk	S	4257	4292
Coal Bk	S	270	273	Shale & Shls	Br	S	4292	4327
Slate Dk	S	273	379	Slate & Shls.	Dk	S	4237	4358
Sand Gr	S	379	384	Slate	Dk	S	4358	4370
Slate Dk	S	384	503	Shale	Dk	S	4370	4418
Sand Lt	S	503	698	Corn. Limo			4418	4421
Slate Dk	S	698	725	TOTAL DEPTH				4421
Sand Wh	H	725	895	Gas 555' 58/10W 1 " 60 M				
Slate Dk	S	895	901	Test 583 3 1/2 M				
Sand Wh	H	901	956	Gas 590 44 M				
Slate Dk	S	956	963	Gas 1475 19 M				
Sand Wh	H	963	1002	Test 1493 6 M				
Slate Dk	S	1002	1013	Gas 1500 9 M				
Sand Wh	H	1013	1207	Test 2262 No gas				
Slate Dk	S	1207	1211	Gas 2299 1,386 C.F.				
Red Rock	S	1211	1216	Test 4141 424 C.F.				
Slate Dk	S	1216	1231	Gas 4179 624 C.F.				
Sl. Shells Wh	H	1231	1253	Shot 2nd time 2-6-46 with 7300# Detonite				
Sl. Shells Dk	S	1253	1307	from 3000' to 3750'				
Lime Gr	H	1307	1339	Test B.S. 27 M				
Slate Dk	H	1339	1341	1 hr. A.S. 198 M				
Big Lime Wh	H	1341	1524	Cleaned out from 3700 to 3785				
Injun Red	S	1524	1602					
Slate Dk	S	1602	1607					
Sl.-Shells Gr	M	1607	2020					
Shell Lt	H	2020	2026					
Borea Lt	H	2026	2045					
Sholl Lt	H	2045	2080					
Slate & Shells Lt	M	2080	2793					
Slate Lt	S	2793	2874					
Sl. & Shells Gr	M	2874	2900					
Slate Lt	S	2900	2971					
Sl. & Shells Gr	M	2971	3002					
Slate Lt	M	3002	3066					
Slate & Shls. Gr	M	3066	3087					
Slate Lt	S	3087	3155					
Sl. & Shells Lt	M	3115	3170					
Slate Lt	M	3170	3193					
Slate & Shells Lt	M	3193	3241					
Brown Shale	Br	S	3241					

RECEIVED  
Office of Oil and Gas  
NOV 08 2014  
WV Department of  
Environmental Protection

RECEIVED  
Office of Oil and Gas  
NOV 08 2014  
WV Department of  
Environmental Protection

12/12/14

4918  
699  
-3724

WW-4A  
Revised 6-07

1) Date: November 3, 2014  
2) Operator's Well Number  
Siler Coal #17  
3) API Well No.: 47 - 039 - 01218

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

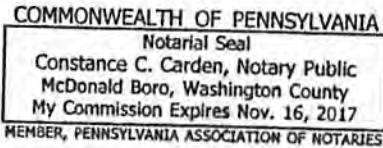
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Penn Virginia Operating Company, LLC</u>	Name <u>Coal River Mining, LLC</u> <u>Fort Creek Mining Co.</u>
Address <u>7 Sheridan Circle, Suite 400</u>	Address <u>P.O. Box 79</u> <u>500 Lee St., Suite 701</u>
<u>Kingsport, TN 37660</u>	<u>Alum Creek, WV 25003</u> <u>Charleston, WV 25301</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Penn Virginia Operating Company, LLC</u>
	Address <u>7 Sheridan Circle, Suite 400</u>
	<u>Kingsport, TN 37660</u>
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Terry Urban</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 1207</u>	Name <u>Pen Land Company</u>
<u>Clendenin, WV 25045</u>	Address <u>5110 Maryland Way, Suite 300</u>
Telephone <u>(304) 549-5915</u>	<u>Brentwood, TN 37027</u>

**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 Cabot Oil & Gas Corporation  
 By: Kenneth L. Marcum  
 Its: Regulatory Supervisor  
 Address Five Penn Center West, Ste. 401  
Pittsburgh, PA 15276  
 Telephone (412) 249-3850

RECEIVED  
 Office of Oil and Gas  
 NOV 06 2014  
 Notary Public

Subscribed and sworn before me this 3rd day of November, 2014  
Constance C. Carden  
 My Commission Expires November 16, 2017

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).

3901218P

7013 3020 0001 0841 7319

**U.S. Postal Service™**  
**CERTIFIED MAIL™ RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark Here: NOV - 5 2014

Sent To: **Fort Creek Mining Co.**  
 500 Lee St., Suite 701  
 Charleston, WV 25301  
 Siler Coal #17 P&A

PS Form 3800, August 2008

7013 3020 0001 0841 7302

**U.S. Postal Service™**  
**CERTIFIED MAIL™ RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark Here: NOV - 5 2014

Sent To: **Pen Land Company**  
 5110 Maryland Way, Suite 300  
 Brentwood, TN 37027  
 Siler Coal #17 P&A

PS Form 3800, August 2008

7013 3020 0001 0841 7333

**U.S. Postal Service™**  
**CERTIFIED MAIL™ RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark Here: NOV - 5 2014

Sent To: **Penn Virginia Operating Company, LLC**  
 7 Sheridan Circle, Suite 400  
 Kingsport, TN 37660  
 Siler #17

PS Form 3800, August 2008

7013 3020 0001 0841 7326

**U.S. Postal Service™**  
**CERTIFIED MAIL™ RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark Here: NOV - 5 2014

Sent To: **Coal River Mining, LLC**  
 P.O. Box 79  
 Alum Creek, WV 25003  
 Siler Coal #17 P&A

PS Form 3800, August 2008

7013 3020 0001 0841 7340

**U.S. Postal Service™**  
**CERTIFIED MAIL™ RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark Here: NOV - 5 2014

Sent To: **Terry Urban**  
 P.O. Box 1207  
 Clendenin, WV 25045  
 W. Bowers #15 P&A

PS Form 3800, August 2008

RECEIVED  
 Office of Oil and Gas  
 NOV 06 2014  
 WV Department of  
 Environmental Protection

12/12/14



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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM  
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Cabot Oil & Gas Corporation OP Code \_\_\_\_\_

Watershed Big Coal River Quadrangle Julian

Elevation 699' County Kanawha District Washington

Description of anticipated Pit Waste: None - no cuttings produced during plugging operation

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

Will a synthetic liner be used in the pit? N/A If so, what mil.? \_\_\_\_\_

Proposed Disposal Method For Treated Pit Wastes:  
 \_\_\_\_\_ Land Application  
 \_\_\_\_\_ Underground Injection ( UIC Permit Number \_\_\_\_\_ )  
 \_\_\_\_\_ Reuse (at API Number \_\_\_\_\_ )  
 \_\_\_\_\_ Off Site Disposal (Supply form WW-9 for disposal location)  
 \_\_\_\_\_ Other (Explain \_\_\_\_\_ )

*ANK WELL EFFLUENT MUST  
BE CONTAINED IN TANKS &  
DISPOSED OF PROPERLY. g w g*

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. \_\_\_\_\_  
 -If oil based, what type? Synthetic, petroleum, etc. \_\_\_\_\_

Additives to be used? \_\_\_\_\_

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. No cuttings produced during plugging operation

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

-Landfill or offsite name/permit number? \_\_\_\_\_

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West-Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *Kenneth L. Marcum*

Company Official (Typed Name) Kenneth L. Marcum

Company Official Title Regulatory Supervisor

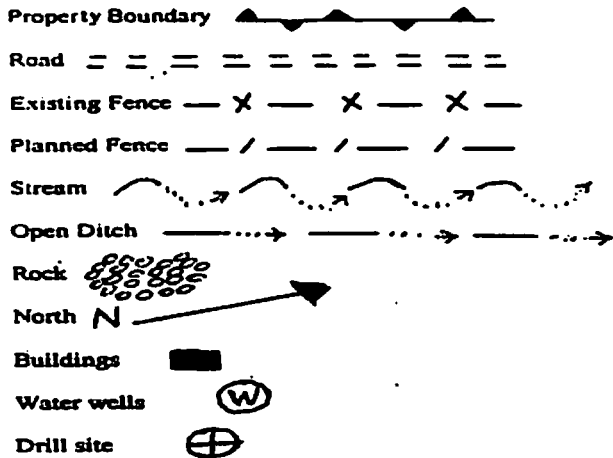
Subscribed and sworn before me this 3rd day of November, 2014

*Constance C. Carden* Notary Public

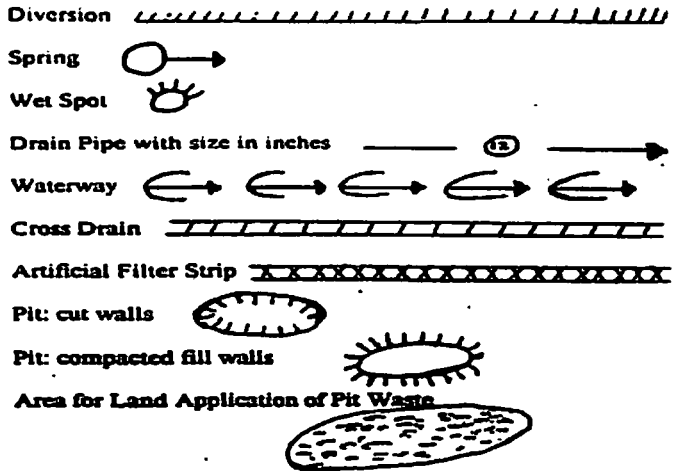
My commission expires November 16, 2017

COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Constance C. Carden, Notary Public  
McDonald Boro, Washington County  
My Commission Expires Nov. 16, 2017  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

12/12/14



**LEGEND**



Proposed Revegetation Treatment: Acres Disturbed 2.0 Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

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

Mulch Pulp Fiber at 1000 to 1500 Tons/acre

**Seed Mixtures**

Area I	
Seed Type	lbs/acre
Grain Rye - 100	Red Clover - 5 Fescue - 40
Annual Rye - 20	White Clover - 5
Perennial Rye - 10	Alta Sweet Clover - 5
Yellow Clover - 5	Birdsfoot Trefoil - 10

Area II	
Seed Type	lbs/acre
Grain Rye - 100	Red Clover - 5 Fescue - 40
Annual Rye - 20	White Clover - 5
Perennial Rye - 1	Alta Sweet Clover - 5
Yellow Clover - 5	Birdsfoot Trefoil - 10

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: \_\_\_\_\_

Comments: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Field Reviewed? ( ) Yes ( ) No

**GENERAL NOTES:**

THIS DRAWING REPRESENTS A SCHEMATIC REPRESENTATION OF THE PROPOSED WELL SITE AND ACCESS ROAD. PROPOSED STRUCTURES SUCH AS THE DRILLING PIT, ROADWAY, CULVERTS, SEDIMENT BARRIERS, ETC. ARE SHOWN IN THEIR APPROXIMATE PREPLANNING CONFIGURATION. GIVEN UNFORESEEN CIRCUMSTANCES, THE AS-BUILT LOCATION OF THESE STRUCTURES MAY VARY SLIGHTLY FROM THE LOCATION SHOWN ON THE ATTACHED DRAWINGS.

ALL ROADS SHOWN THEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH GUIDELINES AND REQUIREMENTS OF WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL MANUAL.

ALL CULVERTS SHOWN ON THIS DRAWING ARE PROPOSED AND WILL BE A MINIMUM OF 15" IN DIAMETER UNLESS OTHERWISE NOTED.

DITCH LINES AND CULVERTS WILL BE INSTALLED WHENEVER PRACTICAL. HOWEVER PORTIONS OF THE EXISTING/PROPOSED ROADS WHICH ARE LOCATED IN SOLID ROCK SHALL NOT REQUIRE DITCHES OR CROSS DRAINS, UNLESS OTHERWISE WARRANTED BY FIELD CIRCUMSTANCES.

SUPPLEMENTAL DRAINAGE AND/OR SEDIMENT CONTROL STRUCTURES MEASURES IN ADDITION TO THOSE SHOWN ON THE ATTACHED DRAWINGS WILL BE INSTALLED WHEN AND WHERE DEEMED NECESSARY. SUCH ADDITIONAL MEASURES MAY CONSIST OF EITHER STRAW BALES, SILT FENCES OR OTHER MEASURES OUTLINED IN THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL FIELD MANUAL.

SEDIMENT BASINS (TRAPS) WILL BE CONSTRUCTED AT ALL CULVERTS AND CROSS DRAINS INLETS AS REQUIRED IN THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL MANUAL. FIELD CONDITIONS SUCH AS 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.

A SEDIMENT BARRIERS OF EITHER BRUSH, STRAW BALES, FILTER FENCE, ETC. WILL BE INSTALLED AND MAINTAINED BELOW THE OUT FALL OF ALL PROPOSED CULVERTS AND AT ALL OTHER STORM WATER DRAINAGE POINTS FROM EITHER THE ROADWAY OR THE LOCATION.

ALL NECESSARY TIMBER OR BRUSH WILL BE REMOVED FROM ROUTE OF THE ROADWAY AND LOCATION BY CLEANING AND GRUBBING ACTIVITIES. ANY SALVAGEABLE TIMBER WILL BE CUT AND STACKED TO THE SIDE OF THE ROADWAY OR REMOVED TO A STOCKPILE AREA. THE REMAINING TIMBER OR BRUSH WILL BE CUTUP AND WIND ROWED BELOW THE OUTSLOPE OF THE CONSTRUCTION AREAS TO BE UTILIZED AS A SEDIMENT BARRIER.

SEPARATE PERMITS WILL BE OBTAINED FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION FOR ALL POINTS OF INGRESS AND EGRESS FROM COUNTY AND STATE ROADS. THESE INGRESS AND EGRESS POINTS WILL BE MAINTAINED IN ACCORDANCE WITH CURRENT WEST VIRGINIA DEPARTMENT OF TRANSPORTATION REGULATIONS. A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF 8" OF CRUSHED STONE WILL BE CONSTRUCTED FOR A MINIMUM DISTANCE OF 50' FROM THE INGRESS AND EGRESS POINTS OF ALL PUBLIC ROADWAYS IN ACCORDANCE WITH CURRENT WEST VIRGINIA DEPARTMENT OF TRANSPORTATION REGULATIONS.

ALL CULVERTS SHOWN ON THE ATTACHED DRAWINGS ARE TO BE CONSIDERED PERMANENT AND WILL REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION ACTIVITIES UNLESS NOTED OTHERWISE. A STABILIZED OUTLET CONTROL DEVICE SUCH AS RIP RAP, NATURAL STONE, BRUSH, ETC. WILL BE INSTALLED BELOW THE OUT FALL OF ANY ROADWAY CULVERT(S) WHICH ARE NOT LOCATED IN A STREAM OR CREEK. STONE WILL BE PLACED ABOVE ALL CULVERTS.

PERMANENT CROSS DRAINS OR WATER BARS WILL BE INSTALLED AS AN INTEGRAL PART OF THE RECLAMATION PROCESS AND SHALL BE SPACED IN ACCORDANCE WITH AS-BUILT ROADWAY SLOPES AND TABLE 11-4 OF THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL FIELD MANUAL.

TEMPORARY SEEDING AND MULCHING WILL BE UTILIZED TO PROVIDE A VEGETATIVE COVER ON ALL DISTURBED AREAS I.E. ROADWAYS, LOCATION, ROAD/LOCATION SLOPES AND ANY OTHER AREAS THAT ARE DISTURBED BY CONSTRUCTION ACTIVITIES.

THE LOCATION OF DRILLING PIT(S) MAY BE ADJUSTED TO THE MOST ENVIRONMENTAL SAFE SITE TO MEET THE REQUIREMENTS OF THE WVDEP.

**CONTRACTORS NOTE:**

IT IS THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND CONDITION OF ALL UNDERGROUND UTILITIES, SANITARY SEWERS, STORM SEWERS, ETC. PRIOR TO THE COMMENCEMENT OF ANY/OR CONSTRUCTION ACTIVITIES. DIG WITH C.A.R.E. CALL MISS UTILITY 1-800-245-4848.

ROAD GRADE (%)	DISTANCE (FT)
1	400
2	250
5	135
10	80
15	60
20	45

ROAD GRADE (%)	DISTANCE (FT)
2-5	500-300
6-10	300-200
11-15	200-100
16-20	100



1-800-245-4848

**DRAWING LEGEND**

- PROPOSED ROAD -----
- EXISTING ROAD -----
- STRAW BALES [Symbol]
- SILT FENCE [Symbol]
- BRUSH BARRIER [Symbol]
- TREE LINE [Symbol]
- ROCK RIP RAP [Symbol]
- CROSS DRAIN [Symbol]
- CULVERT [Symbol]
- DRILLING PIT [Symbol]
- ROAD DITCH [Symbol]
- GAS LINE [Symbol]
- FENCE LINE [Symbol]
- ROCK OUTCROP [Symbol]
- WATER WELL [Symbol]
- HOUSE/STRUCTURE [Symbol]
- UTILITY POLE [Symbol]
- SPRING [Symbol]
- WET SPOT [Symbol]
- PIT WASTE APP. AREA [Symbol]

**DRIVING DIRECTIONS FOR SILER COAL 17**

- 1.) FROM CHARLETON, WV, DRIVE SOUTH ON U.S. ROUTE 119 "CORRIDOR G" FOR 16 MILES± TO THE "MCCORKLE EXIT" WHICH IS SITUATED ON THE LEFT-HAND SIDE OF THE ROADWAY. AT THE MCCORKLE EXIT, TURN LEFT AND DRIVE WITH THE ROADWAY FOR 100 FEET± TO THE EXISTING MINE GATE/SECURITY OFFICE.
- 2.) FROM THE GATE, CONTINUE WITH THE EXISTING MINE ROAD ALONG THE RIVER AND UP THE HILL FOR 2.4 MILES± TO THE JUNCTION OF AN EXISTING LEASE ROAD SITUATED ON THE LEFT-HAND SIDE OF THE ROAD AT THE TOP OF THE HILL.
- 3.) TURN LEFT ONTO THE EXISTING LEASE ROAD AND CONTINUE WITH THE ROADWAY AROUND THE TOP OF THE HILL AND OUT THE RIDGE FOR 1.1 MILES± TO FORK IN THE EXISTING LEASE ROAD.
- 4.) AT THE FORK, BEAR TO THE RIGHT AND CONTINUE WITH EXISTING LEASE ROAD FOR 0.8 MILE± TO THE JUNCTION OF ANOTHER LEASE ROAD SITUATED ON THE RIGHT-HAND SIDE OF THE ROADWAY NEAR THE BOTTOM OF THE HILL.
- 5.) TURN RIGHT ONTO THE EXISTING LEASE ROAD AND CONTINUE WITH THE ROADWAY UP THE HILL AND OUT THE RIDGE FOR 1.2 MILES TO THE JUNCTION OF ANOTHER LEASE ROAD SITUATED ON THE LEFT-HAND SIDE OF THE ROAD NEAR EXISTING SILER COAL A-4.
- 6.) STAY RIGHT AND GO OUT THE RIDGE AND DOWN THE HILL FOR 0.9 MILE± TO THE JUNCTION OF ANOTHER LEASE ROAD THAT GOES TO SILER COAL A-23, ON THE LEFT-HAND SIDE OF THE ROAD.
- 7.) BEAR RIGHT AND FOLLOW THE EXISTING ROAD APPROXIMATELY 0.3 MILE± TO THE EXISTING LOCATION AS SHOWN ON THE "CONSTRUCTION AND RECLAMATION PLAN".

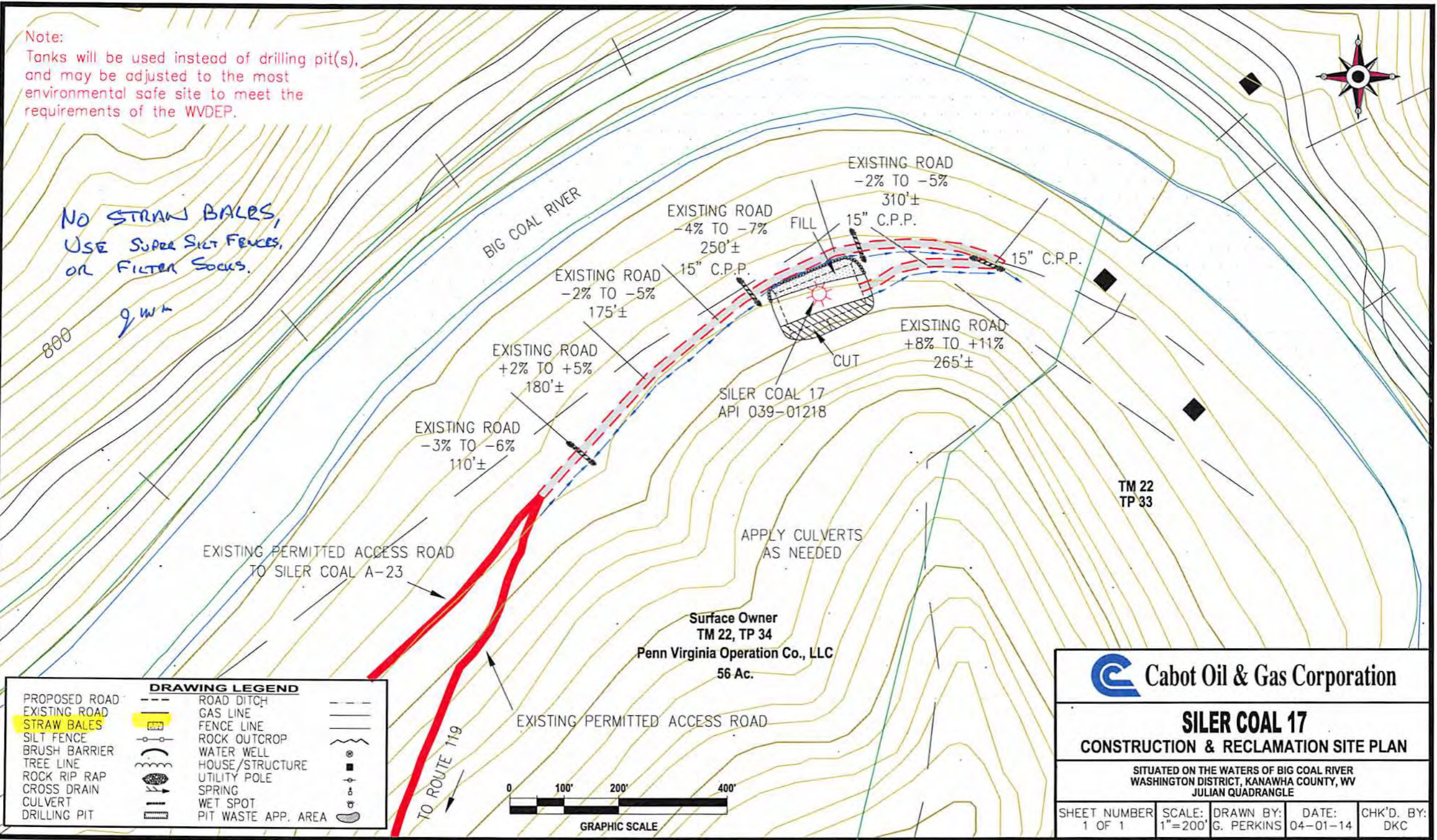
12/12/14

RECEIVED  
Office of Oil and Gas  
NOV 06 2014

3901218P

Note:  
Tanks will be used instead of drilling pit(s),  
and may be adjusted to the most  
environmental safe site to meet the  
requirements of the WVDEP.

No STRAW BALES,  
USE SUPER SILT FENCES,  
OR FILTER SOCKS.



SILER COAL 17  
API 039-01218

Surface Owner  
TM 22, TP 34  
Penn Virginia Operation Co., LLC  
56 Ac.

TM 22  
TP 33

DRAWING LEGEND		
PROPOSED ROAD		ROAD DITCH
EXISTING ROAD		GAS LINE
STRAW BALES		FENCE LINE
SILT FENCE		ROCK OUTCROP
BRUSH BARRIER		WATER WELL
TREE LINE		HOUSE/STRUCTURE
ROCK RIP RAP		UTILITY POLE
CROSS DRAIN		SPRING
CULVERT		WET SPOT
DRILLING PIT		PIT WASTE APP. AREA

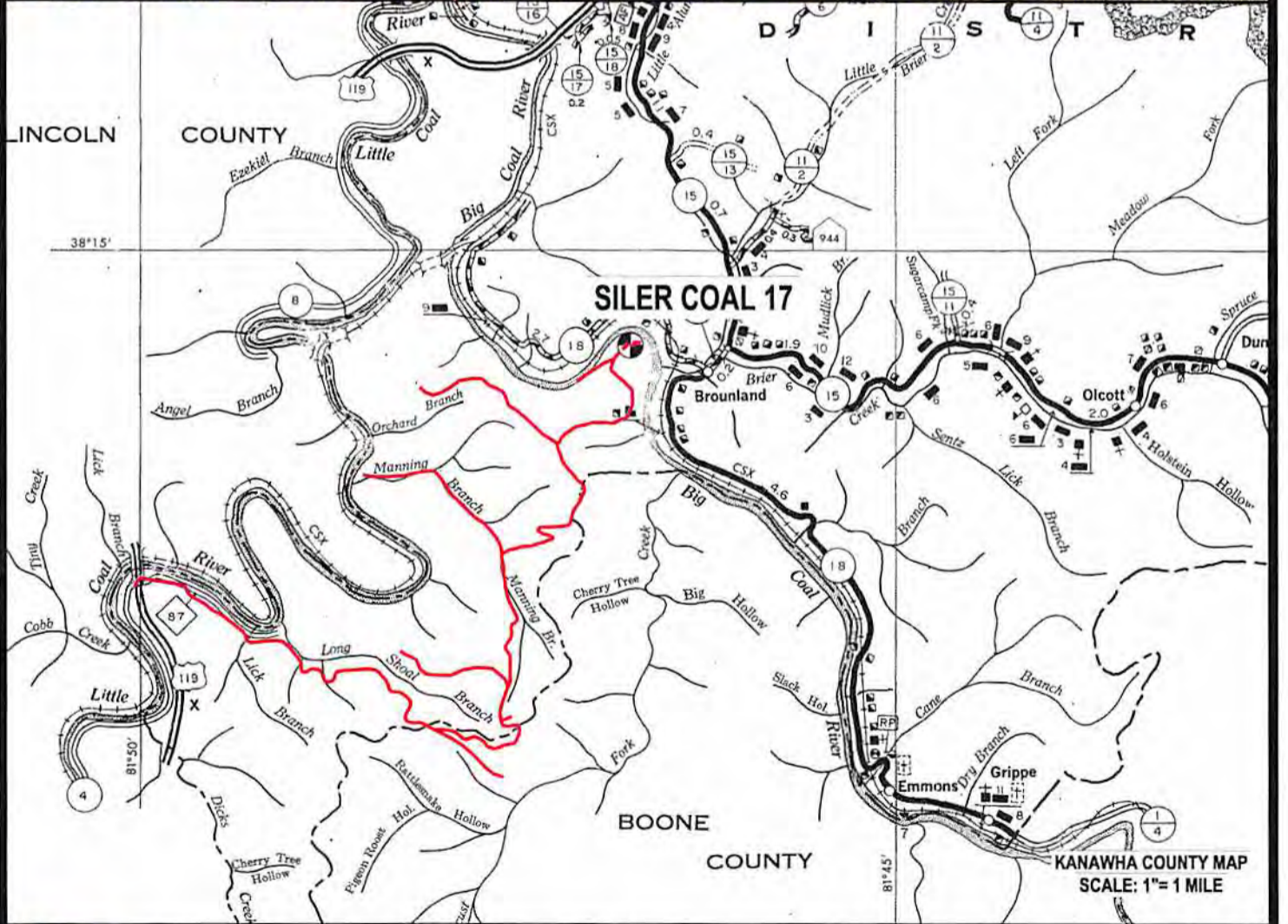
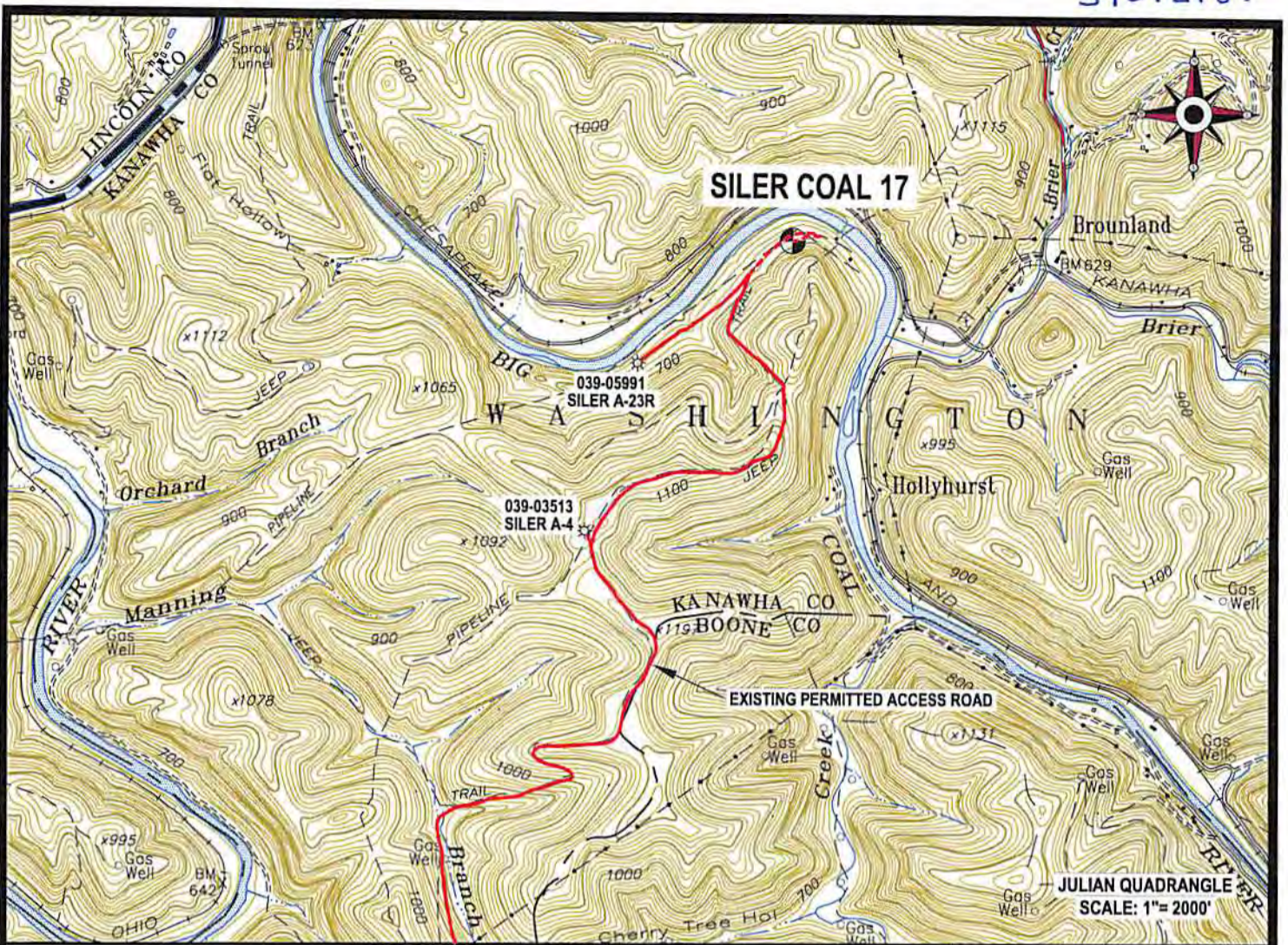


Cabot Oil & Gas Corporation

**SILER COAL 17**  
CONSTRUCTION & RECLAMATION SITE PLAN

SITUATED ON THE WATERS OF BIG COAL RIVER  
WASHINGTON DISTRICT, KANAWHA COUNTY, WV  
JULIAN QUADRANGLE

SHEET NUMBER 1 OF 1	SCALE: 1"=200'	DRAWN BY: G. PERKINS	DATE: 04-01-14	CHK'D. BY: DKC
------------------------	-------------------	-------------------------	-------------------	-------------------



 Cabot Oil & Gas Corporation

**SILER COAL 17**

LOCATION MAP

12/12/14



**CUNNINGHAM**

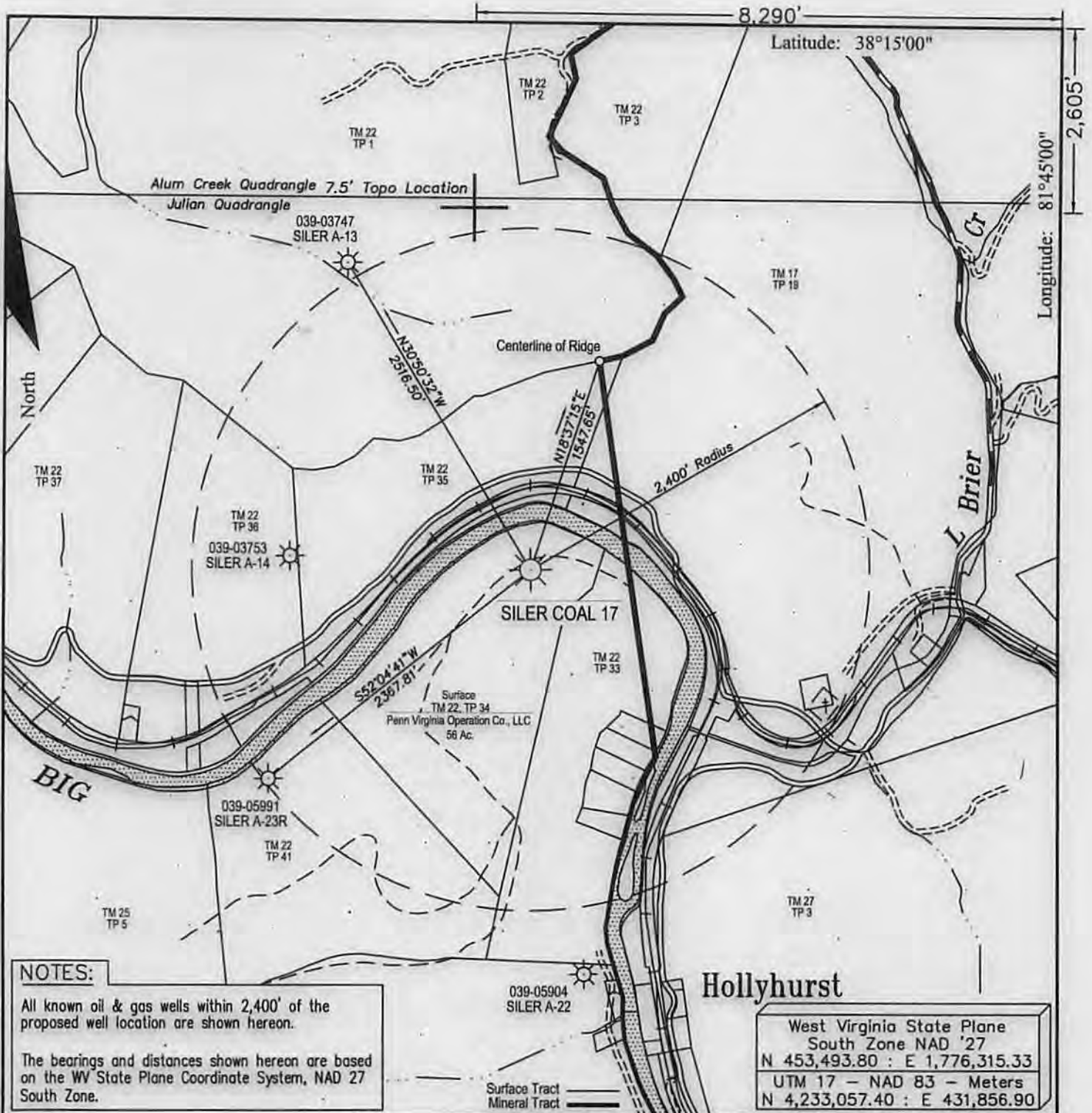
LAND SURVEYING & MAPPING SERVICES, LLC

- 5213 STEPHEN WAY •
- CROSS LANES, WEST VIRGINIA 25313 •
- VOICE (304) 561-4129 • FAX (304) 776-0703 •
- E-MAIL ADDRESS • DKCUNNINGHAM@SUDDENLINK.NET •

LOCATED ON THE WATERS OF  
BIG COAL RIVER  
WASHINGTON DISTRICT, KANAWHA COUNTY, WV  
JULIAN QUADRANGLE

PROJECT NO. CABOT	DWG. NO. SILER COAL 17 LOC
DATE: 04-01-14	SCALE: AS SHOWN
DRAWN BY: G. PERKINS	FILE: C:\PROJECT FOLDER\CABOT

WV Department of  
Environmental Protection



**NOTES:**

All known oil & gas wells within 2,400' of the proposed well location are shown hereon.

The bearings and distances shown hereon are based on the WV State Plane Coordinate System, NAD 27 South Zone.

FILE #:  
DRAWING #: Siler 17 ww6  
SCALE: 1" = 1000'  
MINIMUM DEGREE OF ACCURACY: 1 : 12,729  
PROVEN SOURCE OF ELEVATION: Global Positioning System (GPS)

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 ENVIRONMENTAL PROTECTION.

Signed: Don K. Cunningham  
R.P.E.: \_\_\_\_\_ L.L.S.: 701



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP  
OFFICE OF OIL & GAS  
601 57TH STREET  
CHARLESTON, WV 25304



DATE: April 1, 2014  
OPERATOR'S WELL #: Siler Coal 17  
API WELL #: 47 039 01218 P  
STATE COUNTY PERMIT

Well Type:  Oil  Waste Disposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow

WATERSHED: Big Coal River ELEVATION: 699.13'

COUNTY/DISTRICT: Kanawha / Washington QUADRANGLE: Julian

SURFACE OWNER: Penn Virginia Operation Co., LLC ACREAGE: 56

OIL & GAS ROYALTY OWNER: Cabot Oil & Gas, Corp. ACREAGE: 4,648

LEASE #: 47-4324 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON   
CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY): \_\_\_\_\_

TARGET FORMATION: \_\_\_\_\_ ESTIMATED DEPTH: \_\_\_\_\_

WELL OPERATOR Cabot Oil & Gas Corp. DESIGNATED AGENT Whitney Johnson  
Address Five Penn Center West, Suite 401 Address P.O. Box 450  
City Pittsburgh State PA Zip Code 15276 City Glasgow State WV Zip Code 25086



November 3, 2014

Chief  
West Virginia Division of Environmental Protection  
Office of Oil & Gas  
601 57<sup>th</sup> Street  
Charleston, WV 25304

RE: Siler Coal #17  
Washington District, Kanawha County, WV  
API # 47-039-01218  
Written Application to plug and abandon wellbore

Dear Chief:

In accordance with Article 22-6-23 of the Code of State Regulations regarding oil and gas operations, please find attached a formal application for the plug and abandonment of the subject well.

Notices of our intention to plug this wellbore have been sent to surface owner, coal owner, and coal operators associated with this well. Copies of the certified mail receipts are attached for your records.

If you have any questions or need additional information, I can be reached at 412-249-3850.

Sincerely,



Kenneth L. Marcum  
Regulatory Supervisor

RECEIVED  
Office of Oil and Gas  
NOV 06 2014  
WV Department of  
Environmental Protection