



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

Wednesday, July 24, 2019
WELL WORK PLUGGING PERMIT
Vertical Plugging

CORE APPALACHIA OPERATING LLC
414 SUMMERS STREET

CHARLESTON, WV 25301

Re: Permit approval for 8242
47-045-00544-00-00

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: 8242
Farm Name: TCO MIN TR 1
U.S. WELL NUMBER: 47-045-00544-00-00
Vertical Plugging
Date Issued: 7/24/2019

I

PERMIT CONDITIONS

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

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. This well is under a consent order and must be plugged under the terms of that agreement.

1) Date May 7, 2019
2) Operator's
Well No. 808242
3) API Well No. 47-045 - 00544

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 ___ or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1131.48' Watershed Buck Fork of Harts Creek
District Guyan County Logan Quadrangle Chapmanville

6) Well Operator Core Appalachia Operating, LLC 7) Designated Agent Jessica Greathouse
Address P.O. Box 6070 Address P.O. Box 6070
Charleston, WV 25362 Charleston, WV 25362

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Jeffrey L. Smith Name R & R Well Service
Address 5349 Karen Circle, Apartment # 2101 Address 42 Lynch Ridge
Cross Lane, WV 25313 Walton, WV 25286

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

SEE ATTACHED SHEET

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OK gwm

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

Work order approved by inspector _____ Date _____

PLUGGING PROGNOSIS

808242

West Virginia, Logan County

API # 47-045-00544

Casing Schedule

13" csg @ 21'

10" csg @ 555'

7" csg @ 1580'

3 1/2" csg @ 3488' w/ hook wall packer set @ 2305'

Completion

Shale Shot: 2705'- 3555'

Big Lime Acidized: 1558'- 1783'

Fresh Water: 180', 850'**Coal:** 147'- 151', 161'- 166', 922'- 925'**Gas Shows:** 1613', 3260**Oil Shows:** None Reported

1. Notify inspector, Jeffrey Smith 681-313-6743, 48 hrs. prior to commencing operations.
2. Check and record pressures.
3. Kill well as needed w/ 6% bentonite gel
4. Release packer, TOOH w/ 3 1/2" csg, and remove packer.
 - a. If unable to release packer and pull csg: Perforate 3" csg w/ 4 shots in 1 run at each plug below free point. TIH w/ 1 1/2" tbg and set below plugs.
 - b. Cut 3 1/2" csg at free point and set 100' C1A cement plug 50 in/out of cut.
5. TIH w/ tbg to 2705'. 100' C1A Cement Plug: **2605'- 2705'**
6. TOOH w/ tbg to 2605'. Pump 6% Bentonite: **1630'- 2605'**
7. TOOH w/ tbg to 1630'. 182' C1A Cement Plug: **1448' - 1630'**
8. TOOH w/ tbg. Free point and cut 7" csg. Set 100' C1A cement plug 50 in/out cut and any failed attempts. Do not omit any plugs below. If unable to pull csg across plug perforate w/ 4 shots in 1 run at each plug.
9. TIH w/ tbg to 1448'. Pump 6% Bentonite: **1134'- 1448'**
10. TOOH w/ tbg to 1134'. 153' C1A Cement Plug: **1034- 1134'**
11. TOOH w/ tbg to 1034'. Pump 6% Bentonite: **975'- 1034'**
12. TOOH w/ tbg to 975'. 175' C1A Cement Plug: **800'- 975'**
13. TOOH w/ tbg to 800'. 6% Bentonite: **605'- 800'**
14. TOOH w/ tbg to 605'. 198' C1A Cement Plug: **505'- 605'**
15. TOOH w/ tbg. Free point and cut 10" csg. Set 100' C1A cement plug 50 in/out cut and any failed attempts. Do not omit any plugs below. If unable to pull csg across plug perforate w/ 4 shots in 1 run at each plug.
16. TIH w/ tbg to 505'. 6% Bentonite: **230'- 505'**
17. TOOH w/ tbg to 230'. 230' C1A Cement Plug: **0-230'**
18. Erect monument with API# per WV-DEP specifications.
19. Reclaim location and road to WV-DEP specifications.

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 14

Quadrangle Holden

WELL RECORD

Permit No. LOG-544

Oil or Gas Well Gas
(KIND)

Company United Fuel Gas Company
Address P. O. Box 1273; Charleston, 25, W. Va.
Farm United Fuel Gas Co. Min. Tr. #1 Acres 23,469.33
Location (waters) Big Harts Creek
Well No. 8242 Elev. 1134.05
District Chapmansville County Logan
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by United Fuel Gas Co.
Address Charleston, W. Va.
Drilling commenced May 30, 1956
Drilling completed September 10, 1956
Date Shot 9-12-56 From 2711 To 3555'
With 5800# Galatin
Open Flow 40 /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch
Volume 299,000 Big Lime 32 M Cu. Ft.
Rock Pressure 395 Br. Shale 72267M hrs.
Oil 480 lbs. 72 hrs.
Fresh water 180 feet 850 feet
Salt water _____ feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			Hook Wall
13		21	Size of
10		555	7" x 3" x 16"
8 1/4			Depth set
7 5/8		1580	2305'
5 3/16			Perf. top
3 1/2		3488	Perf. bottom
2			Perf. top
Liners Used			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____

COAL WAS ENCOUNTERED AT 147 FEET 48 INCHES
161 FEET 60 INCHES 922 FEET 36 INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Surface			0	21	Water 180'		-3 bailers per hour
Blue Mud			21	40			
White Shale			40	80	Hole full water		850'
Black Slate			80	108			
Sand			108	147	Gas 1613'		4/10 W 2" 84 M
Coal			147	151			
Sand			151	161	Gas 3260'		12/10 W 1" 36 M
Coal			161	166			
Black Slate			166	182	Test before acidized		4/10 W 1" 21 M
Sand			182	240	Acidized 8-6-56 with		2000 gallons acid
White Slate			240	312	Test after tubed		9/10 W 1" 32 M
Sand			312	324			
Slate			324	403	Test before shot		12/10 W 1" 36 M
Sand			403	450	Shot 9-12-56 with		5800# Galatin from
Slate			450	500			2711-3555'
Sand			500	542	Test 1 hour after shot		12/10 Merc. 2"
Slate			542	605			539 M
Sand			605	695	Test 20 hours after shot		50/10 W 2" 298M
Slate			695	700	Test after tubed		40/10 W 2" 267 M
Sand			700	885			
Slate			885	922			
Coal			922	925	FINAL OPEN FLOW -		299 M - Big Lime 32M
Slate			925	939	72 Hr. R. P. 395# casing		Er. Shale 267M
Salt Sand			939	1035	72 Hr. R. P. 480# tubing		
Slate			1035	1088			
Black Shell			1088	1100	Shut in 9-18-56 in		3" tubing.
Salt Sand			1100	1147			
Slate			1147	1155			
Sand			1155	1188			
Lime Shell			1188	1193			
Red Rock			1193	1250			
Black Shell			1250	1270			
Slate & Shell			1270	1332			
Sand			1332	1380			
Shells			1380	1385			

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Formation	Color	Hard or Soft	Top / 4	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate			1385	1405			
Lime Shell			1405	1420			
Red Rock			1420	1425			
Slate			1425	1447			
Sand			1447	1495			
Black Shell			1495	1540			
Little Lime			1540	1558			
Big Lime			1558	1783			
Red Injun			1783	1812			
Gray Injun			1812	1880			
White Slate			1880	1886			
Slate & Shells			1886	1900			
Lime Shale			1900	1920			
Slate & Shells			1920	2000			
White Slate			2000	2225			
Slate & Shells			2225	2290			
Black Shale			2290	2312			
Slate			2312	2705			
Brown Shale			2705	2730			
White Slate			2730	3212			
Gray Shale			3212	3250			
Brown Shale			3250	3385			
White Slate			3385	3400			
Brown Shale			3400	3545			
White Slate			3545	3555			
Total Depth			3555'				

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Date... December 14, 19 56

APPROVED UNITED FUEL GAS COMPANY, Owner

By S. R. Ferrell
(Title)

Supt., Civil Engineering Department

47-045-00544

WW-4A
Revised 6-07

1) Date: May 7, 2019
2) Operator's Well Number
808242
3) API Well No.: 47 - 47-045 - 00544

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

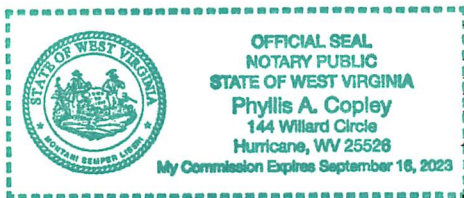
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Gary & Barbara Hensley</u>	Name <u>None</u>
Address <u>Route 1, Box 550</u>	Address _____
<u>Harts, WV 25524</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Pocahontas Development Corporation</u>
_____	Address <u>800 Princeton Avenue, P.O. Box 1517</u>
_____	<u>Bluefield, WV 24701</u>
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Jeffrey L. Smith</u>	(c) Coal Lessee with Declaration
Address <u>5349 Karen Circle, Apartment # 2101</u>	Name <u>Lexington Coal Company, LLC</u>
<u>Cross Lanes, WV 25313</u>	Address <u>1051 Main Street, Suite 2</u>
Telephone <u>681-313-6743</u>	<u>Milton, WV 25541</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 Core Appalachia Operating, LLC
 By: [Signature] Jessica Greathouse
 Its: Manager - EHS & Administration Services
 Address P.O. Box 6070
Charleston, WV 25362
 Telephone 304-353-5240

Subscribed and sworn before me this 7th day of May, 2019

My Commission Expires September 16, 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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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Core Appalachia Operating, LLC OP Code 494518671

Watershed (HUC 10) Buck Fork of Harts Creek Quadrangle Chapmanville

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: Plugging returns/Cement - Will utilize above ground tanks

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 20

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 Any fluid recovered will be hauled to a Core tank battery and disposed of properly)

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

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

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

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.

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

-Landfill or offsite name/permit number? _____

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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) Jessica Greathouse
Company Official Title Manager - EHS and Administrative Services



Subscribed and sworn before me this 7th day of May, 2019

Phyllis A. Copley Notary Public

Proposed Revegetation Treatment: Acres Disturbed 1 +/- Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 or equivalent

Fertilizer amount _____ lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Fescue	40	Red Fescue	15
Alsike	5	Alsike Clover	5
Annual Rye	15		

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: _____ WV Department of Environmental Protection

Field Reviewed? () Yes () No

CORE APPALACHIA OPERATING, L.L.C.

47-045-00544P

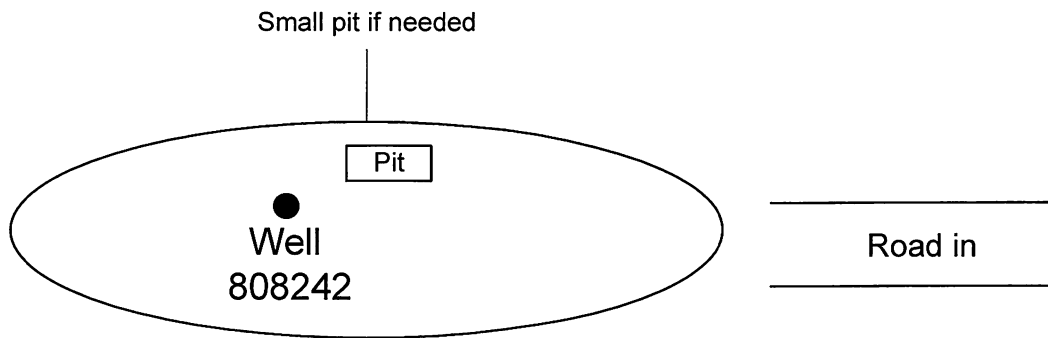
Diagram of Well 808242

API 47-045-00544

Field Office – Hamlin

County - Logan

Surface Owner:
Gary & Barbara
Hensley



Note: No Land Application if pit is used

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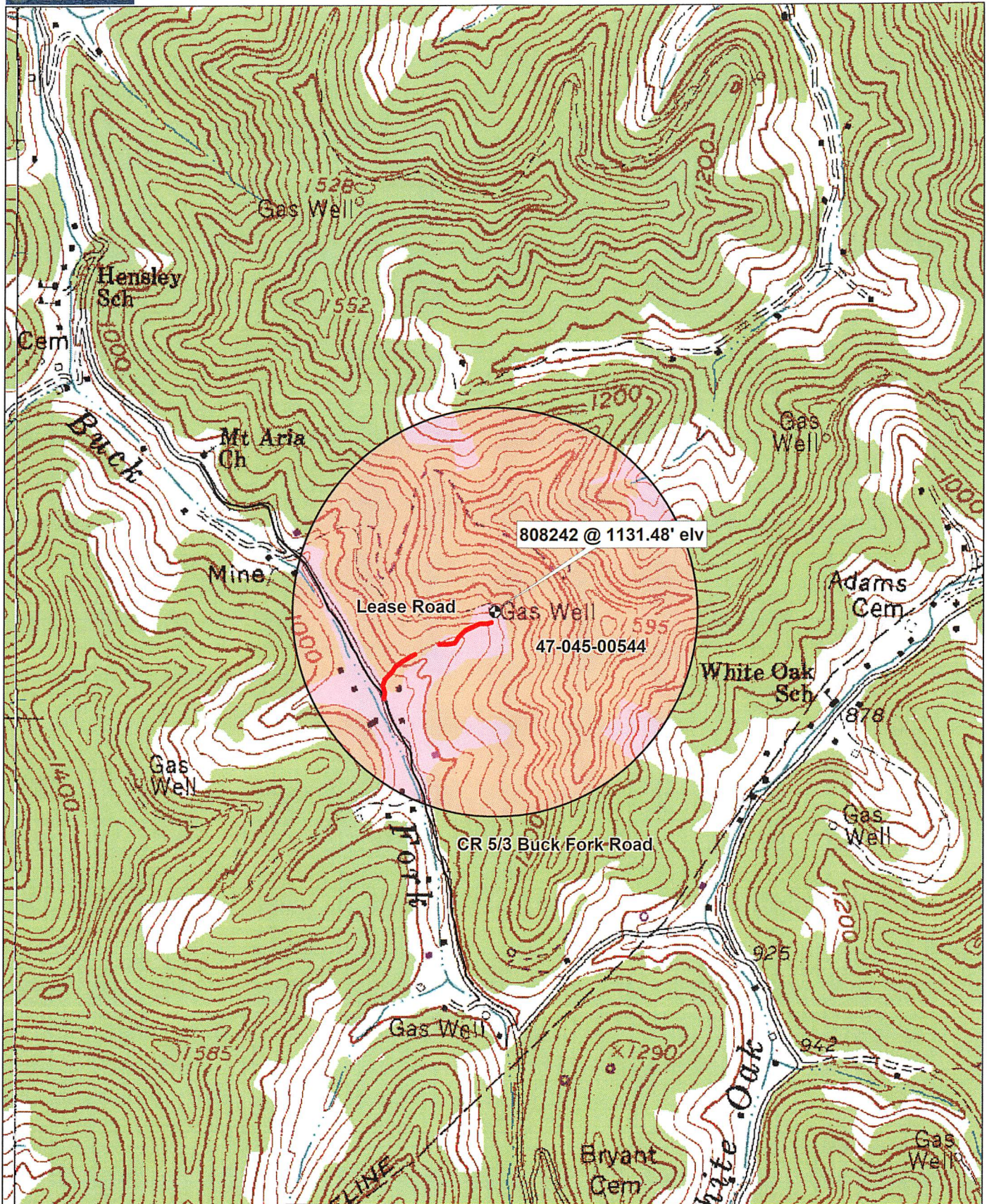
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Site Plan

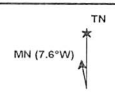
Prepared by: Kris Aldridge
Date: 5/7/2019

No Scale



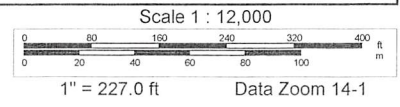
WELL 808242 P&A TOPO MAP

Data use subject to license.
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 www.delorme.com



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WW-7
8-30-06



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

API: 47-045-00544 WELL NO.: 808242
 FARM NAME: TCO MIN 503
 RESPONSIBLE PARTY NAME: Core Appalachia Operating, LLC
 COUNTY: Logan DISTRICT: Guyan
 QUADRANGLE: Chapmanville
 SURFACE OWNER: Gary & Barbara Hensley
 ROYALTY OWNER: Core Appalachia Production, LLC
 UTM GPS NORTHING: 4197407.01m
 UTM GPS EASTING: 402209.98m GPS ELEVATION: 344.88m [1131.48']

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 : Post Processed Differential

Real-Time Differential

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

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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

EHS Specialist

Title

5/7/19

Date