



 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, May 22, 2019
 WELL WORK PLUGGING PERMIT
 Vertical Plugging

CORE APPALACHIA OPERATING LLC
 414 SUMMERS STREET

CHARLESTON, WV 25301

Re: Permit approval for 805468
 47-043-00522-00-00

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: 805468
 Farm Name: LARRY ADKINS ETAL
 U.S. WELL NUMBER: 47-043-00522-00-00
 Vertical Plugging
 Date Issued: 5/22/2019

H

47-043-00522P
05/24/2019

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.

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 March 22, 2019
2) Operator's 05/24/2019
Well No. 805468
3) API Well No. 47-043-00522

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 1079.22' Watershed Bear Branch of Mud River
District Jefferson County Lincoln Quadrangle Mud

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 Jeffery 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

RECEIVED
Office of Oil and Gas

MAR 26 2019

WV Department of
Environmental Protection

OK *[Signature]*

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

Work order approved by inspector _____ Date 5/24/19

PLUGGING PROCEDURE

805468

LINCOLN COUNTY, WEST VIRGINIA

API# 47-043-00522

BY: DMC

DATE: 1/14/19

05/24/2019

Current Status

8 5/8" @ 589'

7" @ 1720'

2 3/8" @ 2167' w/ pkr @ 1751' - Ran 11/12/2004

TD @ 3897'

Berea/Shale: Shot 2402-3897'

Coal @ 80-83', 425-430'

Fresh Water @ No Record

Gas Show @ 1765', 2402-2407', 3490'

Elevation 1030'

9/20/2011 Echometer FL @ 518'

Objective: Plug and abandon4a) LOAD HOLE WITH 6% GEL FROM 3897'
TD 2000'.

- 1) Prepare road and location.
- 2) MIRU service rig and support equipment.
- 3) Blow well down. Check TD.
- 4) Attempt to pull 2 3/8" tbg w/ pkr. If unsuccessful, cut 2 3/8" tbg @ freepoint and pull.
- 5) Spot 100' cement plug at TD, ~ 2380 - 2280'. WOC, CHECK CEMENT TOP, ADD CEMENT IF NECESSARY.
- 6) Spot 6% gel from 2280 - 1810'.
- 7) Spot 140' cement plug from 1810 - 1670'.
- 8) Spot 6% gel from 1670 - 1080'.
- 9) Attempt to pull 7" csg. If unsuccessful, cut 7" csg at free point and pull.
- 10) Spot 100' cement plug from 1080 - 980'.
- 11) Spot 6% gel from 980 - 650'.
- 12) Attempt to pull 8 5/8" csg. If unsuccessful, cut 8 5/8" at free point and pull. Cut or rip holes at 425', 100', 80' if needed.
- 13) Spot 200' cement plug from 650 - 550'.
- 14) Spot 6% gel from 550 - 475'.
- 15) Spot 100' cement plug from 475 - 375'.
- 16) Spot 6% gel from 375 - 100'.
- 17) Spot 100' cement plug from 100' - Surface.
- 18) Pull work string and top off w/cement.
- 19) Erect permanent monument (30" minimum height and 6" minimum diameter pipe) with API # (1/2" height numbering) and reclaim.

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

805468
47-043-0050P

Madison

WELL RECORD

Permit No. LIN-522

Oil or Gas Well GAS
05/24/2019

Company United Fuel Gas Company
Address Box 1273, Charleston 25, W. Va.
Farm Courtney Company #16 Acres 7625.05
Location (waters) Bear Branch of Mud River
Well No. 5468 Elev. 1030
District Jefferson County Lincoln
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by The Courtney Company
Address Charleston, W. Va.
Drilling commenced 6-28-45
Drilling completed 9-14-45
Date Shot 9-17-45 From 2402 To 3897
With 14,550# Det.
Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume Gas Well Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
Fresh water No record feet _____ feet
Salt water " " feet _____ feet

| Casing and Tubing | Used in Drilling | Left in Well | Packers |
|-------------------|------------------|--------------|----------------|
| Size | | | Kind of Packer |
| 16 | | | |
| 13 | | | Size of |
| 10 | | | |
| 8 5/8 | 589 | 589 | Depth set |
| 7" | 1720 | 1720 | |
| 5 3/16 | | | Perf. top |
| 3 | | | Perf. bottom |
| 2 | | | Perf. top |
| Liners Used | | | Perf. bottom |

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Dat _____
COAL WAS ENCOUNTERED AT 80 FEET 36 INCHES
425 FEET 60 INCHES FEET INCHES
FEET INCHES FEET INCHES

| Formation | Color | Hard or Soft | Top | Bottom | Oil, Gas or Water | Depth Found | Remarks |
|-----------------------|-------|--------------|------|--------|-------------------|-------------|---------|
| Surface | | | 0 | 20 | | | |
| Sand | | | 20 | 40 | | | |
| Slate | | | 40 | 80 | | | |
| Coal | | | 80 | 83 | | | |
| Slate | | | 83 | 120 | | | |
| Sand | | | 120 | 200 | | | |
| Slate | | | 200 | 275 | | | |
| Sand | | | 275 | 350 | | | |
| Slate | | | 350 | 425 | | | |
| Coal | | | 425 | 430 | | | |
| Sand | | | 430 | 550 | | | |
| Slate & Shells | | | 550 | 720 | | | |
| Sand | | | 720 | 860 | | | |
| Slate | | | 860 | 880 | | | |
| Sand | | | 880 | 930 | | | |
| Slate | | | 930 | 935 | | | |
| Salt Sand | | | 935 | 1280 | | | |
| Broken | | | 1280 | 1345 | | | |
| Sand | | | 1345 | 1475 | | | |
| Slate | | | 1475 | 1485 | | | |
| Sand | | | 1485 | 1560 | | | |
| Brake | | | 1560 | 1562 | | | |
| Maxon Sand | | | 1562 | 1590 | | | |
| Red Rock | | | 1590 | 1600 | | | |
| Slate | | | 1600 | 1659 | | | |
| Little Lime | | | 1659 | 1697 | | | |
| Pencil Cave | | | 1697 | 1701 | | | |
| Big Lime | | | 1701 | 1895 | Gas | 1765 | |
| Injun Sand | | | 1895 | 1930 | | | |
| Slate & Shells | | | 1930 | 2044 | | | |
| Big Shell | | | 2044 | 2115 | | | |
| Slate & Shells | | | 2115 | 2384 | | | |
| Brown Shale | | | 2384 | 2402 | | | |
| Berea Grit | | | 2402 | 2427 | Gas | 2402-2407 | |
| Slate & Shells | | | 2427 | 2540 | | | |
| Slate | | | 2540 | 2570 | | | |
| Slate & Gritty Shells | | | 2570 | 2735 | | | |



[Handwritten signature]

47-043-00522P

05/24/2019

United Fuel Gas Company
COMPANY

TRIAL WELL NO. 5468 LEASE NO. 10894 MAP SQUARE 42-43

| | | | | | | |
|--|--------|-------------------|------------|------------------|----------------|--|
| RECORD OF WELL NO. <u>5468</u> | on the | CASING AND TUBING | | | | TEST BEFORE SHOT |
| <u>Murtney Co. #16</u> farm of <u>7625</u> Acres | | SIZE | WEIGHT | USED IN DRILLING | LEFT IN WELL | <u>4</u> /10 of Water in ... <u>2</u> ... inc |
| in <u>Jefferson</u> District | | | | | | /10 of Merc. in inc |
| <u>Lincoln</u> County | | <u>7" O.D.</u> | <u>22#</u> | <u>1729'6"</u> | <u>1729'6"</u> | Volume... <u>86</u> ... <u>M.</u> ... <u>Cu. f</u> |
| State of: <u>West Virginia</u> | | | | | | TEST AFTER SHOT |
| Field: <u>Kanawha</u> | | <u>8 3/8"</u> | <u>28#</u> | <u>589'1"</u> | <u>589'1"</u> | <u>13</u> /10 of Water in ... <u>3</u> ... inc |
| Rig Commenced By Contractor <u>194</u> | | | | | | <u>7</u> /10 of Merc. in inc |
| Rig Completed By Contractor <u>194</u> | | | | | | Volume ... <u>362</u> ... <u>M.</u> ... <u>Cu. f</u> |
| Drilling Commenced <u>June 28, 1945</u> | | | | | | <u>39</u> ... Hours After Sh |
| Drilling Completed <u>September 14, 1945</u> | | | | | | Rock Pressure <u>2741 - 48</u> lbs. |
| Drilling to cost per foot | | | | | | Date Shot <u>9-17-1945</u> |
| Contractor is: <u>R. H. Adkins</u> | | | | | | Size of Torpedo <u>14,550#</u> Doton |
| Address: <u>Hamlin, W. Va.</u> | | | | | | Oil Plowed ... lbs. 1st 24 hr |
| | | | | | | Oil Pumped ... lbs. 1st 24 hr |
| Driller's Name <u>Delbert Smith</u> | | | | | | Tubing or Casing |
| <u>Lawrence Cook</u> | | | | | | Size of Packer <u>6 5/8" x 8 1/4"</u> x <u>10"</u> |
| | | | | | | Well abandoned and |
| | | | | | | Kind of Packer <u>Parmaco B.H.</u> |
| | | | | | | Plugged <u>194</u> |
| | | | | | | 1st Perf. Set ... from ... |
| | | | | | | 2nd Perf. Set ... from ... |
| Elevation: <u>1030'</u> Topo. | | | | | | |

DRILLER'S RECORD

| FORMATION | TOP | BOTTOM | THICKNESS | REMARKS |
|----------------|-----|--------|-----------|---------|
| Surface | 0 | 20 | | |
| Sand | 20 | 40 | | |
| Slate | 40 | 80 | | |
| Coal | 80 | 83 | | |
| Slate | 83 | 120 | | |
| Sand | 120 | 200 | | |
| Slate | 200 | 275 | | |
| Sand | 275 | 350 | | |
| Slate | 350 | 425 | | |
| Coal | 425 | 430 | | |
| Sand | 430 | 550 | | |
| Slate & Shells | 550 | 720 | | |
| Sand | 720 | 860 | | |
| Slate | 860 | 880 | | |
| Sand | 880 | 930 | | |
| Slate | 930 | 935 | | |
| Salt Sand | 935 | 1280 | | |

SERIAL WELL NO. 5468

LEASE NO. 10894

MAP SQUARE 42-43

DRILLER'S RECORD

| FORMATION | TOP | BOTTOM | THICKNESS | REMARKS |
|-----------------------|------|--------|-----------|--|
| Broken | 1280 | 1345 | | |
| Sand | 1345 | 1475 | | |
| Slate | 1475 | 1485 | | |
| Sand | 1485 | 1560 | | |
| Brake | 1560 | 1562 | | |
| Maxon Sand | 1562 | 1590 | | |
| Red Rock | 1590 | 1600 | | |
| Slate | 1600 | 1659 | | |
| Little Lime | 1659 | 1697 | | |
| Pencil Cave | 1697 | 1701 | | |
| Big Lime | 1701 | 1895 | | 6 5/8" Casing Point 1720'8". |
| Injun Sand | 1895 | 1930 | | Gas 26/10 W in 1" at 1765'. |
| Slate & Shells | 1930 | 2044 | | |
| Big Shell | 2044 | 2115 | | |
| Slate & Shells | 2115 | 2384 | | |
| Brown Shale | 2384 | 2402 | | Lime Gas 4/10 Water in 1" at 2402'. S.L. |
| Berea Grit | 2402 | 2427 | | Gas 8/10 W in 2" at 2407'. |
| Slate & Shells | 2427 | 2540 | | Gas 4/10 W in 2" at 2476'. |
| Slate | 2540 | 2570 | | Gas 5/10 W in 2" at 3490'. |
| Slate & Gritty Shells | 2570 | 2735 | | Gas 5/10 W in 2" at 3524'. |
| White Slate | 2735 | 2941 | | |
| Gray Shale | 2941 | 3109 | | |
| White Slate | 3109 | 3231 | | |
| Gray Slate & Shells | 3231 | 3476 | | |
| Gray Shale | 3476 | 3524 | | |
| Brown Shale | 3524 | 3890 | | |
| White Slate | 3890 | 3897 | | |
| Total Depth | 3897 | S.L.M. | | |

APPROVED
J.R. Hussey
 DIVISION SURVEILLANT

WW-4A
Revised 6-07

1) Date: March 22, 2019
2) Operator's Well Number
805468
3) API Well No.: 47 - 47-043 - 00522

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

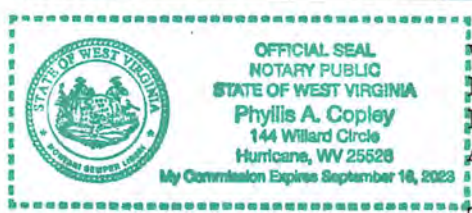
| | |
|---|--|
| 4) Surface Owner(s) to be served: | 5) (a) Coal Operator |
| (a) Name <u>Larry Adkins, et als</u> | Name <u>None</u> |
| Address <u>115 Frank Fork</u> | Address _____ |
| <u>Alkol, WV 25501</u> | |
| (b) Name _____ | (b) Coal Owner(s) with Declaration |
| Address _____ | Name <u>Courtney Minerals, LLC</u> |
| | Address <u>135 Corporate Center Drive, Suite 510</u> |
| | <u>Scott Depot, WV 25560</u> |
| (c) Name _____ | Name _____ |
| Address _____ | Address _____ |
| | |
| 6) Inspector <u>Jeffery L. Smith</u> | (c) Coal Lessee with Declaration |
| Address <u>5349 Karen Circle, Apartment #2101</u> | Name <u>None</u> |
| <u>Cross Lanes, WV 25313</u> | Address _____ |
| Telephone <u>681-313-6743</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 | <u>Core Appalachia Operating, LLC</u> | RECEIVED |
| By: | <u>Jessica Greathouse</u> | Office of Oil and Gas |
| Its: | <u>Manager - EHS & Administration Services</u> | <u>MAR 26 2019</u> |
| Address | <u>P.O. Box 6070</u> | |
| | <u>Charleston, WV 25362</u> | WV Department of |
| Telephone | <u>304-353-5240</u> | Environmental Protection |

Subscribed and sworn before me this 22nd day of March 2019
Phyllis A. Copley Notary Public
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.

WW-9
(5/16)

API Number 47-043-00522
Operator's Well No. 805468

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) Bear Branch of Mud River Quadrangle Mud

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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WV Department of
Environmental Protection

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



OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Phyllis A. Copley
144 Willard Circle
Hurricane, WV 25528

My Commission Expires September 16, 2023

Subscribed and sworn before me this 22nd day of March, 20 19

Phyllis A. Copley Notary Public

My commission expires September 16, 2023

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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WV Department of
Environmental Protection

Title: _____ Date: _____

Field Reviewed? () Yes () No

CORE APPALACHIA OPERATING, L.L.C.

47-043-00522 P

05/24/2019

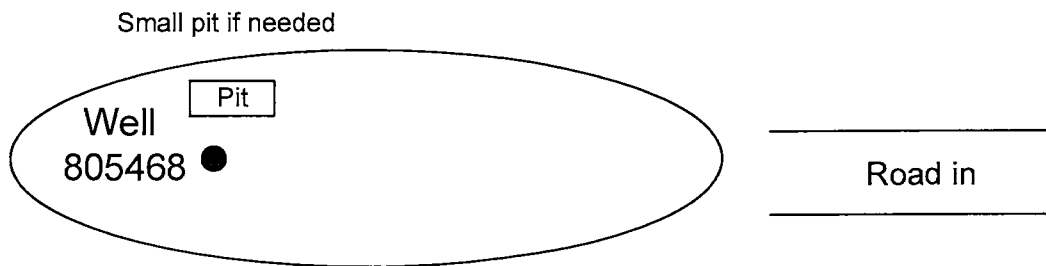
Diagram of Well 805468

API 47-043-00522

Field Office – Hamlin

County - Lincoln

Surface Owner:
Larry Adkins etal



Note: No Land Application if pit is used

RECEIVED
Office of Oil and Gas

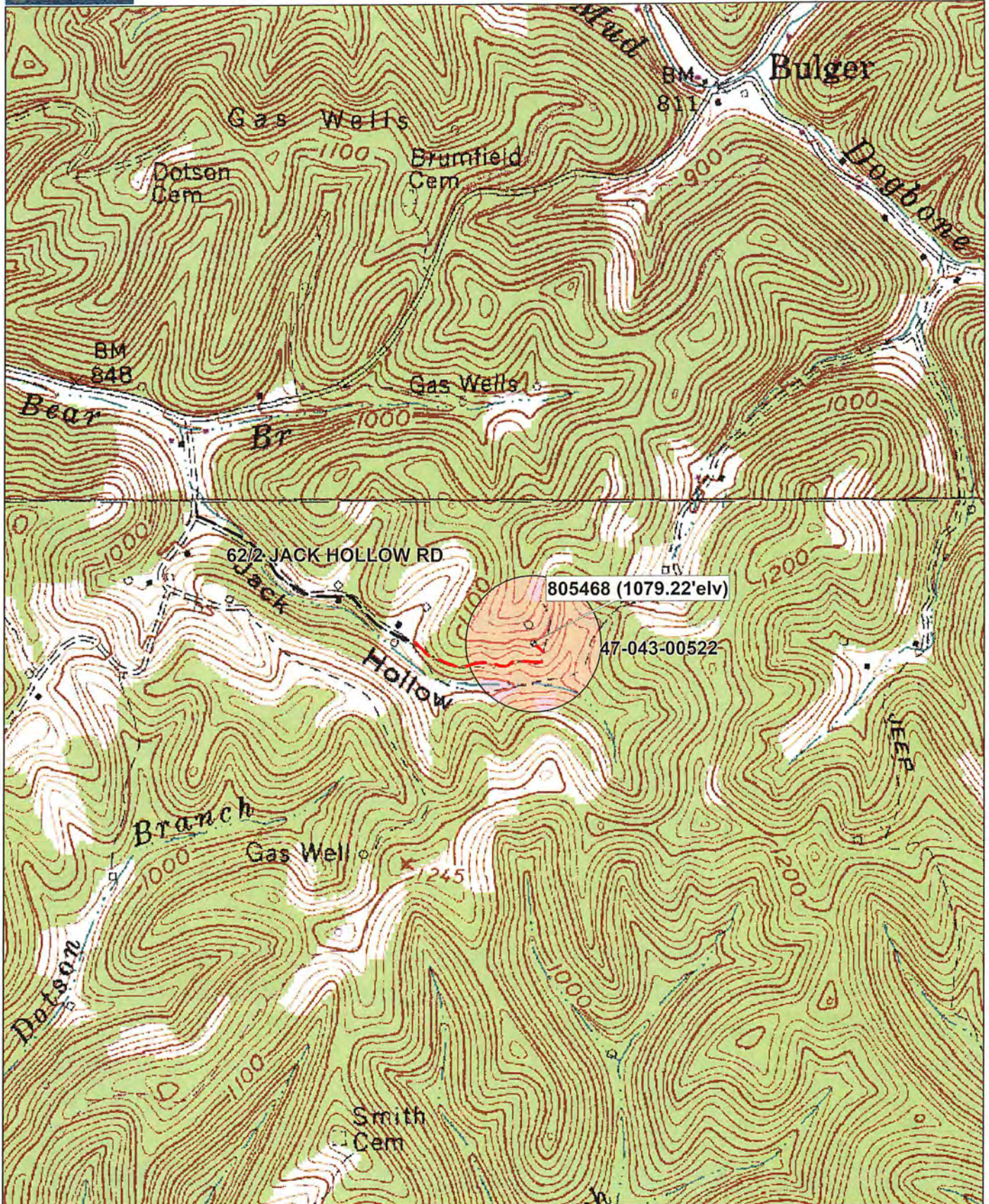
MAR 26 2019

WV Department of
Environmental Protection

Site Plan

Prepared by: Kris Aldridge
Date: 3/22/2019

No Scale



WELL 805468 P&A TOPO MAP

Data use subject to license.

© DeLorme. XMap® 8.

www.delorme.com

MAR 26 2019

WV Department of Environmental Protection



Scale 1: 12,000



1" = 227.0 ft

Data Zoom 15-0

WW-7
8-30-06



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

API: 47-043-00522 WELL NO.: 805468
 FARM NAME: Courtney Company 16
 RESPONSIBLE PARTY NAME: Core Appalachia Operating, LLC
 COUNTY: Lincoln DISTRICT: Jefferson
 QUADRANGLE: Mud
 SURFACE OWNER: Larry Adkins etal
 ROYALTY OWNER: Courtney Minerals LLC
 UTM GPS NORTHING: 4219837.09m
 UTM GPS EASTING: 413587.47m GPS ELEVATION: 328.95m [1079.22' elev]

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

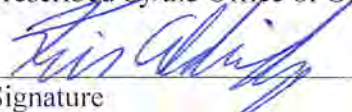
Real-Time Differential

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

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

EHS Specialist
Title

3/22/19
Date