



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, September 20, 2019
WELL WORK PLUGGING PERMIT
Vertical Plugging

CORE APPALACHIA OPERATING LLC
414 SUMMERS STREET

CHARLESTON, WV 25301

Re: Permit approval for 8038
47-045-00407-00-00

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: 8038
Farm Name: ADKINS, R. H., ETAL
U.S. WELL NUMBER: 47-045-00407-00-00
Vertical Plugging
Date Issued: 9/20/2019

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.
4. This well is under a consent order and must be plugged under the terms of that agreement.

47-045-00407 P

WW-4B
Rev. 2/01

1) Date July 22, 2019
2) Operator's Well No. 808038
3) API Well No. 47-045 - 00407 P

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 285.89 m Watershed Hoover Fork of Big Harts Creek
District Guyan County Logan Quadrangle Trace
- 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 Name Jeffery L. Smith
Address 5349 Karen Circle, Apartment #2101
Cross Lanes, WV 25313
- 9) Plugging Contractor Name R & J Well Service, Inc.
Address P.O. Box 40
Hueysville, KY 41640-0040

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

SEE ATTACHED SHEET

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Office of Oil and Gas
JUL 24 2019
WV Department of
Environmental Protection

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 PROCEDURE
808038
LOGAN COUNTY, WEST VIRGINIA
API# 47-045-00407

47-045-00407P

BY: JAM
DATE: 7/18/2019

Current Status

Csg Schedule

- 10" @ 22'
- 8 5/8" @ 263'
- 7" @ 1446'
- 2 3/8" tbg @ 3323' w/ hook wall packer (2 3/8" x 7" x 16") at 1852'
- TD @ 3,414'

Completion

- Shale: Shot 2389-3414'
- Coal @ 70'- 74', 100'- 105', 130'- 140',
Fresh Water @ 315'
Oil Show @ 725', 1075'
Gas Show @ 2410', 2730', 2960', 3170'
Elevation 929'

Objective: Plug and abandon

- 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 and packer.
 - a. If successful: TIH w/ tbg to 2389'. Load hole with 6% bentonite gel to 2389'. Pump 100' C1A cement plug from 2389'- 2289'
 - b. If unsuccessful: Free point and shoot tbg off above packer (1852'). TOOH w/ tbg and inspect. TIH w/ tbg to 1852'. Load hole with 6% bentonite gel to 1852'. Pump 100' C1A cement plug from 1852'- 1752'
- 5) TOOH w/ tbg to 1752'. Pump 6% bentonite gel from 1752'- 1496'
- 6) TOOH w/ tbg to 1496'. Pump 100' C1A cement plug from 1496'- 1396'.
- 7) TOOH w/ tbg. Free point 7" csg. Shoot or rip csg at free point. TOOH w/ 7" csg. A 100' C1A cement plug must be set across csg cut. Any plugs below that will remain behind 7" csg must be shot or ripped at bottom of plug and then every 50' through plug.
- 8) TIH w/ tbg to 1396'. Pump 6% bentonite gel 1396'- 1125'
- 9) TOOH w/ tbg to 1125'. Pump 100' C1A cement from 1125'- 1025'
- 10) TOOH w/ tbg to 1025'. Pump 6% bentonite gel from 1025'- 929'
- 11) TOOH w/ tbg to 929'. Pump 100' C1A cement from 929'- 829'
- 12) TOOH w/ tbg to 829'. Pump 6% bentonite gel from 829'- 775'
- 13) TOOH w/ tbg to 775'. Pump 100' C1A cement from 775'- 675'
- 14) TOOH w/ tbg to 675'. Pump 6% bentonite gel from 675'- 365'
- 15) TOOH w/ tbg to 365'. Pump 100' C1A cement from 365'- 265'
- 16) TOOH w/ tbg. Free point 8 5/8" csg. Shoot or rip csg at free point. TOOH w/ 8 5/8" csg. Any plugs below that will remain behind 8 5/8" csg must be shot or ripped at bottom of plug and then every 50' through plug.
- 17) TIH w/ tbg to 265'. Pump 265' C1A cement plug from 265' to 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 9

Well. 808038
47-045-00407P

Quadrangle Holden
Permit No. LOG-407

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company UNITED FUEL GAS CO.
Address P.O. Box 1273, Charleston 25, W. Va.
Farm R. H. Adkins, et al Acres 106
Location (waters) Hoover Fork
Well No. 8038 Elev. 929.51'
District Chapmansville County Logan
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by R. H. Adkins, et al
Address Hamlin, W. Va.
Drilling commenced 6-8-54
Drilling completed 8-6-54
Date Shot 8-10-54 From 2389 To 3414'
With 6,616-2/3# Gelatin
Open Flow 18 /10ths Water in _____ 2 Inch
_____/10ths Merc. in _____ Inch
Volume 179,000 Cu. Ft.
Rock Pressure 460 lbs. 48 hrs.
Oil _____ bbls., 1st 24 hrs.
Fresh water 315 feet
Salt water _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			<u>Anchor</u>
13			Size of
10		<u>22'</u>	<u>2-3/8"x7"x16"</u>
<u>8"x-5/8"</u>		<u>263'</u>	Depth set
<u>1 1/2" 7"</u>		<u>1446'</u>	<u>1852</u>
<u>xxxxx 2-3/8"</u>		<u>3323'</u>	Perf. top
3			Perf. bottom
2			Perf. top
Liners Used			Perf. bottom

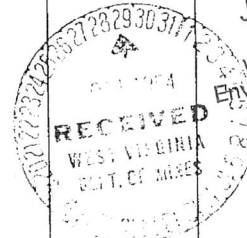
CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
COAL WAS ENCOUNTERED AT 70 FEET 48 INCHES
100 FEET 60 INCHES 130 FEET 120 INCHES

FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Mud			0	10	Water 315'	hole full	
Creek Sand			10	18	Show oil 725' & 1075'		
Mud			18	22	Show gas 2410'		
Sand			22	40			
Mud			40	70	Show gas 2730'		
Coal			70	74			
Mud			74	80	Gas 2960'	3/10 W 1" 18 M	
Sand			80	92			
Slate			92	100	Gas 3170'	6/10 W 1" 26 M	
Coal			100	105			
Slate			105	130	Test before shot 4/10 W 1" 21 M		
Coal			130	140	Shot 8-10-54 with 6,616-2/3# Gelatin		
Slate			140	245	from 2389-3414'		
Sand			245	312	Test 20 hrs. after shot	18/10 W 2" 179M	
Slate			312	350			
Sand			350	390			
Slate			390	425	FINAL OPEN FLOW - 179 M Br. Shale		
Sand			425	568	48 Hr. R.P. 460#		
Slate			568	610			
Sand			610	668			
Slate			668	710			
Salt Sand			710	890			
Slate & Shells			890	1066			
Sand			1066	1265			
Slate			1265	1275			
Red Rock			1275	1280			
Slate & Shells			1280	1305			
Red Rock			1305	1310			
Slate & Shells			1310	1344			
Maxen Sand			1344	1365			
Slate			1365	1370			
Sand			1370	1375			
Little Lime			1375	1409			
Slate			1409	1436			
Big Lime			1436	1635			
Keener Sand			1635	1655			
Injun Sand			1655	1685			
Slate & Shells			1685	1800			
Big Shell			1800	1890			
Slate & Shells			1890	2190			

(Over)

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Well 808038
47-045-00407A

Formation	Color	Hard or Soft	Top 9	Bottom	Oil, Gas or Water	Depth Found	Remarks
Brown Shale			2190	2210			
Berea Sand			2210	2220			
Slate & Shells			2220	2250			
Brown Shell			2250	2280			
Slate & Shells			2280	3075			
Brown Shale			3075	3365			
Slate			3365	3414			
Total depth			3414'				

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Date October 28, 19 54

APPROVED UNITED FUEL GAS CO., Owner

By S.R. Furell
(Title)

Mgr. Civil Engr. Dept.

WW-4A
Revised 6-07

1) Date: July 22, 2019
2) Operator's Well Number 808038

3) API Well No.: 47 - 045 - 00407

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

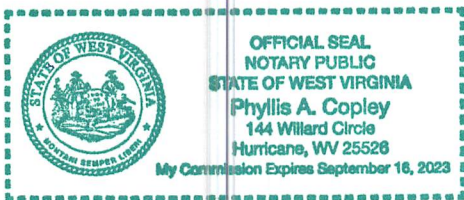
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Lyme Mountaineer Timberlands, LLC</u>	Name <u>None</u>
Address <u>C/O The Lyme Timber Company</u>	Address _____
<u>23 South Main Street, Hanover, NH 03755</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Southern Region Industrial, Inc.</u>
_____	Address <u>Three Commercial Place</u>
_____	<u>Norfolk, VA 23510</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>Lexington Coal Company</u>
<u>Cross Lanes, WV 25313</u>	Address <u>P.O. 58370</u>
Telephone <u>681-313-6743</u>	<u>Charleston, WV 25358</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 Office of Oil and Gas
By:	<u>JG</u> Jessica Greathouse	
Its:	<u>Manager - Environmental, Health & Safety</u>	JUL 24 2019
Address	<u>P.O. Box 6070</u>	
	<u>Charleston, WV 25362</u>	WV Department of Environmental Protection
Telephone	<u>304-353-5240</u>	

Subscribed and sworn before me this _____ day of July, 2019

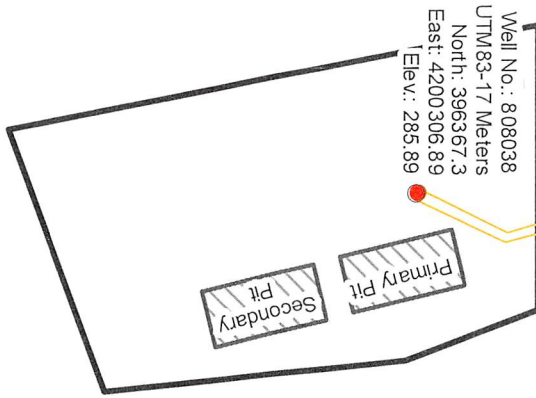
Notary Public

My Commission Expires September 16, 2023

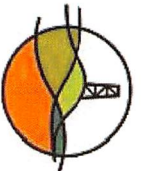
Oil and Gas Privacy Notice

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 depprivacyoffier@wv.gov.

47-045-00407P



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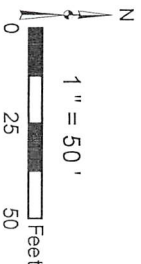
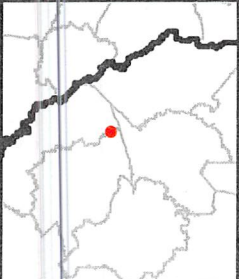
Diversified Gas & Oil
 Corporation
 100 Diversified Way
 Pikeville KY, 41051

808038

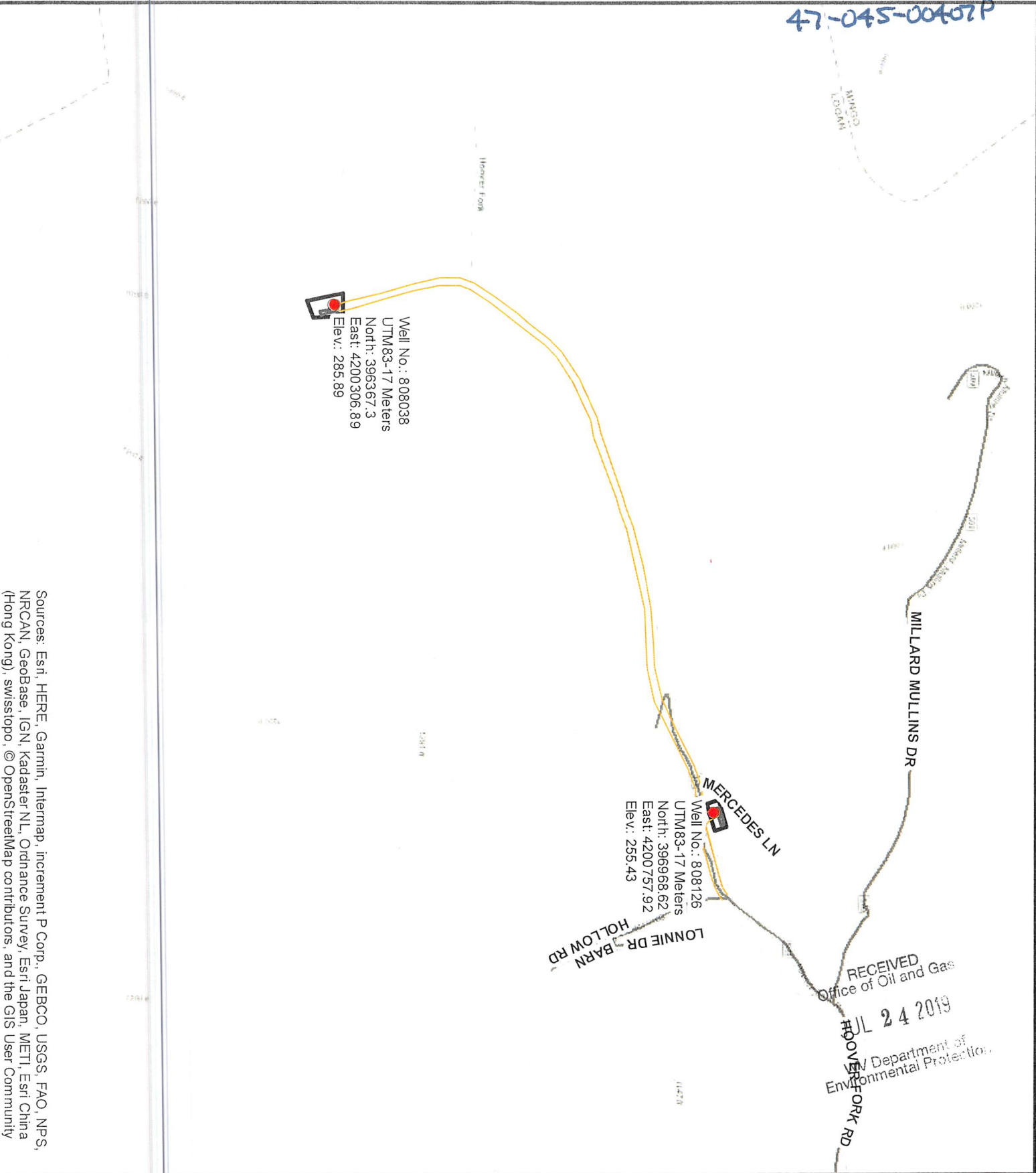
Plugging Map

Legend

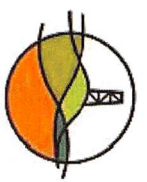
- Well
- ⊗ Sediment Control
- Access Road
- ▨ Pits
- ▭ Pad
- Public Roads



47-045-00407P



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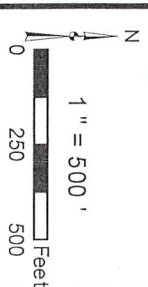
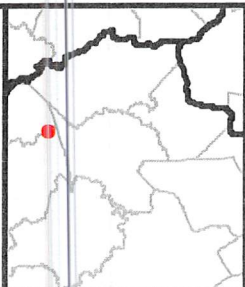
Diversified Gas & Oil
 Corporation
 100 Diversified Way
 Pikeville KY, 41051

808038 & 808126

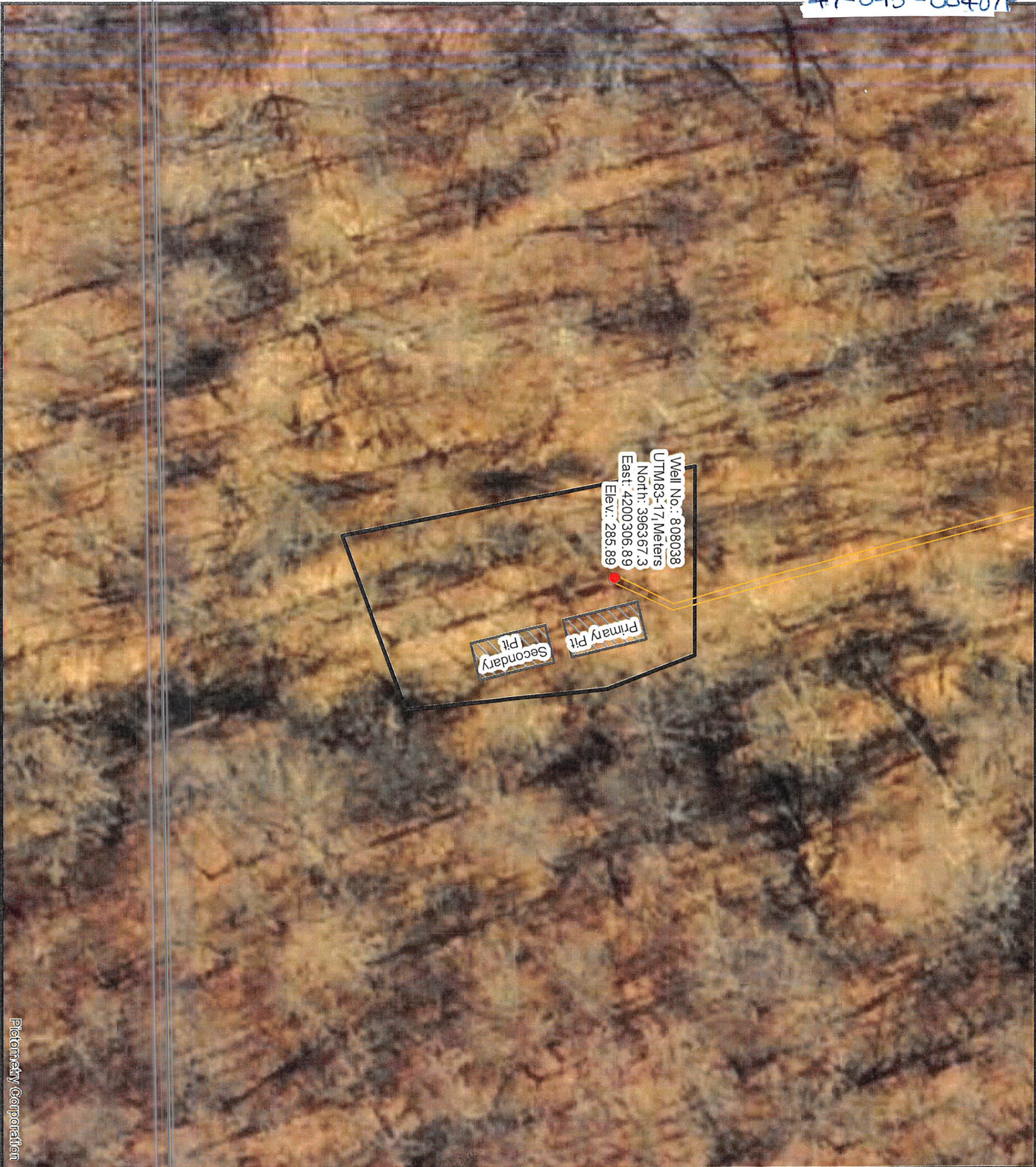
Plugging Map

Legend

- Well
- ⊗ Sediment Control
- Access Road
- ▨ Pits
- Pad
- Public Roads



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



Petrometry Corporation

REC-
Office of Oil and
GAS
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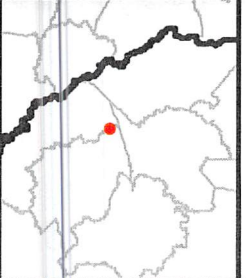
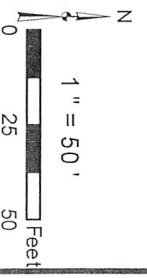
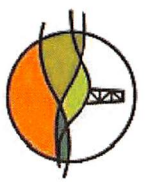
- Well
- ✕ Sediment Control
- Access Road
- ▨ Pits
- ▭ Pad
- Public Roads

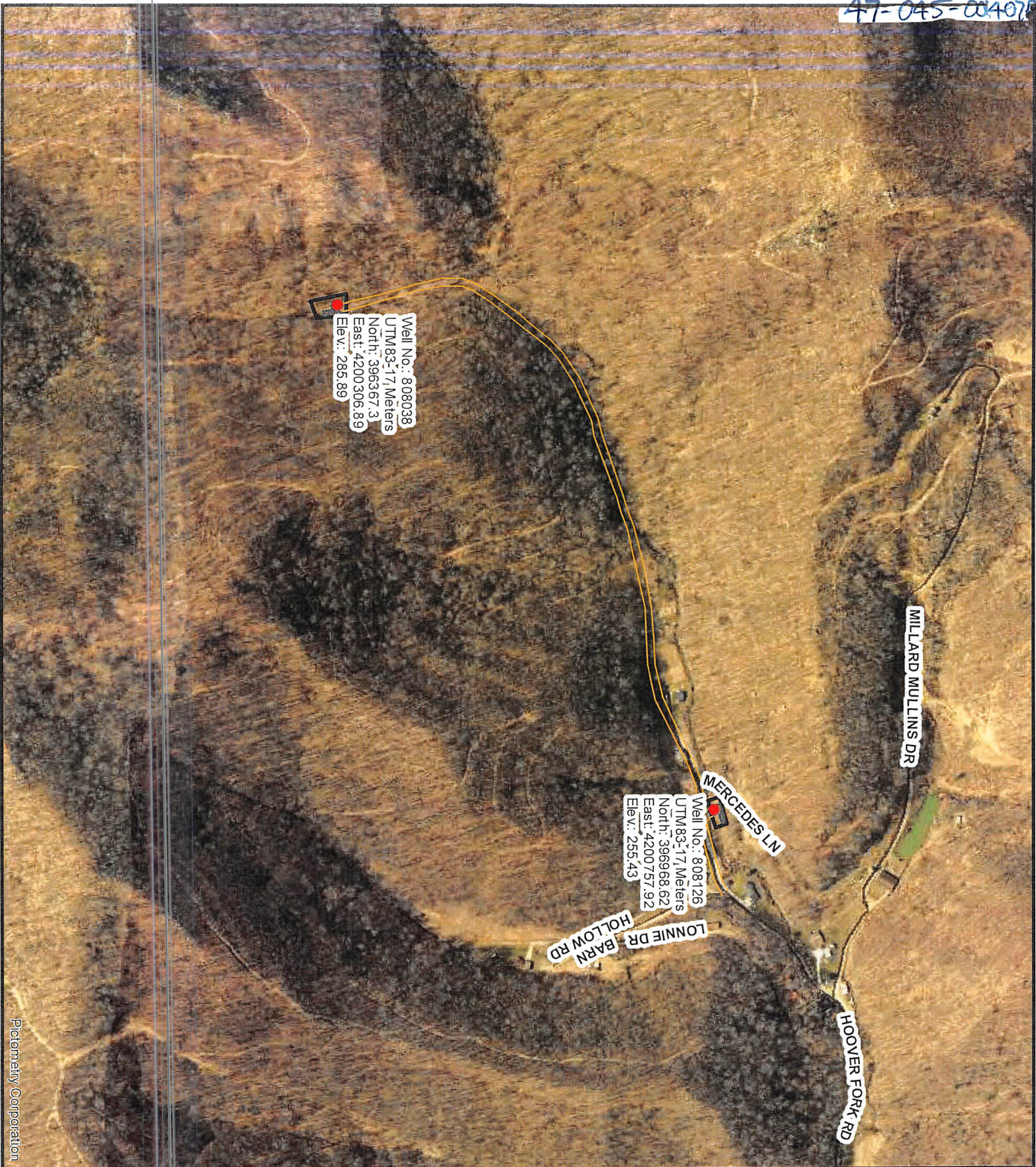
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808038

Plugging Map

Diversified Gas & Oil
Corporation
100 Diversified Way
Pikeville KY, 41051





Pictometry Corporation



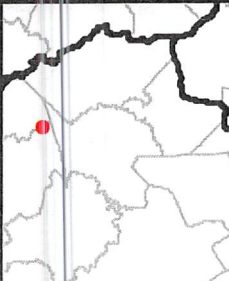
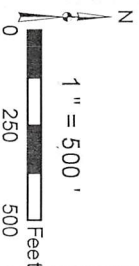
Diversified Gas & Oil
 Corporation
 100 Diversified Way
 Pikeville KY, 41051

808038 & 808126
 Plugging Map

Legend

- Well
- ✕ Sediment Control
- Access Road
- ▨ Pits
- ▭ Pad

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WW-9
(5/16)

API Number 47 - 045 - ~~00407~~
Operator's Well No. 808038

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) Hoover Fork of Big Harts Creek Quadrangle Trace

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? _____

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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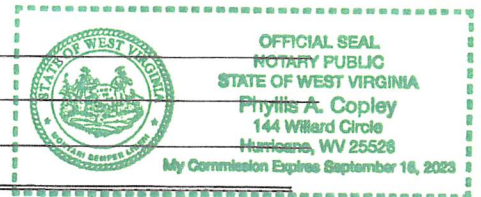
WV Department of
Environmental Protection

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 - Environmental, Health & Safety



Subscribed and sworn before me this 22nd day of July, 2019

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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Title: _____ Date: _____

Field Reviewed? () Yes () No

47-045-00407

