



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

January 16, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4300171, issued to CHESAPEAKE APPALACHIA, L.L.C., 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: 804626
Farm Name: STOWERS, BUSTER & OLLIE
API Well Number: 47-4300171
Permit Type: Plugging
Date Issued: 01/16/2015

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.

4300171P

FORM WW-4 (B)
Observe
File Copy
(Rev. 2/01)

1) Date: 10/21/2014
2) Operator's Well No. 804626 P&A
3) API Well No. 47-043-00171

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

CK 5209811
100⁰⁰

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil _____ Gas X Liquid injection _____ Waste disposal _____
 (Is Gas, Production X or Underground storage _____) Deep _____ Shallow X

5) Location: Elevation 1087' Watershed Bear Branch of Peters Cave Fork
 District Duval County Lincoln Quadrangle Griffithsville, WV 7.5'

6) Well Operator Chesapeake Appalachia, L.L.C. 7) Designated Agent Eric B. Gillespie
 Address P.O. Box 18496 Address P.O. Box 6070
Oklahoma City, OK 73154-0496 Charleston, WV 25362

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
 Name Ralph Triplett Name Chesapeake Appalachia, L.L.C.
 Address 5539 McClellan Highway Address P.O. Box 18496
Branchland, WV 25506 Oklahoma City, OK 73154-0496

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

See Attached Sheet

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

Work Order approved by Inspector

Ralph D. Triplett

Date 10/22/14

Received
Office of Oil & Gas

OCT 29 2014

804626 P&A

NOTE: 3 1/2" is parted at 1910' and we can't get down hole

- 1) Run W.S. to 1900', spot gel
- 2) Spot 250' cement plug 1900'-1650', pull W.S.
- 3) Cut 6 5/8" at free-point (approximately 900') and pull
- 4) Run W.S. to 900', spot gel
- 5) Spot 150' cement plug 900'-750', pull W.S.
- 6) Attempt to pull 8 1/4" casing
 - A) If successful:
 - a) Run W.S. To 540', spot gel
 - b) Spot 100' cement plug 540'-440', pull W.S. to 315'
 - c) Spot 165' cement plug 315'-150'
 - d) Proceed to step #7
 - B) If unsuccessful:
 - a) Rip or shoot holes at 490'
 - b) Run W.S. to 590', spot gel
 - c) Spot 150' cement plug 590'-440', pull W.S.
 - d) Cut 8 1/4" at free-point (approximately 310') and pull. If unable to pull 300' of 8 1/4", then rip holes at coal seams.
 - e) Run W.S. to 300', spot gel
 - f) Spot 150' cement plug 300'-150'
 - g) Proceed to step #7
- 7) Pull W.S. to 125'
- 8) Spot 125' cement plug 125'-surface
- 9) Pull W.S. and top off with cement
- 10) Erect monument and reclaim as prescribed by law

OK
RDT
10/20/14

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47-043-00171P
 Well 804620 P+A
 Prof. Master

G-14

WEST VIRGINIA DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL RECORD

Page 1 of 2

Permit No. Lin-171

Oil or Gas Well Gas
 (Kind)

Company	UNITED FUEL GAS COMPANY	Casing and Tubing	Used in Drilling	Left in Well	Packers
Address	CHARLESTON, W. VA.	Size			
Farm	Horse Creek Land & Mining Co., Acres 11,324	18			Kind of Packer
Location (waters)		13			Hook Well
Well No.	4626 Elev. 1050'	10			Size of
District	Duval County Lincoln	8 1/2	536' 8"	536' 8"	3 x 6-5/8"
The surface of tract is owned in fee by	Address	6 5/8	1733' 4"	1733' 4"	Depth set
Mineral rights are owned by	Address	5 3/16		2440' 9"	Perf. top
Drilling commenced	July 16, 1936	3			Perf. bottom
Drilling completed	October 15, 1936	2			Perf. top
Date shot	October 8, 1936 Depth of shot	Liners Used			Perf. bottom
Open Flow	10 /10ths Water in 2 Inch				
	5 /10ths More in 2 Inch				
Volume	475# shale 544,000 Cu. Ft.				
Rock Pressure	300# Berea lbs.				
Oil					
Fresh water	180 feet 230 feet				
Salt water	960 feet				
		CASING CEMENTED		SIZE	No. FT. Date
		COAL WAS ENCOUNTERED AT		95 FEET 36 INCHES	
				260 FEET 36 INCHES 280 FEET 48 INCHES	
				489 FEET 48 INCHES FEET INCHES	

ROT

Formation	Color	Hard or Soft	Top	Bottom	Oil Gas or Water	Depth Found	Remarks
Clay			0	16			
Slate			16	40			
Sand			40	90			
Slate			90	95			
Coal			95	98			
Slate			98	105			
Sand			105	235	Water	180'	
Slate			235	260	Water	230'	
Coal			260	263			
Slate			263	280			
Coal			280	284			
Slate			284	320			
Sand			320	465			
Slate			465	477			
Lime			477	489			
Coal			489	493			
Slate			493	527			
Lime			527	590			
Sand			590	630			
Slate			630	748			
Sand			748	785			
Slate & Lime			785	823			
Lime			823	833			
Slate			833	853			
Salt Sand			853	1019	Water	960'	
Slate			1019	1050			
Salt Sand			1050	1080			
Slate			1080	1124			
Salt Sand			1124	1252			
Slate			1252	1307			
Salt Sand			1307	1335			
Slate Shells			1335	1346			
Salt Sand			1346	1390			
White Slate			1390	1395			
Salt Sand			1395	1530			
Red Rock			1530	1555			
Slate & Shells			1555	1625			
Maxon Sand			1625	1666			
Black Slate			1666	1670			

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(Over)

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Little Lime			1670	1709			
Pencil Cave			1709	1714			
Big Lime			1714	1925			
Red Injun Sand			1925	1946			
Slate & Shells			1946	2355			
Lime Shell			2355	2367			
Slate			2367	2390			
Brown Shale			2390	2405	Gas		15/10 W 2"184 M
Berea Grit			2405	2430	Gas	2409-2414	13/10 W 2"169 M
Slate			2430	2455	Gas	2414-2415	15/10 W 2"184 M
Lime			2455	2460			
Slate			2460	2666			
Lime			2666	2686			
Slate & Shells			2686	3175			
Sandy Shell			3175	3185			
Slate			3185	3340			
Shell			3340	3352	Gas		16/10 W 2"190 M
Slate			3352	3398	Gas	3352-3358	18/10 W 2"202 M
Shell			3398	3570	Gas	3398	21/10 W 2"218 M
Brown Shale			3570	3985	Gas	3570-3576	20/10 W 2"213 M
White Slate			3985	4334	Gas	3923-3933	33/10 W 2"274 M
Brown Shale			4334	4561			
C. Lime			4561	4566			
Total depth				4566			

Page 2 of 2

ROT

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Date....., 19.....
 APPROVED UNITED FUEL GAS COMPANY, Owner
 By.....
 (Title) Engineer

4300171 P

WW4-A
Revised
2/01

1) Date: 10/21/2014
2) Operator's Well No. 804626 P&A
3) API Well No. 47-043-00171

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
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:
(a) Name Thomas Stowers
Address 114 Morton Drive
Hamlin, WV 25523

(b) Name Dorsel Stowers
Address 8126 Straight Fork
Hamlin, WV 25523

(c) Name _____
Address _____

6) Inspector Ralph Triplett
Address 5539 McClellan Highway
Branchland, WV 25506

Telephone 304-389-0350

5) Coal Operator
(a) Name Robin land Company, LLC
Address 500 Lee Street, East, Suite 900
Charelston, WV 25301

Coal Owner(s) with Declaration
(b) Name Horse Creek Coal Land
Address 300 Capitol Street, Suite 1503
Charleston, WV 25301

Name _____
Address _____

Coal Lessee with Declaration
(c) Name Robin land Company, LLC
Address 500 Lee Street, East, Suite 900
Charelston, WV 25301

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 the 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 the 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: Chesapeake Appalachia, L.L.C.
By: [Signature]
Its: Completions Superintendent
Address: P.O. Box 18496
Oklahoma City, OK 73154-0496
Telephone: 405-935-4073



Subscribed and sworn before me this 21 day of October the year of 2014

[Signature] Notary Public

My Commission Expires September 16, 2018

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804626 P&A

47-043-00171P

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Restricted Delivery Fee (Endorsement Required)	10.00		
Total Postage & Fees	\$ 47.61		10/22/2014

Sent To
 804626 P&A
 Thomas Stowers
 114 Morton Drive
 Hamlin, WV 25523

PS Form 3800

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Restricted Delivery Fee (Endorsement Required)	10.00		
Total Postage & Fees	\$ 47.61		10/22/2014

Sent To
 804626 P&A
 Dorsel Stowers
 8126 Straight Fork
 Hamlin, WV 25523

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Restricted Delivery Fee (Endorsement Required)	10.00		
Total Postage & Fees	\$ 47.61		10/22/2014

Sent To
 804626 P&A
 Horse Creek Coal Land
 300 Capitol Street, Suite 1503
 Charleston, WV 25301

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Total Postage & Fees	\$ 47.61		10/22/2014

Sent To
 804626 P&A
 Robin Land Company, LLC
 500 Lee Street, East, Suite 900
 Charleston, WV 25301

PS Form 3800

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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 Chesapeake Appalachia, L.L.C. OP Code 494477557
Watershed Bear Branch of Peters Cave Fork Quadrangle Griffithsville, WV 7.5'
Elevation 1087' County Lincoln District Duval

Description of anticipated Pit Waste: Plugging Returns/Cement

Will a synthetic liner be used in the pit? Yes 20 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 _____)

Proposed Work For Which Pit Will Be Used:
 Drilling
 Workover
 Swabbing
 Plugging
 Other (Explain _____)

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on December 31, 1999, 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 *R. E. Schindler*

Company Official (Typed Name) Robert E. Schindler

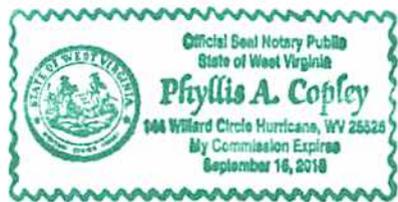
Company Official Title Completions Superintendent

Subscribed and sworn before me this 21 day of October, 2014.

Phyllis A. Copley Notary Public.

My Commission Expires September 16, 2018

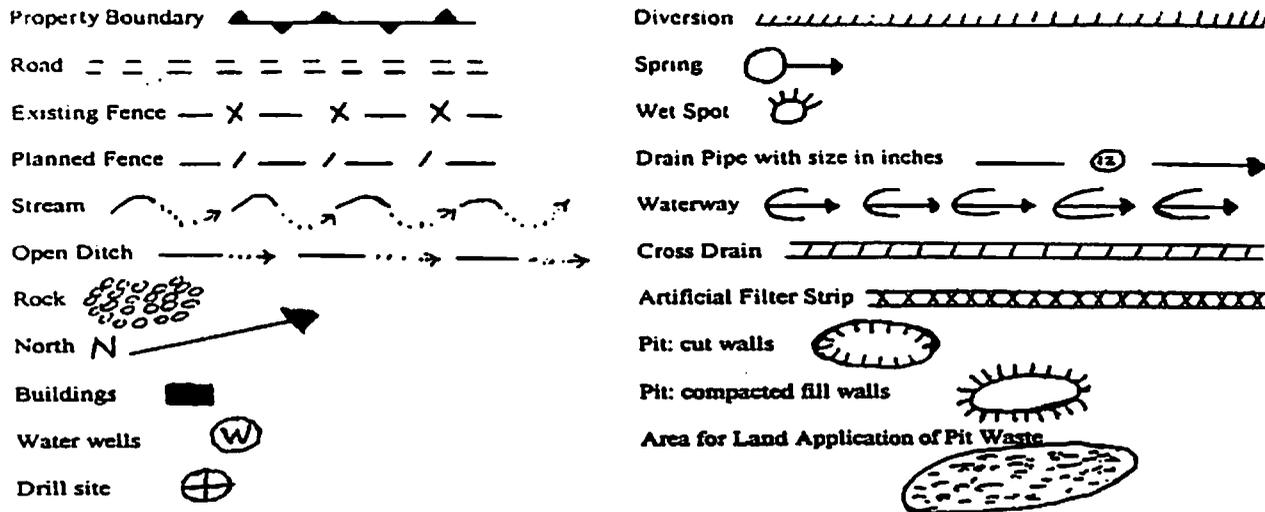
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Attachment #1

API #: 47-043-00171
 Operator's Well No. 804626 P&A

LEGEND



Proposed Revegetation Treatment: Acres Disturbed 1.0 Prevegetation pH 6.1

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/3 TON lbs/acre (500 lbs minimum)

Mulch Hay 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	ORCHARD GRASS	15
ALSIKE CLOVER	5	ALSIKE CLOVER	5
ANNUAL RYE	15		

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Raepl. D. Tripodi

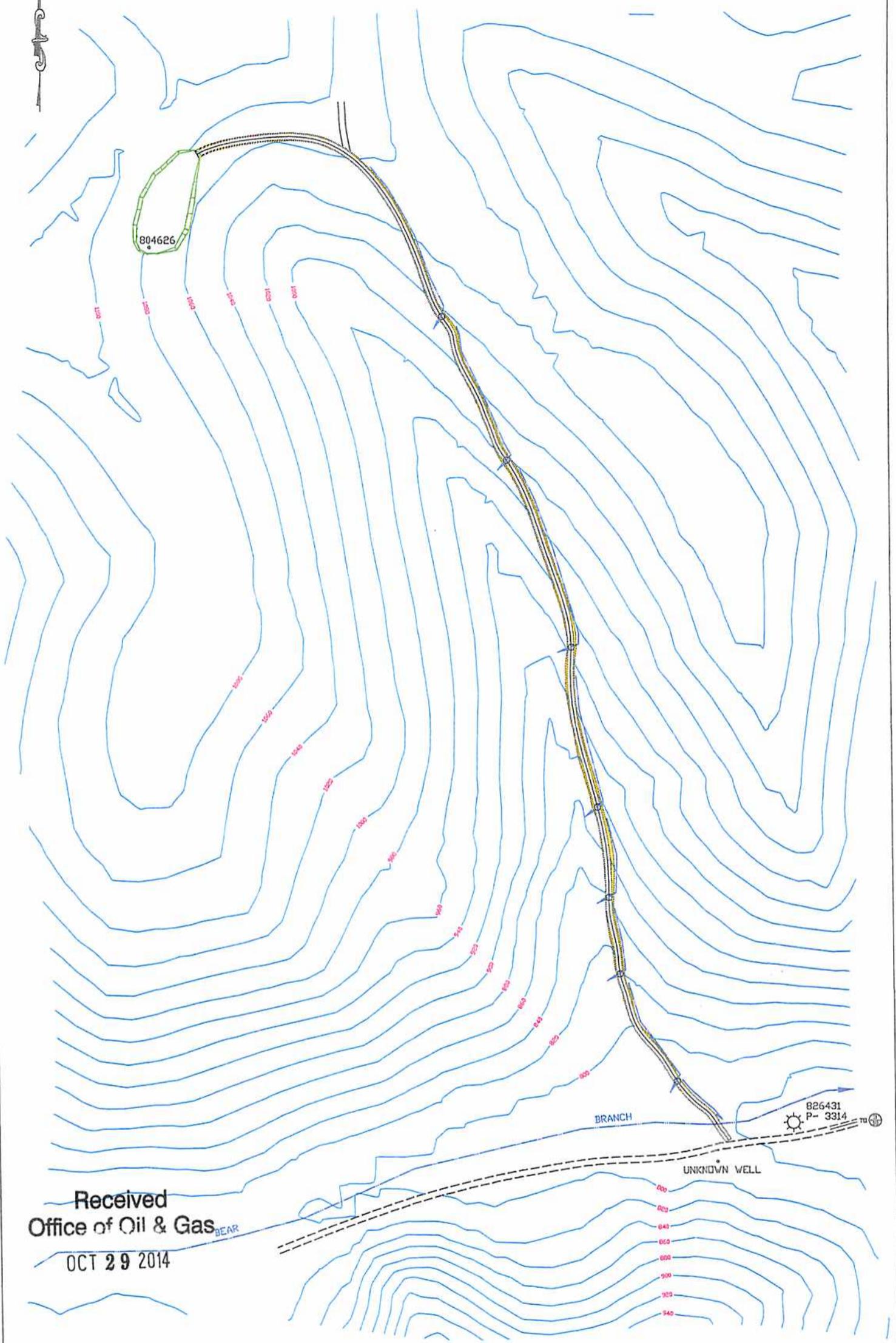
Title: District Inspector

Date: October 22, 2014

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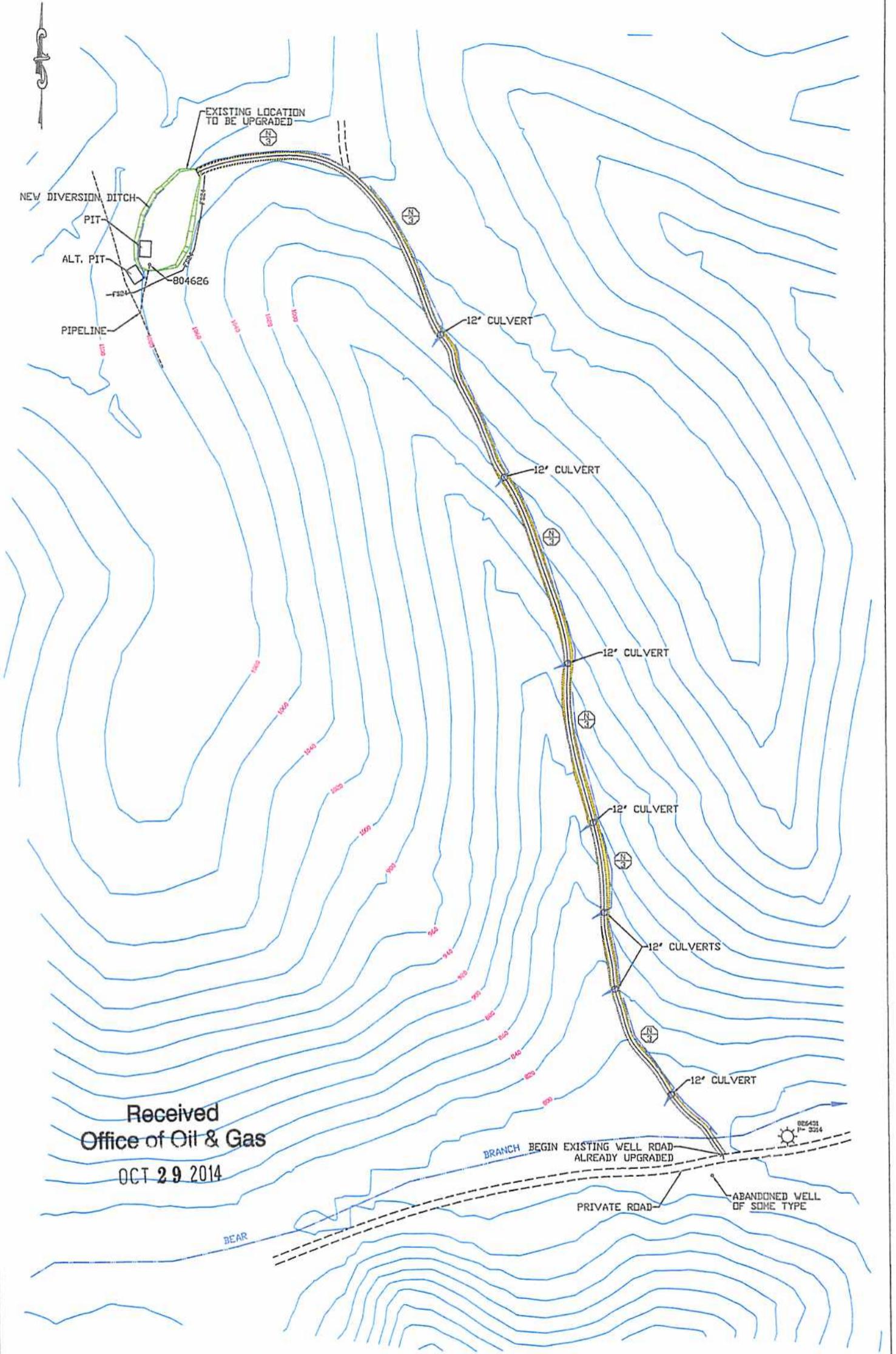
Field Reviewed? Yes No

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DISTURBED AREAS		LEGEND		SITE PLAN	
EXISTING WELL PAD	0.41 AC.		STREAM	CHESAPEAKE APPALACHIA, L.L.C. <i>PFA</i>	
EXISTING ACCESS ROAD	0.57 AC.		PROPERTY LINE	PROPOSED WORKOVER OF WELL 804626	
ADDITIONAL CLEARING			SLOPE AREA	DUVAL DISTRICT, LINCOLN COUNTY	
			WETLAND	GRIFFITHSVILLE QUAD, WV 7.5'	
TOTAL DISTURBED AREA	0.98 AC		BUFFER AREA	JUNE 16, 2014	
				TRUE LINE SURVEYING	
				6211 FAIRVIEW DR.	
				HUNTINGTON, WV 25705	
				PAGE 1 OF 1	



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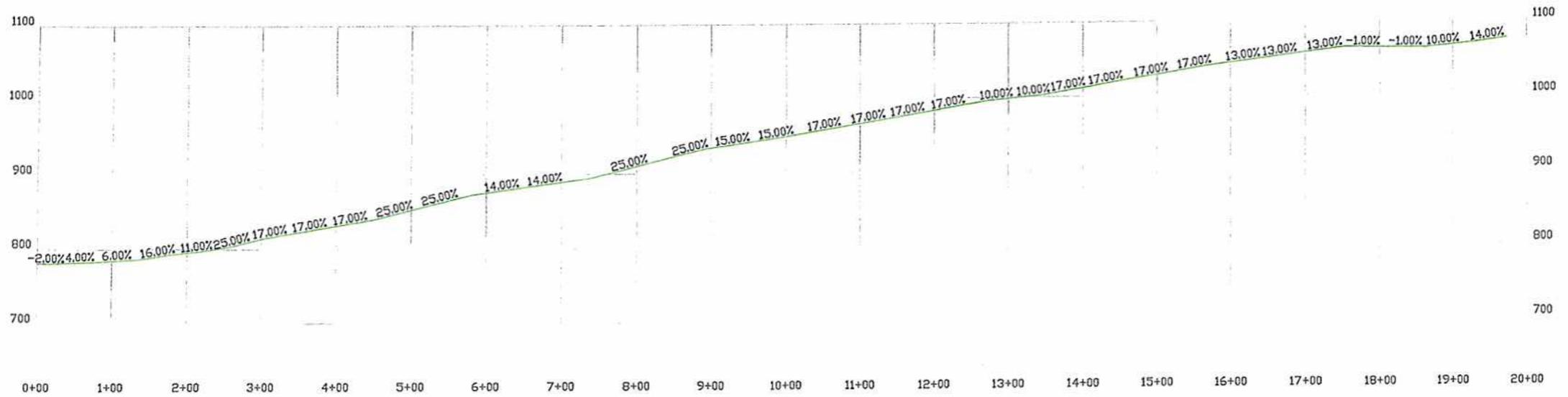
LEGEND

	PROVIDE FLEXTERRA HIGH PERFORMANACE FLEXABLE GROWTH MEDIUM (HP-FLM) ON CUT AND FILL SLOPES		STREAM
	LEVEL SPREADER		PROPERTY LINE
	DIVERSION DITCH		SLOPE AREA
	BERM OUTLET		WETLAND
			24" COMPOST FILTER SOCK AS REQUIRED

EROSION AND SEDIMENT CONTROL PLAN

CHESAPEAKE APPALACHIA, L.L.C. PYA PROPOSED WORKOVER OF WELL # 804626
DUVAL DISTRICT, LINCOLN COUNTY GRIFFITHSVILLE QUAD, WV 7.5'
JUNE 15, 2014
TRUE LINE SURVEYING 6211 FAIRVIEW DR. HUNTINGTON, WV 25705
PAGE 1 OF 1

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ROAD PROFILE
CHESAPEAKE APPALACHIA, L.L.C. <i>RA</i> PROPOSED WORK OVER OF WELL 804626
DUVAL DISTRICT, LINCOLN COUNTY GRIFFITHSVILLE QUAD, WV 7.5'
JUNE 16, 2014
TRUE LINE SURVEYING 6211 FAIRVIEW DR. HUNTINGTON, WV 25705 
PAGE <u>1</u> OF <u>1</u>

Well 804626 P+H

API 47-043-00171P



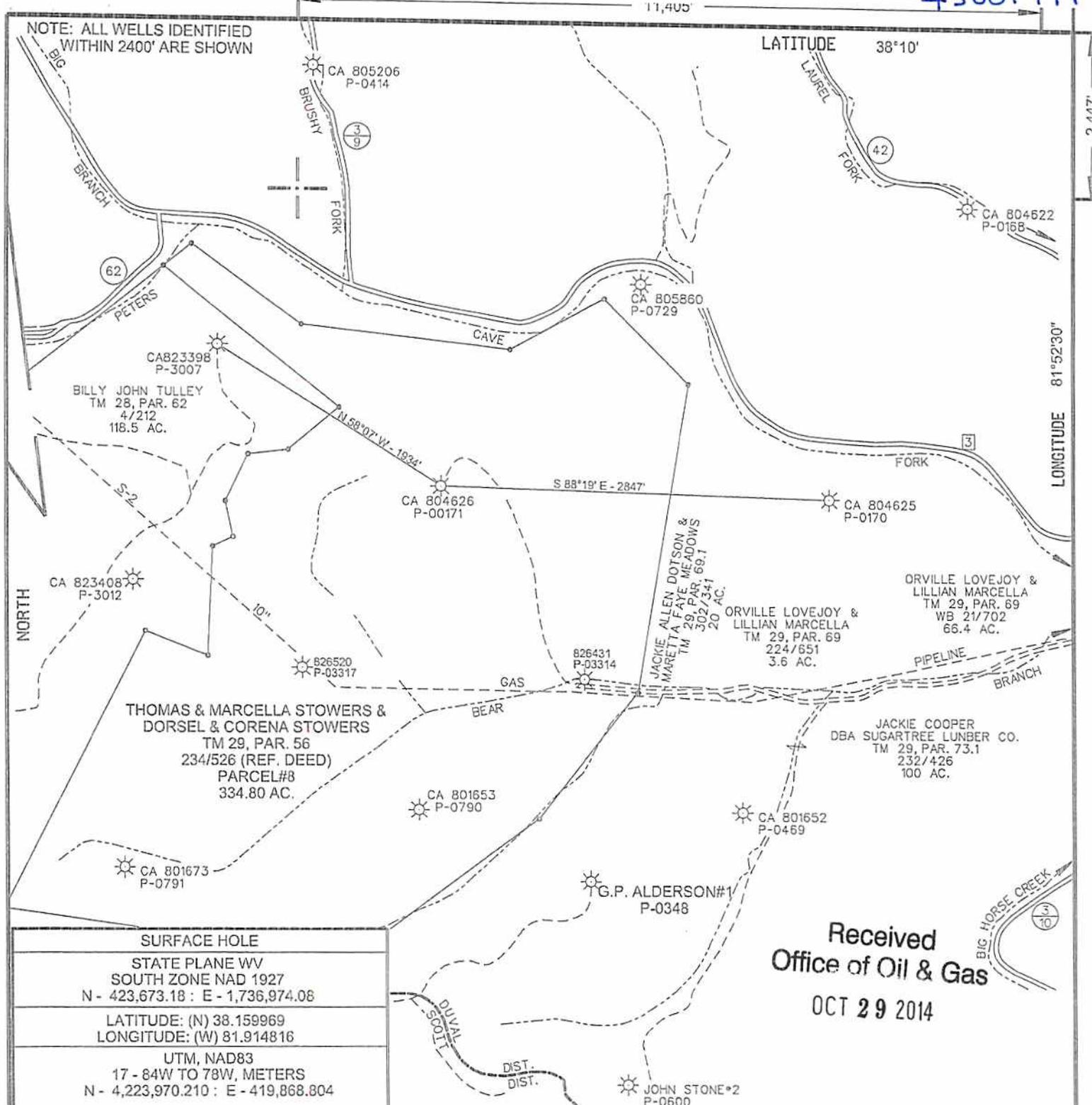
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43001719

11,405'

2,447'

NOTE: ALL WELLS IDENTIFIED WITHIN 2400' ARE SHOWN



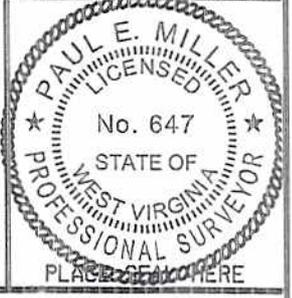
SURFACE HOLE	
STATE PLANE WV SOUTH ZONE NAD 1927 N - 423,673.18 : E - 1,736,974.08	
LATITUDE: (N) 38.159969 LONGITUDE: (W) 81.914816	
UTM, NAD83 17 - 84W TO 78W, METERS N - 4,223,970.210 : E - 419,868.804	

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(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. CA804626WO.DGN
 DRAWING NO. CA 804626 WO
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION MAPPING GRADE 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) *Paul E. Miller*
 R.P.E. _____ L.L.S. _____ 647



STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OIL AND GAS DIVISION

DATE MAY 19, 2014
 OPERATOR'S WELL NO. 804626
 API WELL NO. 47 043 00171 P
 STATE 47 COUNTY 043 PERMIT 00171 P

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
 (IF 'GAS,') PRODUCTION X STORAGE DEEP SHALLOW X

LOCATION: ELEVATION 1087' WATER SHED BEAR BRANCH OF PETERS CAVE FORK
 DISTRICT DUVAL COUNTY LINCOLN
 QUADRANGLE GRIFFITHSVILLE, WV 7.5'

SURFACE OWNER THOMAS & MARCELLA STOWERS - DORSEL & CORENA STOWERS ACREAGE 332.22
 OIL & GAS ROYALTY OWNER HORSE CREEK LAND & MINING CO. LEASE ACREAGE 10.265
 LEASE NO. 1-004976-000

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) WORK OVER P&A

PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION _____ ESTIMATED DEPTH _____
 WELL OPERATOR CHESAPEAKE APPALACHIA, L.L.C. DESIGNATED AGENT ERIC B. GILLISPIE
 ADDRESS PO BOX 18496, OKLAHOMA CITY, OK 73154-0496 ADDRESS P.O. BOX 6070, CHARLESTON, WV 25362

FORM WV-6

COUNTY NAME

PERMIT