

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

August 14, 2014

WELL WORK PERMIT Re-Work

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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

James Martin

Chief

Operator's Well No: 804626

Farm Name: STOWERS, BUSTER & OLLIE

API Well Number: 47-4300171 Permit Type: Re-Work

Date Issued: 08/14/2014

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. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 2. Pursuant to 35 CSR § 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
- 3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring within one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
- 4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 5. 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.
- 6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
- 7. Well work activities shall not constitute a hazard to the safety of persons.
- 8. Treated pit fluids shall not be applied to the adjacent surface property of Stacey and Lori Bokey per the modified reclamation plan.

API Well Number: 047 - 043 - 00171

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF OIL AND GAS WELL WORK PERMIT APPLICATION 255

Well Operator CHESAPEAKE APPALACHIA, L.L.C. 494477557 Lincoln Duval Griffithsville, WV 7.5'

Operator ID County District Quadrangle

2) Operators Well Number: 804626 WO 3) Elevation: 1087'

4) Well type: (a) Oil ___ or Gas_X

(b) If Gas: Production X Underground Storage ____ Deep___ Shallow X

5) Proposed Target Formation(s): <u>Injun/Big Lime</u> Proposed Target Depth: <u>1715' – 1945'</u>

6) Proposed Total Depth: 2050' Formation at proposed Total Depth: Slate and Shells

7) Approximate fresh water strata depths: 180', 220'

8) Approximate salt water depths: 960'

9) Approximate coal seam depths: 95', 260', 280', 489'

10) Approximate void depths, (coal, Karst, other): None known

11) Does land contain coal seams tributary to active mine? No

12) Proposed Well Work: See Attached Well Workover Procedure

13) <u>CASING AND TUBING PROGRAM</u>

TYPE		SPECIFICATIO	NS	FOOTAGE IN	TERVALS	CEMENT
	SIZE	GRADE	WEIGHT PER FT.	FOR DRILLING	LEFT IN WELL	FILL-UP (CU.FT.)
Conductor						
Fresh Water						
Coal	8 1/4"			536	536	Existing Casing
Intermediate	6 5/8"		20	1733	1733	Existing Casing
Production	3"				2440	Existing Casing to be pulled
Production	4 1/2"	М	9.5		2050	65
Tubing	2 3/8"	J	4.6	AS	NEEDED	

PACKERS: Kind Hookwall

Sizes 4 1/2" x 6 1/4"

Depths set Approximately 2050'

RDT 0407/14

Office of Oil and Gas
JUL 0 8 2014

WV Department of Environmental Protection 5/15/2014

API: 47-043-00171 W

804626 Workover Procedure

- Safety first! Hold PJSA before all jobs.
- 2) Prepare road and location, MIRU Service Rig
- 3) Pull 3 ½" tubing and packer. NOTE: If packer will not pull, cut 3 ½" at free-point (approximately 2100') and pull.
- 4) Run open hole logs and evaluate Injun & Big Lime to be sure project is economic
- 5) Run 4 ½" casing to approximately 2100' and cement (Fill up should be from the 4 ½" casing shoe to approximately 1525'). WOC
- 6) Run CBL, swab & perforate
- 7) Stimulate zone or zones as determined from OHL evaluation
- 8) Flow back well starting with 3/8" choke and increasing size as needed
- 9) Finish clean up, check TD, record FOF & FRP
- 10) Reclaim and TIL

RPT 1/11/14

Office of Oil and Gas

JUL 0 8 2014

WV Department of Environmest of 2014

WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION

Well 804626 WO API 47-043-0017/W

WELL RECORD

Permit No. Lin-171

Oil or Gas Well. Gas

			(K)	nd)
Company UNITED FUEL GAS COMPANY Address CHARLESTON, W. VA.	Casing and Tubing	Used in Drilling	Left in Well	Packers
Farm Horse Creek Land & Mining Co. Acres 11,324	Size			
Well No. 4626 Elev. 1050'	16			Kind of Packer
District Duyal County Lincoln	13			Hook Wall
The surface of tract is owned in fee by	10			Size of
Address	81/4	53618"	536'8"	3 x 6-5/8"
Mineral rights are owned by	6 5/8	1733'4"	1733'4"	Depth set
Address	5 3/16			
Drilling commenced July 16, 1936	3		244019"	Perf. top
Drilling completed October 15, 1936	2			Perf. bottom
Date shot October 8, 1936 Depth of shot	Liners Used		.,	Perf. top
Open Flow 10 /10ths Water in 2 Inch	***************************************			Perf. bottom
5. /10ths Merc. in 2. Inch	-			
Volume	CASING CEN	MENTED	SIZE	No. FTDate
Rock Pressure 300# Berea lbs. hrs.		***************************************		***************************************
Oilbbls., 1st 24 hrs.				FEET 36" INCHES
Fresh water 180 feet 230 feet				FEET 48 INCHES
Salt water 960 feet feet	489 FEE	T 48 IN	CHES	FEETINCHES

Formation	Color	Hard or Soft	Тор	Bottom	Oil Gas or Water	Depth Found	Remarks
la ÿ			0	16			
Late			16	40			
and			40	90			
Late			90	95			
pal			95	98		1	
Late			98	105	Television III	1	
and			105	235	Water	180'	
Late			235	260	Water	2301	
oal			260	263		1 111	
late			263	280			
oal			280	284			
late		2	284	320		1	
and			320	465	1 1		
late			465	477	1 1	1	
ime			477	489			
oal			489	493	· 1		
late			493	527			
ime			527	590			
and			590	630			
late			630	748			
and			748	785	1 1		
late & Lime			785	823			
ime			823	833	1 1		
late			833	853	The second		
alt Sand			853	1019	Water	9601	
late			1019	1050	ma det		
alt Sand			1050	1080			EIVED Oil and Gas
late			1080	1124		1	-WED are
alt Sand			1124	1252		aEQ	Elvand Gas
late			1252	1307		0,4	Oil air
alt Sand			1307	1335		Office	L 0 82014
late Shells			1335	1345		0	U85014
alt Sand			1345	1390		7/7	10 %
hite Slate			1390	1395			antiment atio
alt Sand			1395	1530	1.0	1/100	DOMONTO (APPROPRIE
ed Rock			1530	1555		100	mental
late & Shells			1555	1625		Enviro	nmental 20 8 2011
axon Sand			1625	1666			
lack Slate							
rack prace			1666	1670		1	

Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depth Found	Remarks
Little Lime Pencil Cave Big Lime Red Injun Sand Slate & Shells Lime Shell			1670 1709 1714 1925 1946 2355	1709 1714 1925 1946 2355 2367		Well	804626W0 47-043-0017
Slate Brown Shale Berea Grit Slate Lime Slate Lime Slate & Shells			2367 2390 2405 2435 2435 2460 2666 2686	2390 2405 2430 2435 2460 2666 2686 3175	Gas Gas Gas	2409-2414 2414-2415	15/10 W 2"184 M 13/10 W 2"169 M 15/10 W 2"184 M
Sandy Shell Slate Shell Slate Shell Brown Shale White Slate Brown Shale C. Lime Total depth			3175 3185 3340 3352 3398 3570 3985 4334 4561	3185 3340 3352 3398 3570 3985 4334 4561 4566 4566	Gas Gas Gas Gas	3352-3358 3398 3570-3576 3928-3938	16/10 W 2"190 M 18/10 W 2"202 M 21/10 W 2"218 M 20/10 W 2"213 M 33/10 W 2"274 M
		×	40				
						nE(EIVED Gas Oil and Gas
		2				Office o	Oil ail D. 0 8 2014 D. 0 8 20

WW2-A (Rev. 6-07) 1) Date: June 23, 2014

Operator's Well Number 804626 WO State County Permit CK#516 5460

3) API Well Number 47 - 043 - 00171

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface owner(s) to be served:

Name: Thomas Stowers (a) Address: 114 Morton Drive Hamlin, WV 25523 5) (a) Coal Operator:

Name: Robin Land Company, LLC Address: 500 Lee Street East, Suite 900 Charleston, WV 25301

(b) Name: Dorsel Stowers Address 8126 Straight Fork Hamlin, WV 25523 b) Coal Owner(s) with Declaration: Name: Horse Creek Coal Land Address: 300 Capitol Street, Suite 1503 Charleston, WV 25301

Name: Address: Name: Address:

6) Inspector:

Name: Ralph Triplett

Address: 5539 McClellan Highway

Branchland, WV 25506

Telephone: 304-389-0350

Coal Lessee with Declaration:

Robin Land Company, LLC Address: 500 Lee Street East, Suite 900 Charleston, WV 25301

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

	Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas
<u>OR</u>	Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application a location plat, and accompanying documents pages 1 though _____ on the above named parties, by:

Personal Service (Affidavit attached)

Certified Mail (Postmarked postal receipt attached)

Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

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.

ALACHIA, L.L.C. Well Operator: By:

It's

Manager - Operations, Appalachia South

Address: P.O. Box 18496

Oklahoma City, OK 73154-0496

Telephone:

405-935-4073

Subscribed and sworn before me this

Oil and Gas Privacy Notice

day of June 2014

Notary Public,

My Commission expires

September 16, 2018

The office of Oil and Gas processes your personal information, such as name, address and phone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal gourse of business or as needed to comply with statutory or regulatory requirements, including Free of Information Act requests. Our office will appropriately secure your personal information. If you have questions about our use of your personal information, please contact DESS Only Privacy Officer at depprivacyofficer@wv.gov.

08/15/2014

Well 804626 WO APT 47-043-00518W





6644

3460

ru

701





RECEIVED
Office of Oil and Gas

JUL 0 8 2014

WV Department of Environmental Protection

08/15/2014

Operator's Well Number: 804626 WO API Well Number: 47 – 043 – 00171

West Virginia Department of Environmental Protection Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

Be advised, you have the right to sample and analyze any water supply at your own expense.

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

Sampling Contra		
Well Operator _	CHESAPEAKE APPALACHIA, L.L.C.	
Address	P.O. Box 18496	
	Oklahoma City, OK 73154-0496	
Telephone	405-935-4073	

FOR OPERATORS USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underlining which one you have selected to sample and analyze. If there are not water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from proposed site.

RECEIVED
Office of Oil and Gas

JUL 0 8 2014

WV Department of Environmental Protection

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County: Lincoln

Operator's Well Number: 804626

Operator: Chesapeake Appalachia, L.L.C.

API Well Number: 47 - 043 - 00171

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by Code 22-6-16, 16, or 17, must be filed with the chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450 extension 1654

WAIVER

well location has area of well locat no objection to the	examined this proposed to the well location has need to be one	/ owner/ lessee/ of the coal under this well location. If a mine map exists which covers the been added to the mine map. The undersigned has done at this location, provided the well operator has as of the West Virginia Code and the governing
		·
FOR EXECUTION BY	A NATURAL PERSON	FOR EXECUTION BY A CORPORATION, ETC.
Signature	Received	By Thewistagel
	Hece! 1 4 2014	Signature Date

Office of Oil and Gas

WV Dept. of Environmental Protection

Operator's Well Number: 804626 WO API Well Number: 47-043-00171

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6, Section 8 (d) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that--

- the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for leases(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	<u>Royalty</u>	Book/Page
South Penn Oil Company	Horse Creek Land & Mining Co.	1/8	40 / 1

Acknowledge of Possible Permitting/Approval In addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP. Office of Oil and Gas, including but not limited to the following:

- *WV Division of Water and Waste Management
- *WV Division of Natural Resources
- *WV Division of Highways
- *U.S. Army Corps of Engineers
- *U.S. Fish and Wildlife Services
- *County Floodplain coordinator

The applicant further acknowledges that any Office of Oil and gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

RECEIVED

Well Operator:

Chesapeake Appalachia, L.L. (C4) 0 8 2014

By:

David Gocke

Its:

Manager – Operations, Appalachia South Protection Environmental Protection

office of Oil and Gas

08/15/2014

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

Operator NameC	HESAPEAKE APPALACHIA, L.L.C.	OP Code4	194477557	
Water (HUC 10) Bear B	Branchl of Peters Cave Fork	Quadrangle Griffill	nsville, WV 7.5'	
Elevation: 1087'	County: Lincoln	District: Duval '		
Description of anticipate	d using more than 5,000 bbls of water	r to complete the propos	ed well work: Yes _	_ No _X
Will a pit be used for dril	l cuttings? Yes No <u>X</u>			
If so, please des Will a synthetic l	scribed anticipated pit waste: <u>Cemer</u> liner be used in the pit? Yes X No _	nt and Frac Water If so, what ml.? -6-	20 ML.	
	sal Method for treated Pit Wastes: Land Application Underground Injection (UIC Pe Reuse (at API Number Off Site Disposal (Supply form Other (Explain		on)	1
Will closed loop system	be used? No (Not Drilling)			
Drilling medium anticipal	ted for this well? Air, fresh water, oil	based, etc. None		
If oil based, wha	t type? Synthetic, petroleum, etc			
Additives to be used in d	Irilling medium?			
Drilling cuttings disposal	method? Leave in pit, landfill, remov	ved offsite, etc		
If left in pit and p	olan to solidify what medium will be us	sed? (Cement, lime, saw	/dust)	2
Landfill or offsite	name/permit number?			
issued on August 1, 200: understand that the prov permit and/or other appli I certify under pe this application form and responsible for obtaining	Name) <u>David Gocke</u> Manager – Operation	West Virginia Division of by law. Violations of any inforcement action. It is amined and am familiar is sed on my inquiry of those formation is true, accural, including the possibility ins, Appalachia South	Environmental Prote term or condition of the lerm or condition of the lerm or condition of the lerm or condition is e individuals immediate, and complete. I amount of fine or imprisonme	ection. I he general submitted on ately m aware that
My Commission expires	September 16, 2018	1 0		

Office of Oil and Gas

JUL 0 8 2014

WV DOBArtment of
Environment & 2014

Form W	√W-9
--------	------

Operator's Well Number: API Well Number:

804626 WO 47 – 043 - 00171 W

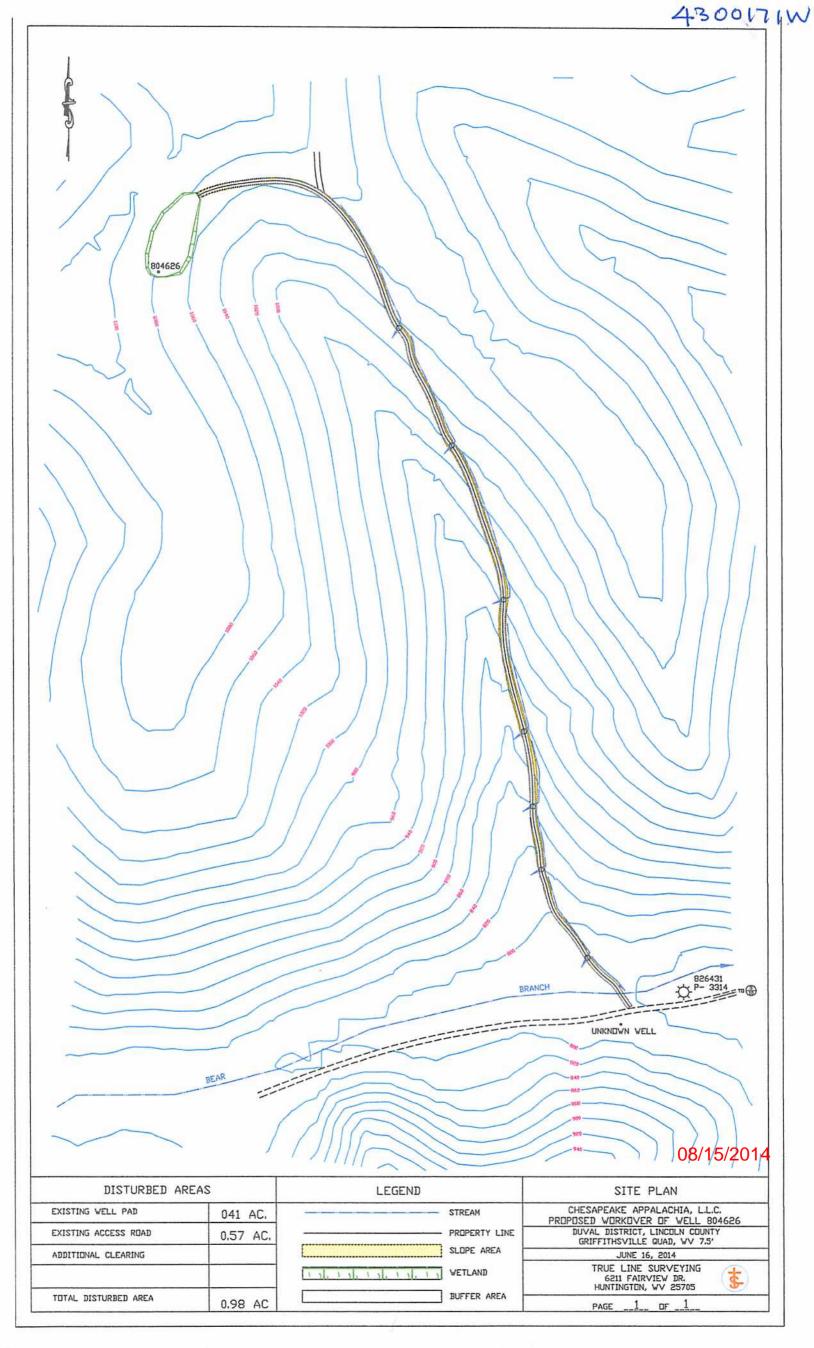
Lime3				
Fertilizer (10-20-20	or equivalent)500	bs/acre (500 lbs	minimum)	
Mulch Hay 2	Tons/acre			
		Seed Mixture	S	
Are Seed Type	ea I Ibs/acre		Seed Type	Area II Ibs/acre
KY 31	40		Orchard Grass	15
Alsike Clover	5	_	Alsike Clover	5
Annual Rye	15			
otocopied section of involv	pit and proposed area for yed 7.5' topographic sheet			
awing(s) of road, location,				
awing(s) of road, location, otocopied section of involven Approved:				
awing(s) of road, location, otocopied section of involven Approved:				
awing(s) of road, location, otocopied section of involven Approved:				
awing(s) of road, location, otocopied section of involven Approved:				
awing(s) of road, location, otocopied section of involven Approved:				
awing(s) of road, location, otocopied section of involven Approved : Royal mments:				

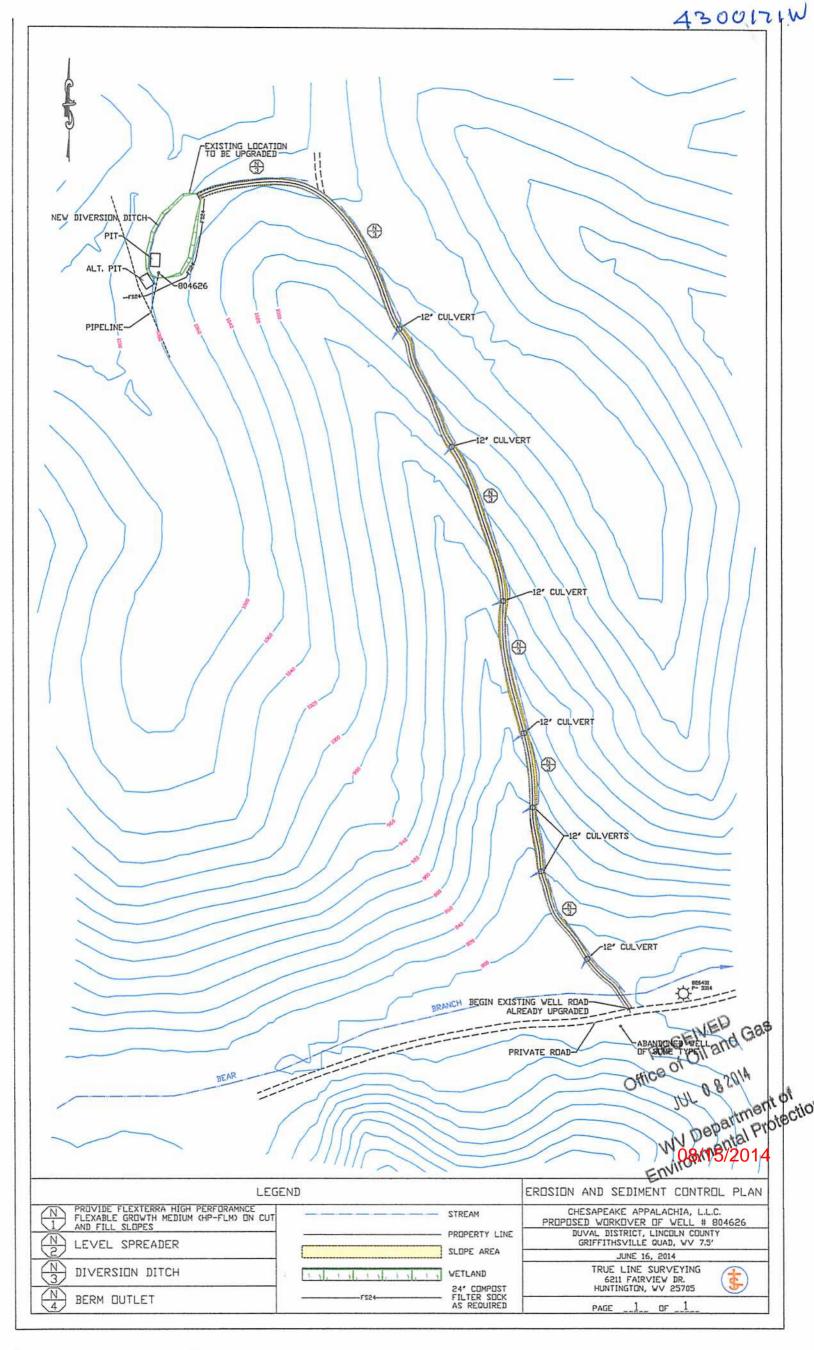
Office of Oil and Gas

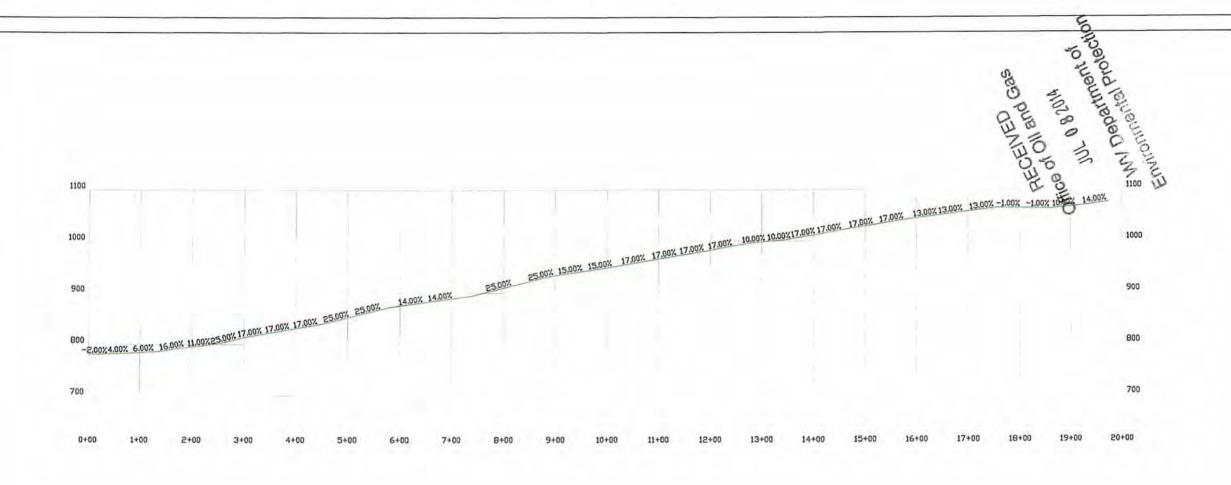
JUL 0 8 2014

WV Department of
Environment of 2014

Environment of 2014







ROAD PROFILE

CHESAPEAKE APPALACHIA, L.L.C.
PROPOSED WORKDVER OF WELL 804626

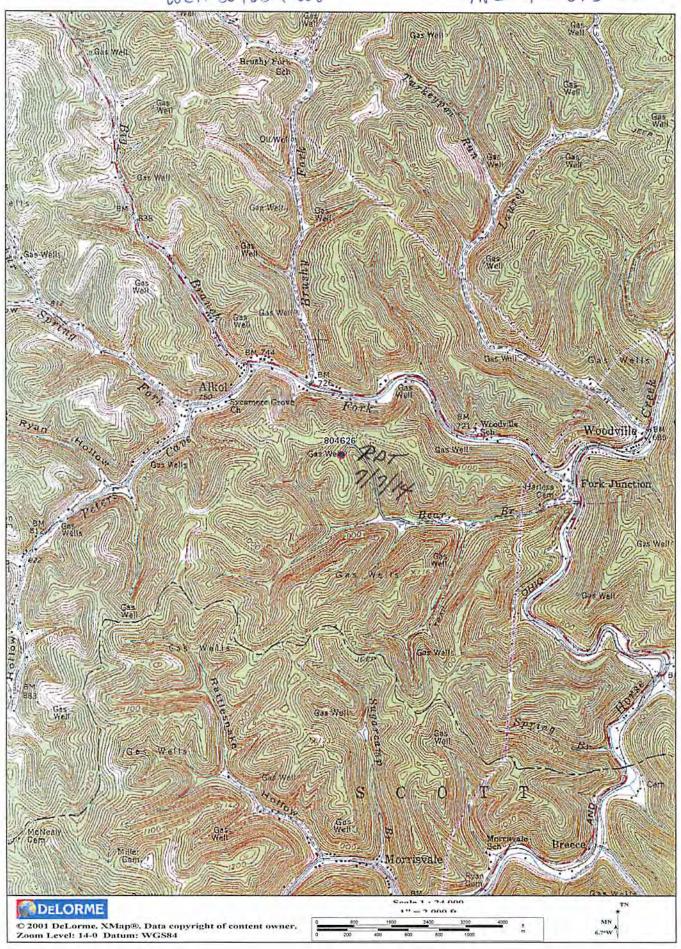
DUVAL DISTRICT, LINCOLN COUNTY
GRIFFITHSVILLE QUAD, WV 7.5'

JUNE 16, 2014

TRUE LINE SURVEYING 6211 FAIRVIEW DR. HUNTINGTON, VV 25705



PAGE __1_ DF _1



Office of Oil and Gas

Office of Oil and Gas

JUL 0 8 2014

Wood epartment of Protection

Environment of Protection

