



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

November 24, 2014

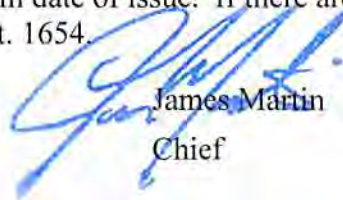
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-702415, 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: 625507
Farm Name: HALL, CHARLES & PAUL
API Well Number: 47-702415
Permit Type: Plugging
Date Issued: 11/24/2014

Promoting a healthy environment.

11/28/2014

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. 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.

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 1009' Watershed Plantation Fork
District Otter County Braxton Quadrangle Gassaway

6) Well Operator Chesapeake Appalachia, LLC 7) Designated Agent Jessica Greathouse
Address P.O. Box 1300 Address P.O. Box 6070
Jane Lew, WV 26378 Charleston, WV 25301

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Bryan Harris Name R & J Well Service
Address PO Box 157 Address P.O. Box 37
Volga, WV 26238 Hueysville, KY 41640

10) Work Order: The work order for the manner of plugging this well is as follows:
MIRU service rig & needed BOP equipment. NOTE: Blow down well to pit or tank. RIH with additional tubing and tag the permanent bridge plug located @ 1,900'. Load hole with 31 bbls of 6% gelled water or break surface with circulation. Pump 31 sks of Class A cement for 372' cement plug from the top of permanent bridge plug @ 1,900' and covering the open perforations (1,578' - 1,818'). Flush tubing with 8 bbls 6% gelled water. Top of plug to be -1,528'. TOOH + 300' with 2 3/8" tubing. SD & WOC for 8 hours.
RIH w/ sandline tools & tag plug @ 1,528'. Plug must be at 1,528' or higher; Add additional cement if needed. NO BOP & 'B' Section. Weld on 4 1/2" pull sub. RU casing jacks and remove slips.
Work casing for free point and ensure casing is free at or deeper than 1,280'. NU 'B' Section & BOP. RU Wireline and cut 4 1/2" 10.5# casing @ 1,280'. Pull and laydown casing. (Note TOC squeeze @ 1,380' per Cement Bond Log). TIH w/ 2 3/8" tubing to 1,330' (50' inside of 4 1/2" casing). Circulate hole w/ 54 bbls of 6% gelled water. Pump 20 sks of Class A cement for 120' elevation/casing snub plug (50' inside of 4 1/2" & 70' above casing stub), flush tubing with 6 bbls 6% gelled water TOOH + 300' with 2 3/8" tubing. SD & WOC for 8 hours.
TIH w/ 2 3/8" tubing & tag plug @ 1,210'. Plug must be at 1,210' or higher; Add additional cement if needed. TOOH w/ 2 3/8" tubing to 100' and pump 22 sks of Class A cement for 100' surface cement plug. TOOH w/ tubing. Top off well with required Class A cement as needed, nstall a 36 inch casing monument w/ 2" vent, install a Aluminum plat monument with ALL required WV dates and WV API number.

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

Work order approved by inspector Duane O'Hanin Date 10-2-14

DRIVING DIRECTIONS

Contact Field Personnel

SCOPE OF OPERATION

1. Safety is the highest priority. Control costs and avoid unnecessary expenditures.
2. TIH with 2-3/8" tubing to PBTD of 1,540'.
3. Pump required cement and gel plugs per WV DEP state requirements
4. Plant a well monument with WV State API number

PROCEDURE

1. **Contact the WV State Inspector 48 hours prior to operations.**
2. **Safety is the highest priority.** Hold wellsite safety meetings prior to each significant operation. Review critical parameters and objectives as well as emergency action plans.
3. MIRU construction equipment if necessary to repair road / location in order to get workover rig in. Remove any tanks, separators, well lines, meter runs, etc.
4. MIRU service rig & needed BOP equipment. **NOTE: Blow down well to pit or tank.**
5. RIH with additional tubing and tag the permanent bridge plug located @ 1,900'.
6. Load hole with 31 bbls of 6% gelled water or break surface with circulation.
7. Pump 31 sks of Class A cement for 372' cement plug from the top of permanent bridge plug @ 1,900' and covering the open perforations (1,578' - 1,818'). Flush tubing with 8 bbls 6% gelled water. Top of plug to be ~1,528'
8. TOOH \pm 300' with 2 3/8" tubing. **SD & WOC for 8 hours.**
9. RIH w/ sandline tools & tag plug @ 1,528'. Plug must be at 1,528' or higher; Add additional cement if needed.
10. ND BOP & 'B' Section. Weld on 4 1/2" pull sub. RU casing jacks and remove slips. Work casing for free point and ensure casing is free at or deeper than 1,280'.
11. NU 'B' Section & BOP. RU Wireline and cut 4 1/2" 10.5# casing @ 1,280'. Pull and laydown casing. (Note TOC squeeze @ 1,380' per Cement Bond Log)

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OCT 06 2014

OK gmc 11/28/14

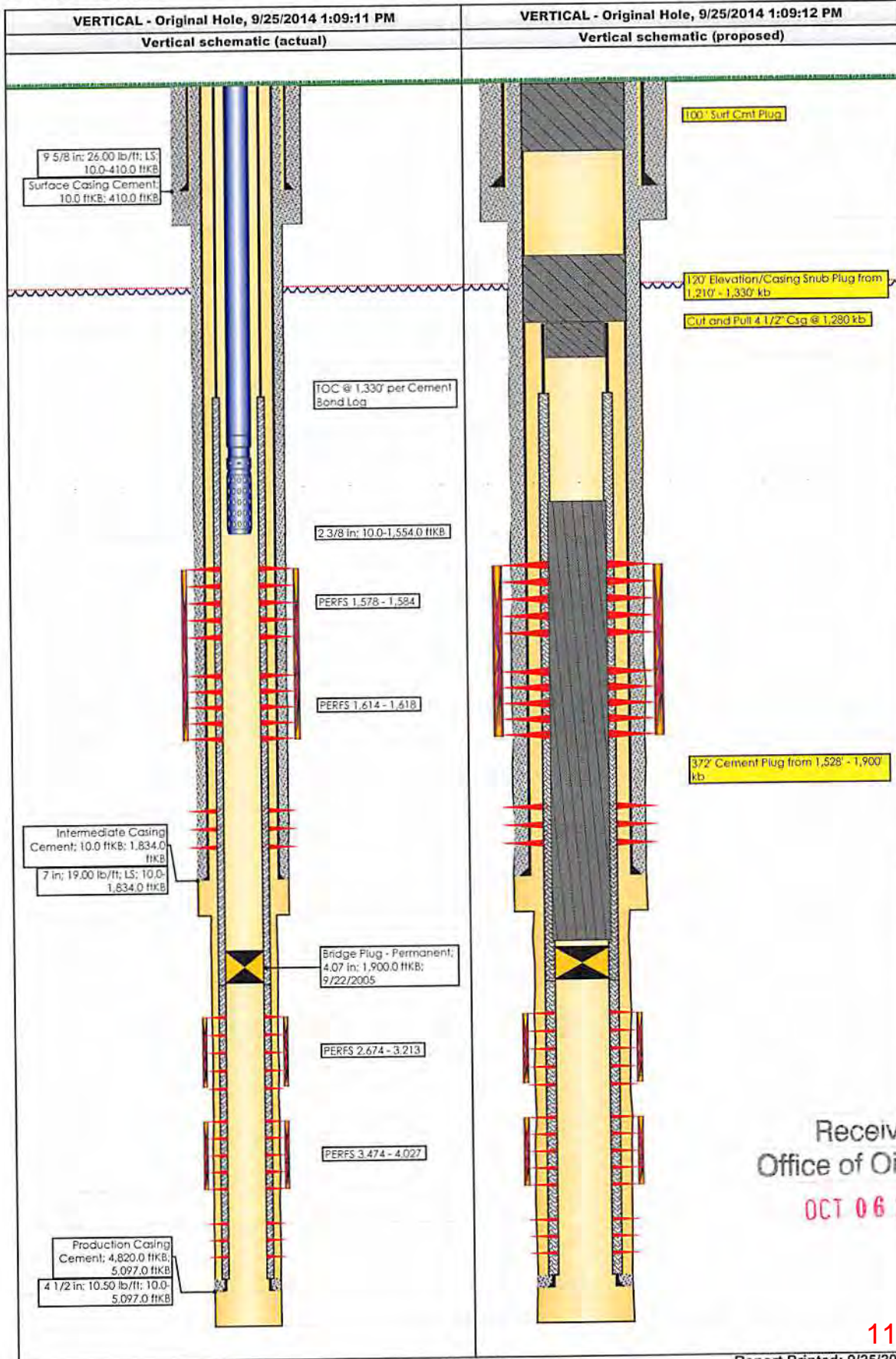
11/28/2014

12. TIH w/ 2 3/8" tubing to 1,330' (50' inside of 4 1/2" casing). Circulate hole w/ 54 bbls of 6% gelled water. Pump 20 sks of Class A cement for 120' elevation/casing snub plug (50' inside of 4 1/2" & 70' above casing stub), flush tubing with 6 bbls 6% gelled water.
13. TOOH \pm 300' with 2 3/8" tubing. **SD & WOC for 8 hours.**
14. TIH w/ 2 3/8" tubing & tag plug @ 1,210'. Plug must be at 1,210' or higher; Add additional cement if needed.
15. TOOH w/ 2 3/8" tubing to 100' and pump 22 sks of Class A cement for 100' surface cement plug, TOOH w/ tubing.
16. Top off well with required Class A cement as needed.
17. Install a 36 inch casing monument w/ 2" vent. Install a Aluminum plat monument with **ALL required WV dates and WV API number.**
18. **RDMO all service equipment providers and reclaim location to WV State requirements.**

Current Wellbore Schematic

WELL (PN): CHARLES & PAUL HALL 1 (625507)
 FIELD OFFICE: MARCELLUS SOUTH
 FIELD:
 STATE / COUNTY: WEST VIRGINIA / BRAXTON
 LOCATION: T/D OTTER, Q-GASSAWAY
 ROUTE:
 ELEVATION: GL: 1,260.0 KB: 1,270.0 KB Height: 10.0
 DEPTHS: TD: 5,165.0

API #: 4700702415
 Serial #: 2415
 SPUD DATE: 6/7/2005
 RIG RELEASE: 6/16/2005
 1ST SALES GAS:
 1ST SALES OIL:
 CURRENT STATUS: T/A



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 Office of Oil & Gas
 OCT 06 2014

11/28/2014

Current Wellbore Schematic

4700702415^P

WELL (PN): CHARLES & PAUL HALL 1 (625507)
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 1ST SALES OIL:
 CURRENT STATUS: T/A

VERTICAL - Original Hole, 8/7/2014 10:16:46 AM			Surface Casing; Set @ 410.0 ftKB ; Original Hole										
MD (ftKB)	TVD (ftKB)	Vertical schematic (actual)	Set Tension (kpsi)		Mud Weight		Cut Pull Date		Depth Cut Pull (ftKB)				
			Item Des	OD (in)	ID (in)	Drift (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	
9.6			Casing Joints	9 5/8			26.00	LS		10.0	410.0	400.00	
435.0			Intermediate Casing; Set @ 1,834.0 ftKB ; Original Hole										
1,525.9				Casing Joints	7			19.00	LS		10.0	1,834.0	1,824.00
1,526.9				Production Casing; Set @ 5,097.0 ftKB ; Original Hole									
1,554.1				Casing Joints	4 1/2	4.052		10.50			10.0	5,097.0	5,087.00
1,578.1				Description: Surface Casing Cement									
1,584.0				10.0-410.0 Top of Cement (ftKB): 10.0 Top Measurement Method: Returns to Surface									
1,613.8				Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)			
1,618.1				Description: Intermediate Casing Cement									
1,614.0				10.0-1,834.0 Top of Cement (ftKB): 10.0 Top Measurement Method: Returns to Surface									
1,617.9			Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)				
1,658.9			Description: Production Casing Cement										
1,809.9			4,820.0-5,097.0 Top of Cement (ftKB): 4,820.0 Top Measurement Method: Cement Bond Log										
1,801.9			Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)				
2,673.9			Description: Cement Squeeze										
3,212.0			1,920.0-4,820.0 Top of Cement (ftKB): 1,920.0 Top Measurement Method:										
3,474.1			Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)				
4,026.9			Description: Cement Squeeze										
4,314.0			1,380.0-1,920.0 Top of Cement (ftKB): 1,380.0 Top Measurement Method: Cement Bond Log										
4,321.9			Fluid	Pump Start Date	Amount (sacks)	Class	Dens (lb/gal)	Vol Pumped (bbl)	Yield (ft ³ /sack)				
5,165.0			Description: Cement Squeeze										
			1,900.0-1,902.0 ftKB; 4.07 in										
			7 in; 19.00 lb/ft; LS; 10.0-1,834.0 ftKB										
			Bridge Plug - Permanent; 1,900.0-1,902.0 ftKB; 4.07 in										
			4 1/2 in; 10.50 lb/ft; 10.0-5,097.0 ftKB										
			Tubing String: Tubing - Production										
			Set Depth (ftKB)	Wellbore	Run Date	Pull Date	Cut Pull Date	Depth Cut Pull (ft)					
			1,554.0	Original Hole	10/17/2005								
			Item Des	OD (in)	ID (in)	Drift (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Jts	
			Tubing	2 3/8					10.0	1,526.0	1,516.00	47	
			Seat Nipple	2 3/8					1,526.0	1,527.0	1.00		
			Perforated Joint	2 3/8					1,527.0	1,554.0	27.00		
			Perforations										
			Date	Zone	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Current Status					
			9/27/2005	MAXON UPR, Original Hole	1,578.0	1,584.0							
			9/27/2005	MAXON LWR, Original Hole	1,614.0	1,618.0							
			9/22/2005		1,814.0	1,818.0							
			8/5/2005	DEVONIAN SHALE UPR, Original Hole	2,674.0	3,213.0							
			8/5/2005	DEVONIAN SHALE LWR, Original Hole	3,474.0	4,027.0							
			7/21/2005		4,314.0	4,322.0							
			Stimulations & Treatments										
			MAXON LWR, Stage 3, Frac, 9/29/2005										
			Min Top Dep.	Max Btm De.	Total Clean	Avg Treat Fr.	Q Treat Avg	Post ISIP (psi)	Comment				
			1,578.0	1,618.0									
			DEVONIAN SHALE UPR, Stage 2, Foamed Acid Frac, 8/9/2005										
			Min Top Dep.	Max Btm De.	Total Clean	Avg Treat Fr.	Q Treat Avg	Post ISIP (psi)	Comment				
			2,674.0	3,213.0									
			DEVONIAN SHALE LWR, Stage 1, Foamed Acid Frac, 8/9/2005										
			Min Top Dep.	Max Btm De.	Total Clean	Avg Treat Fr.	Q Treat Avg	Post ISIP (psi)	Comment				
			3,474.0	4,027.0									

11/28/2014

WELL DATA

Location (Surface)	Lat. 38.698 Long. -80.8614
TD	5,165'

CASING AND TUBULAR DATA

STRING	SIZE	WEIGHT/GRADE	DEPTH
Intermediate	7"	19 lb/ft; LS	1,834'
Production	4 1/2"	10.5 lb/ft; J-55(assumed)	5,097'

PRESSURE AND DIMENSIONAL DATA

SIZE	WEIGHT	GRADE	BURST	COLLAPSE	DRIFT
7"	19	LS	Unknown	Unknown	Unknown
4 1/2"	10.5	J-55 (assumed)	4,790	4,010	3.927"
2 3/8"	4.7 (assumed)	J-55 (assumed)	7,700	8,100	1.901"

CAPACITIES

SIZE	WEIGHT	CAPACITY (FT ³ /FT.)	CAPACITY (BBL/FT.)
7"	19 lb/ft	0.2294 (calculated)	0.0409 (calculated)
4 1/2"	10.5 lb/ft	0.0895	0.0159
2 3/8"	4.7 lb/ft (assumed)	0.0216	0.0038

WELLHEAD EQUIPMENT

COMPONENT	SIZE & RATING
Manufacturer	?
Tubing Spool	?
Casing Spool	?
Bradenhead	?

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4700702415P

WR-35

DATE: 03/28/2005
API #: 47-007-02415

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: MOYERS Operator Well No.: 625509

LOCATION: Elevation: 1062 Quadrangle: GASSAWAY

District: OTTER County: Braxton
Latitude: 7850 Feet South of 38 Deg. 42 Min. 30 Sec.
Longitude 6200 Feet West of 80 Deg. 50 Min. 00 Sec.

Company: COLUMBIA NATURAL RESOURCES

	Casing & Tubing	Used in Drilling	Left in well	Cement fill up Cu. Ft.
Address: Rt 1, Box 107-10	13-3/8	25	25	N/A
Buckhannon, WV 26201	9-5/8	398	398	CTS
Agent: Carl F. Starr	7	1790	1790	CTS
Inspector: Craig Duckworth	4-1/2	5442	5442	235 SXS
Date Permit Issued: 03/28/05				
Date Well Work Commenced: 05/25/05				
Date Well Work Completed: 09/01/05				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Depth (feet): 5501				
Fresh Water depths (ft): 360				
Salt water depths (ft): None				
Is coal being mined in area (Y/N)? N				
Coal Depths (ft):				

OPEN FLOW DATA

Producing formation Devonian Shale/Siltstone Pay zone depth (ft) 2640-4601
 Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d
 ** Final open flow 698 MCF/d Final open flow N/A Bbl/d
 Time of open flow between initial and final tests N/A Hours
 ** Static rock Pressure 685 psig (surface pressure) after 72 Hours

Second producing formation Well Pay zone depth (ft) 2084-2135
 Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d
 ** Final open flow 698 MCF/d Final open flow N/A Bbl/d
 Time of open flow between initial and final tests N/A Hours
 ** Static rock Pressure 685 psig (surface pressure) after 72 Hours

** Comingled

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: COLUMBIA NATURAL RESOURCES
L.L.C.
By: [Signature]

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JAN 12 2006
WV Department of Environmental Protection

11/28/2014

State of West Virginia
Department of Energy
Division of Oil and Gas
Discharge Monitoring Report
Oil and Gas General Permit

4700702415P

Company Name: Columbia Natural Resources, LLC.

API: 47-007-02415 County: Braxton

District: Otter

Farm Name: Hall

Well No.: 625507

Discharge Date(s) From: (MMDDYY) 12-5-05

To: (MMDDYY)

1-4-06, 1-5-06, 1-9-06
4:30PM, 4:30PM, 3:30PM
1-10-06, 1-11-06

Discharge Times: From 12:30PM, 11:00AM, 9:00AM

To:

4:00PM, 2:00PM = 21 Hr
Total Discharge

Disposal Option Utilized: UIC (2): _____ Permit No. _____
Centralized Facility (5): _____ Permit No. _____
Reuse (4): _____ Alternate Permit Number: _____
Offsite Disposal (3): _____ Site Location: _____
Land Application (1): XX (Include a topographical map of the Area.)
Other method (6): _____ (Include an explanation)

Follow Instructions below to determine your treatment category.

Optional Pretreatment test: 10,000 Cl-mg/l 0 DO Mg/l

1. Do you have permission to use expedited treatment from the Director or his representatives? (Y/N) N If yes who? _____, and place a four(4) on line 7. If not go to line 2
2. Was Frac Fluid or flowback put into the pit? (Y/N) Y If yes go to line 5 if not go to line 3
3. Do you have a chloride value pretreatment (see above)? (Y/N) Y If yes go to line 4 if not go to line 5
4. Is that chloride level less than 5000 mg/l? (Y/N) N If yes then enter a one (1) on line 7
5. Do you have a pretreatment value for DO? (see above) (Y/N) Y If yes then go to line 6 if not enter a three (3) in line 7
6. Is that DO greater than 2.5 mg/l? (Y/N) N If yes then enter a two (2) on line 7 If not enter a Three (3) on line 7.

7. III Is the category of your pit. Use the appropriate section.

Name of Principle Exec. Officer Michael John
Title of Officer Vice President, Operations
Date Completed: January, 2006

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments 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 and imprisonment.

Signature of a Principle Exec. Officer or Authorized agent

Signature

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Office of Oil & Gas

DCT 06 2014
S.S. SERVICES
Rt. 71, Box 28B
Glennville, WV 26351

11/28/2014

Category I
Sampling Results
API NO. 47 - 007-02415

Parameter	Predischarge Limit	Reported	Discharge Limits	Reported	Units
PH	6-10	_____	6-10	_____	S.U.
Settling Time	5	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	.5	_____	.5	_____	mg/l
Cl	5000	_____	5000	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gals.
Flow		_____	Monitor	_____	Gals.
Disposal Area		_____	Monitor	_____	Acres

*** Al is only reported if the pH is above 9.0

Category 2
Sampling Results
API NO. 47 - 007-02415

Parameter	Limit	Predischarge Reported	Limits	Discharge Reported	Units
PH	6-10	_____	6-10	_____	S.U.
Settling Time	10	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	.5	_____	.5	_____	mg/l
Cl*	12,500	_____	.12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Al***		_____	Monitor	_____	mg/l
Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gals.
Flow		_____	Monitor	_____	Gals.
Disposal Area		_____	Monitor	_____	Acres

* Can be 25,000 with inspectors approval,
(Inspector) _____

** Include a description of your aeration technique.

*** Al is only reported if the pH is above 9.0

Date: _____

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 Page 3 of 3
 Category 3
 Sampling Results
 API NO: _____

47007024151

47-007-02415

Parameter	Predischarge		Discharge		Units
	Limit	Reported	Limits	Reported	
pH	6-10	4.5	6-10	9.00	S.U
Settling Time	20	37.025	N/A	N/A	Days
Cl*	12,500	10,000	12,500	3,790	mg/l
Oil	Trace	0	Trace	0	Obs.
TOC**			Monitor	104	mg/l
Al***			Monitor	0.14	mg/l
TSS			Monitor	43	mg/l
Mn	Monitor		Monitor	0.09	mg/l
Volume			Monitor	37,800	Gals.
Flow			Monitor	30	Gals/m
Grease and Oil			Monitor	ND	mg/l
Disposal Area			Monitor	2.5	Acres

* Can Be 25,000 with inspectors approval,
 (Inspector) _____ Date: _____

** Include a description of your aeration technique.

*** Al is only reported if the pH is above 9.0

Aeration Technique #51

Category 4
 Sampling Results
 API NO: _____

Parameter	Predischarge		Discharge		Units
	Limit	Reported	Limits	Reported	
pH	6-10		6-10		S.U
Settling Time	1		N/A	N/A	Days
Fe	Monitor		Monitor		mg/l
D.O.	Monitor		Monitor		mg/l
Settleable Spl.	Monitor		Monitor		mg/l
Cl*	12,500		12,500		mg/l
Oil	Trace		Trace		Obs.
TOC			Monitor		mg/l
TSS			Monitor		mg/l
Oil and Grease			Monitor		mg/l
Mn	Monitor		Monitor		mg/l
Volume			Monitor		Gals.
Flow			Monitor		Gals
Activated Carbon	175		N/A	N/A	lb/bl
Date Site Reclaimed	N/A	N/A			10 Days from Dis.
Disposal Area			Monitor		Acres

* Can Be 25,000 with inspectors approval,
 (Inspector) _____ Date: _____

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4700702415P



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

Joe Manchin III, Governor
Stephanie R. Timmermeyer, Cabinet Secretary
www.wvdep.org

November 30, 2006

FINAL INSPECTION REPORT

WELL PERMIT RELEASED

COLUMBIA NATURAL RESOURCES, LLC,

The FINAL INSPECTION REPORT for the permit, API Well Number: 47-702415, issued to COLUMBIA NATURAL RESOURCES, LLC, and listed below has been received in this office, and reclamation requirements approved. The well designated by the permit number below has been released under reclamation and will remain under your bond.

A handwritten signature in blue ink, appearing to read 'James Martin'.

JAMES MARTIN
Chief,
Office of Oil and Gas

Operator: COLUMBIA NATURAL RESOURCES, LLC
Operator's Well No: 625507
Farm Name: HALL, CHARLES & PAUL
API Well Number: 47-702415
Date Issued: 03/28/2005
Date Released: 11/30/2006

Promoting a healthy environment.

Received
Office of Oil & Gas

OCT 06 2014

11/28/2014

WW-4A
Revised 6-07

1) Date: September 25, 2014
2) Operator's Well Number
625507

3) API Well No.: 47 - 007 - 02415

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>Chad Van Buren</u> ✓	Name _____
Address <u>HC 84 Box 54-B</u>	Address _____
<u>Frametown, WV 26623</u>	_____
(b) Name <u>Charles and Burnice Hall</u> ✓	(b) Coal Owner(s) with Declaration
Address <u>HC 84 Box 53</u>	Name <u>See Attachment #1</u>
<u>Frametown, WV 26623</u>	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Bryan Harris</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 157</u>	Name _____
<u>Volga, WV 26238</u>	Address _____
Telephone <u>304-553-6087</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 Chesapeake Appalachia, LLC

By: Dee Southall

Its: Regulatory Analyst II

Address P.O. Box 1300

Jane Lew, wv 26378

Telephone 304-517-1416 EXT. 86024

Subscribed and sworn before me this 3rd day of October, 2014

Leanna Butcher Notary Public

My Commission Expires February 7, 2021

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.



Attachment #1

Coal

Chad Van Buren ✓
HC 84 Box 54-B
Frametown WV 26623-9619

Charles and Burnice Hall
HC 84 Box 53 ✓
Frametown WV 26623

Tonner Family Trust ✓
950 Knox McRae Drive
Titusville, FL 32780-6149

Claudia Maggard ✓
3384 Cameron Chase Drive
Tallahassee, FL 32317-2872

Donna Moore ✓
Box 1723
Blowing Rock, NV 28605-1723

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Restricted Delivery Fee		



Donna Moore
 Box 1723
 Blowing Rock, NV 28605

PS Form 3800, August 2006

See Reverse for Instructions

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Chad Van Buren
 HC 84 Box 54-B
 Frametown, WV 26623

PS Form 3800, August 2006

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Claudia Maggard
 3384 Cameron Chase Drive
 Tallahassee, FL 32317

PS Form 3800, August 2006

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4700
 02415P
 Tonner Family Trust
 950 Knox McRae Drive
 Titusville, FL 32780

PK
 5202287
 100007

See Reverse for Instructions

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Charles & Bernice Hall
 HC 84 Box 53
 Frametown, WV 26623

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11/28/2014

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, LLC OP Code 494477557

Watershed Plantation Fork Quadrangle Gassaway

Elevation 1009' County Braxton District Otter

Description of anticipated Pit Waste: Water from plugging process

Will a synthetic liner be used in the pit? yes

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 2D0072539/2D0413175/2D0610306/2D0610317)
- Reuse (at API Number at next anticipated well, API# will be included on the WR34/&or permit addendum)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain flowback will be put in steel tanks and reused or taken to permitted disposal facility)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain _____)
- Swabbing
- Plugging

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, 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) Dee Southall

Company Official Title Regulatory Analyst II

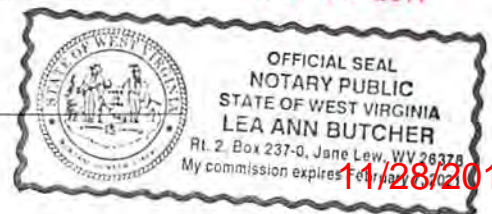
Subscribed and sworn before me this 3rd day of October, 2014

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OCT 06 2014

[Signature]

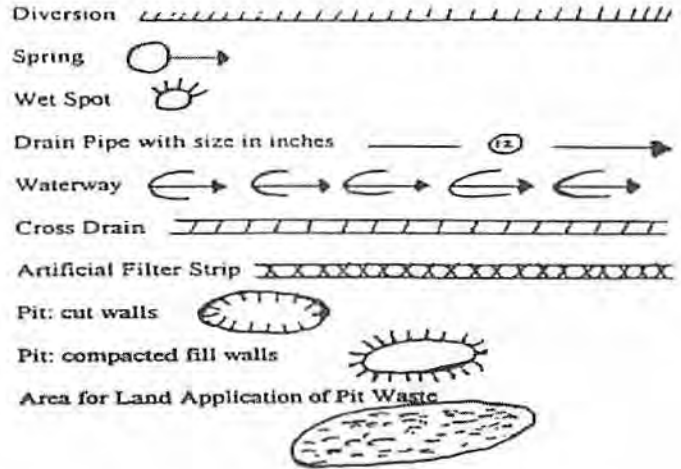
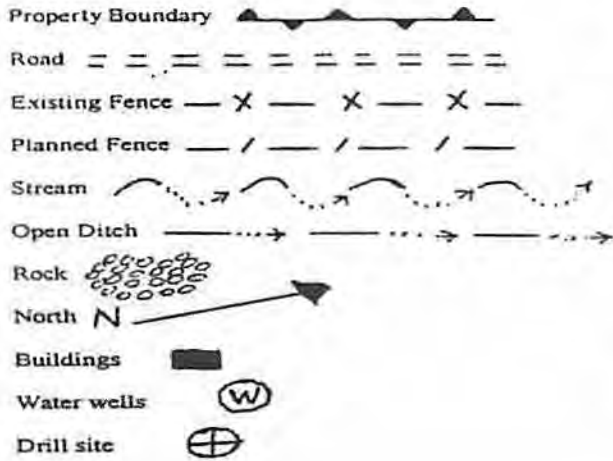
Notary Public

My commission expires February 7, 2021



11/28/2014

LEGEND



Proposed Revegetation Treatment: Acres Disturbed _____ Prevegetation pH _____

Lime ^{as determined by pH test min. 2} _____ Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) ⁵⁰⁰ _____ lbs/acre (500 lbs minimum)

Mulch ^{Hay/Straw} _____ Tons/acre

Seed Mixtures

Seed Type	Area I		Seed Type	Area II	
		lbs/acre			lbs/acre
Orchard Grass	20		Orchard Grass	20	
Red Top	15		Red Top	15	
White Clover	15		White Clover	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: Bryan O'Hara

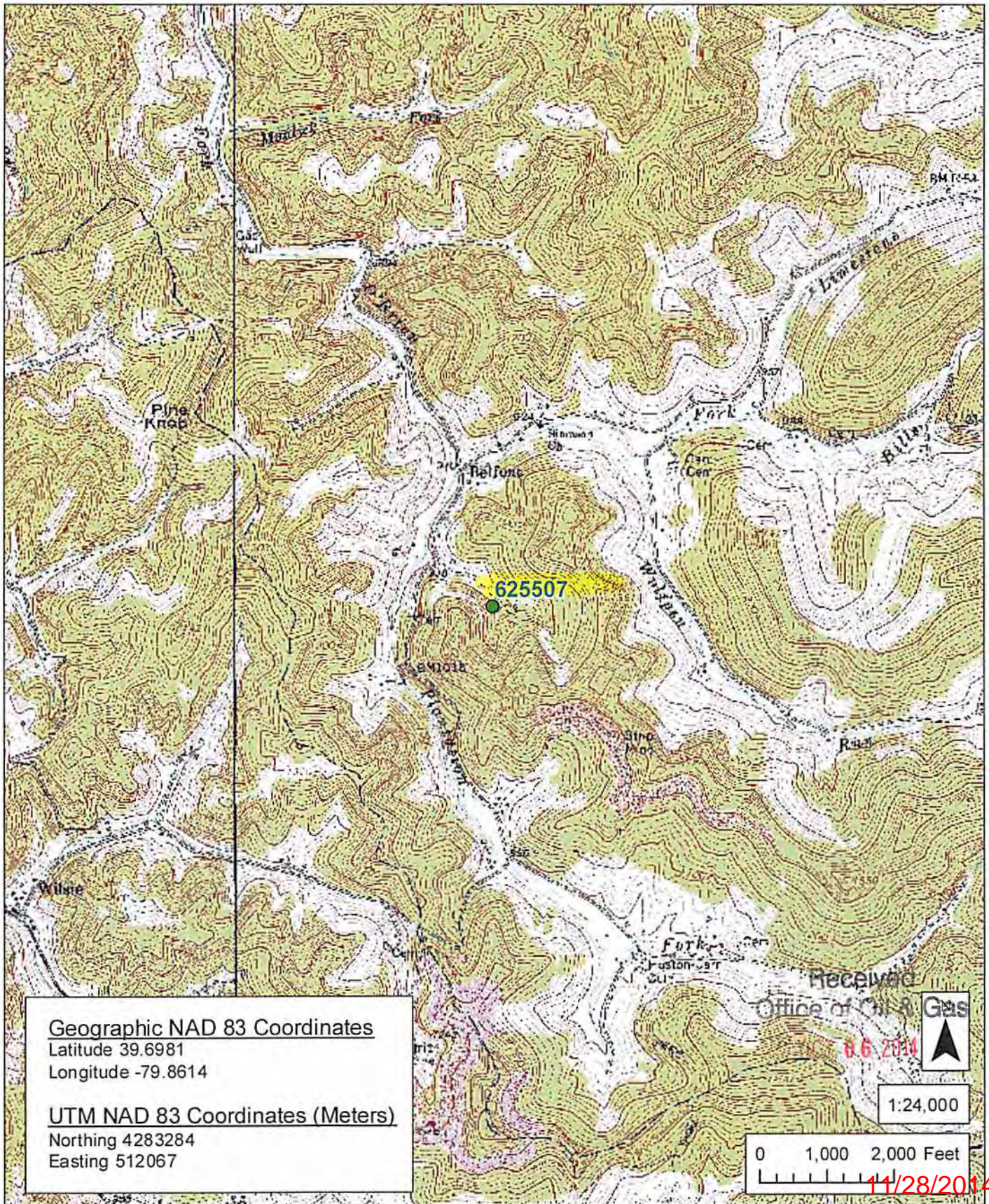
Comments: _____

Title: Oil and Gas Inspector Date: 10-2-14

Field Reviewed? () Yes (X) No

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OCT 06 2014

CHESAPEAKE APPALACHIA, L.L.C.
Topographical Map of Well 625507 (Charles and Paul Ha) 47-00702415 P
API = 47-07-02415
Field Office - Jane Lew
County - Braxton



8-30-06

WW-7

4700702415P



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

API:47-007-02415 WELL NO.: 625507

FARM NAME: Hall, Charles & Paul

RESPONSIBLE PARTY NAME: Chesapeake Appalachia, LLC

COUNTY: Braxton DISTRICT: Otter 3

QUADRANGLE: Gassaway 360

SURFACE OWNER: Chad Van Buren & Charles and Burnice Hall

ROYALTY OWNER: Donna Moore, Claudia Maggard, and Tonner Family trust

UTM GPS NORTHING: 4283284

UTM GPS EASTING: 512067

GPS ELEVATION: 1009'

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. Received

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 _____
Date 10/1/14

Office of Oil & Gas
Reg. Analyst II
11/28/2014

11/28/2014



4700702415P

Danielle Southall
Regulatory Analyst II

October 3, 2014

Mr. Jeff McLaughlin
WV Department of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

Re: Plugging Permit for well #625507

Dear Jeff:

Enclosed please find Plugging Permit Application for the above captioned well. This well is situated in Braxton County, West Virginia.

If you have any questions or require additional information, please do not hesitate to contact me at (304) 517-1416.

Sincerely,

Chesapeake Appalachia, LLC


Dee Southall

Enclosures

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