



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

April 01, 2014

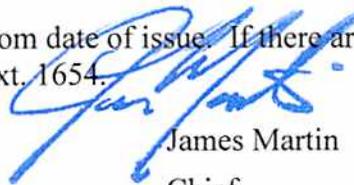
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-5101190, issued to CHEVRON APPALACHIA, LLC, 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: FRANCIS 1
Farm Name: FRANCIS, BARBARA
API Well Number: 47-5101190
Permit Type: Plugging
Date Issued: 04/01/2014

Promoting a healthy environment.



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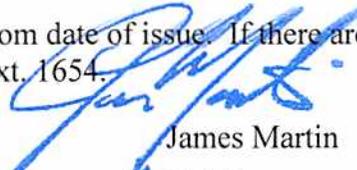
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PERMIT CONDITIONS

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.

510190P

WW-4B
Rev. 2/01

1) Date 1/28/2014, 20
2) Operator's
Well No. Francis 1
3) API Well No. 47-051 - 01190

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 1265 Watershed Bartletts Run
District Clay County Marshall Quadrangle Glen Easton

6) Well Operator Chevron Appalachia, LLC 7) Designated Agent
Address 800 Mountain View Drive Address
Smithfield, PA 15478

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Jim Nicholson Name Please see attached procedure
Address PO Box 44 Address
Moundsville, WV 26041

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

Please see attached "Plug & Abandon" Procedure

OK 2/10/14

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FEB 20 2014
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Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Date



Chevron Appalachian Michigan Business Unit

Francis 1V

Plug and Abandon Procedure
Expected Start Date: February 2013

1H	
WBS	UWSAP – A4000 - 001
API	47-051-01190

County	Marshall	State	West Virginia
WL / Tools Co.	SLB	Latitude	39° 52' 24.68" North
Cement Co.	SLB Cementing	Longitude	80° 41' 32.14" West

Objective:

Set a cement retainer to cement the perforations. This will be followed by removal of free pipe and setting cement plugs over water and coal zones to surface to complete the P&A.

Completion Design Review:

Listed below are the members of the well team who were in attendance and agreement with the completion procedure as discussed.

Created by:	Sean Wainwright – Completions Engineer	

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*Chevron is committed to providing a safe working environment for all personnel through the tenets we live by such as **Do it safely or not at all. Stop Work Authority** means all personnel not only have the right but the responsibility to stop any potentially unsafe job. **Report all injuries, no matter how minor, 24/7 to Axiom Medical at 1-877-502-9466.***

Directions:

From the intersection of SR 88 and SR 250 (near Limestone WV) follow SR 250 South for (8.0 mi.), make a right onto Fork Ridge Rd. (Co. Hwy 17), and follow for 7.2 miles to lease entrance on right.

- The Francis 1V has a shared lease entrance with Williams.
- The Francis Pad is 0.4 miles down the lease entrance on the right.

Site Specific Safety Precautions:

- See Picture below.

Casing Design:

SIZE	WEIGHT	DEPTH
9 5/8"	36.0#	2,491'
5.5"	20.0#	6,727'

Pressure and Dimensional Data:

SIZE	WEIGHT	GRADE	BURST	COLLAPSE
20"		Conductor		
13 3/8"	54.5#	K-55		
9 5/8"	36#	K-55	3,520	2,020
5 1/2"	20.0#	P-110	12,640	11,080
2 3/8"	4.7#	J-55	7,700	8,100

Capacities:

SIZE	WEIGHT	CAPACITY (BBL/FT.)
5 1/2"	20.0#	0.0222
2 3/8"	4.7#	0.0039
2 3/8"-5 1/2" annulus	n/a	0.0167
2 3/8"-9 5/8" annulus	n/a	0.0718
2 3/8"-8 1/2"OH	n/a	0.0689

Tbg Detail:

DESCRIPTION	ID	LENGTH	DEPTH
Tbg. Hanger		0.00'	0.00'
204 Joints	1.995"	6,464	6,464'
X Nipple	1.875"	1.05'	6,465'
1 Joint	1.995"	31.6'	6,496'
Pup	1.995"	8.00'	6,504'
Pup	1.995"	8.00'	
EOT (Pump off Bit Sub)			6,512'

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Cement Specifications:

- TOC between 5.5" and 8.75" open hole is expected to be at ~2,500' by CBL.

Formation Specifics:

<i>Coal Depth</i>		<i>Coal Name</i>	<i>Origin of Info</i>
800'	805'	Pittsburgh	Log
<i>Water Depth</i>		<i>Type</i>	
1,272'	1,303'	Big Dunkard	Log
<i>Productive Zones</i>		<i>Zone</i>	
6,310'	6,398'	Burkette	Mudlog Gas Shows
6,511'	6,560'	Marcellus	Mudlog Gas Shows

Initial Meeting

14 days prior to starting this workover procedure, hold a meeting, on location, with a Chevron Production representative and service rig contractor to discuss timing and needs of upcoming job. At this time the service rig contractor should make their "One Call" and also develop a site plan layout and have it to the correct Chevron personnel in a timely manner for site prep. 7 days prior to starting this workover procedure, ensure anchors are set (pull tested and charted), begin site prep and notify all business partners of start date and ensure all needed tools, equipment, tanks, fluids and tbg are available and on location by time of start date.

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Workover Procedure Details

1) Site Prep:

Francis IV PA Procedure



1. Hold Tailgate Safety Meeting and review all contractors JSA material for specific job task.
2. Check location and use pump style gas monitor with wand to check cellars for hazardous readings.
 - o Any gas detection in work area requires **Stop Work Authority (SWA)**.
3. MIRU containment (per site layout and needs) and surface rental equipment.
4. MIRU 3 500 bbls frac tanks and 2 500 bbls flowback tanks. Fill one (1) frac tank with (500 bbls) of produced water, fill the other 2 frac tanks with 500 bbls of fresh water each.
5. MIRU (2) 500bbl flow back tanks.
6. Obtain and record shut-in pressures on well and annulus.
 - o **Last recorded Csg. psi was 2,200 psi. (2/22/14)**
 - o **Last recorded Tbg.. psi was 2,100 psi. (2/22/14)**
7. Rig up flow back crew utilizing 15K frac iron and choke manifold from 9 5/8" annulus to certified flow back tank.
8. Verify 9 5/8" x 5 1/2" annulus pressure is 0 psi. If any psi is observed bleed psi down to 0 psi.
 - o Monitor surface CSG pressure/flow during circulating & pumping operations.
 - o Monitor pressure on the annulus throughout the job and leave open during working hours. Call engineer if it changes.
9. MIRU Key Service Rig and all ancillary equipment.

2) Kill Well:

10. Bullhead, the well, down the back side of the tbg with 120 bbls of produced water at 3.0 – 5.0 bpm to fill annulus.
 - o Do not exceed max pressure of 4,000 psi (5k production tree and a 20% safety factor = 4,000 psi).
11. Bullhead, the well, down the tbg with 30 bbls of produced water at at 3.0 – 5.0 bpm to fill tbg.
 - o Do not exceed max pressure of 4,000 psi (5k production tree and a 20% safety factor = 4,000 psi).

Bullheading is to displace any condensate back into the formation so as to not retrieve it on surface.

12. Close tubing and casing valves and monitor pressure for 30 minutes to ensure the well is dead.
 - o If psi is seen, bleed off psi and pump additional fluid as necessary to kill well.

3) Gyro Survey:

13. Hold Tailgate Safety Meeting and review all contractors JSA material for specific job task.
14. Spot equipment on location and assure spotters are utilized for all movement.
15. Check for psi and remove night cap.
 - o If psi is on the well, bleed down and monitor well for 30 minutes to ensure no buildup.
16. RU wire line unit.
17. PU gauge ring and junk basket into lubricator.
18. Stab lubricator onto well head and test to 4,000 psi.
19. Bleed lubricator down to 0 psi.
20. Open production tree master valves and RIH to **6,425'**
21. POOH and examine junk basket.
22. PU gyro data survey tools into lubricator, stab onto well head, and test to 4,000 psi.
23. Bleed lubricator down to 0 psi.
24. Open production tree master valves and RIH to **6,425'**
25. Log up to surface.
26. Get log on hard copy and digital and distribute as needed.
 - o **Send 2 Hard Copies of each log to office for Engineer to review.**

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27. RDMO survey unit.

4) **Wellhead Rigdown:**

28. Ensure well is at 0 psi.
 - o If psi is seen, bleed off psi and pump additional fluid as necessary to kill well.
29. Lubricate in Weatherford BPV in tubing hanger
30. ND existing production tree.
31. NU 7 1/16" BOP stack with blind rams on the bottom and 2 3/8" pipe rams on the top with annular.
32. Function test BOP.
33. Close BOP blind rams
34. Remove BPV and replace with a two way check.
35. RU pumps to BOP valves.
36. Pressure test BOP 250 low/ 5,000 high psi.
37. Remove two way check.

5) **Pull Tubing:**

38. MU 2 3/8" EUE FOSV (TIW) on tubing sub and close FOSV.
39. Stab into tubing hanger with tubing sub.
40. PU tubing and remove tubing sub FOSV and hanger.
41. Keep 2 3/8" EUE FOSV on standby on the rig floor and in the open position.
42. POOH
 - o 204 Joints of 2 3/8" 4.7# J-55 EUE 8 rnd tubing
 - o "X" Profile Nipple (1.875" ID)
 - o 1 Joint of 2 3/8" J-55 EUE 8 rnd tubing
 - o Pump off bit Sub
43. Close BOP's.
44. Check all tbg. for NORM.
45. If tubing is too corroded, damaged, or does not pass the NORM inspection, lay it down and pick up new tubing for a workstring.

6) **Run Cement Retainer:**

46. P/U and RIH with 4 5/8" tri-cone bit and CO to 5,500' be sure to keep well full of fluid.
47. POOH with bit and scraper.
48. P/U cement retainer.
49. RIH w/tubing and cement retainer to 5,500'.
50. Set cement retainer.
51. Sting out of retainer and pressure test to 1,000psi.
52. Sting back into retainer and stack out to tool hands recommended weight.

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7) **Cement Marcellus:**

53. Begin circulating fresh water down the 2 3/8" tubing increasing rate in increments of 0.5 bpm to establish an injection rate below 5,800 psi.



- o Burst pressure of 2 3/8", 4.7#, J-55 tubing is 7,700 psi and a 25% safety factor = 5800 psi
- 54. An injection rate is established once the pressure stabilizes and does not continue to increase, preferably 3.0 bpm or above.
- 55. Once an injection rate has been established, sting into cement retainer and begin squeezing cement into the perforations below the cement retainer.
- 56. Pump a total of 35 bbls or 165 sks (25% excess) of cement at 15.6 ppg (1.18 cu-ft/sk)
- 57. Displace cement with 19.25 bbls of fresh water. Do not exceed max pressure of 5,800 psi
- 58. Sting out of cement retainer and bleed pressure off.
- 59. Disconnect cement iron from tubing and open tubing valve to allow last 100' of cement to fall.

If max pressure is reached prior to displacement sting out of retainer and reverse circulate cement out.

- 60. POOH with 3 stands of tubing ~191'.
- 61. Reverse circulate tubing until returns are clean.
- 62. Circulate 100 bbls of fresh water to ensure well is full of fresh water above TOC/cement retainer.
- 63. Close BOP's, secure the well, and shut down over night to Wait on Cement (WOC), or a minimum of 4 hours if cement is pumped in the morning.

8) Next Day:

- 64. RIH with tbg. to determine top of cement. (Note and Record TOC in WV)
- 65. PU tubing 2-3'
- 66. Pressure test well to 1,000 psi and hold for 5 minutes. Scan copy of psi test to completion engineer.
- 67. Circulate 69 bbl of 6% Bentonite gel. (*Bentonite gel will be from 2,400'-5,400'*)
- 68. POOH
- 69. PU 5.5" RBP and RIH to set at 500'
- 70. POOH
- 71. Test plug to 1,000 psi

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9) Pull Free Casing:

- 72. RD 7 1/16" BOP stack and tubing spool.
- 73. Pick up casing spear, stab casing, and remove casing slips.
- 74. RU 11" 5M BOP stack with blind rams on the bottom and 5.5" pipe rams on the top.
- 75. MIRU Wireline Unit.
- 76. RIH and Retrieve Bridge Plug.
- 77. POOH
- 78. RU wireline and casing spear, and stab into 5.5" casing with casing spear.
- 79. RIH with wireline freepoint tool to determine 5.5" free point.
- 80. POOH with spear and freepoint tool.
- 81. RU chemical cutting tool and RIH - cut casing at ~50' above free point. (Est. ~2,440')
- 82. POOH with Csg. Spear and chemical cutting tool.
- 83. RU 5.5" casing handler and stab onto 5.5 casing
- 84. TOOH with free 5.5" casing keeping the well full of fluid (have FOSV on standby with 5.5" CDC star threads).
- 85. Close BOP's.
- 86. Check all csg. for NORM.

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10) Set Remaining Plugs:

- 87. Close BOP blind rams and change out 5.5" pipe rams with 2 3/8" pipe rams.
- 88. Spot RU Wireline Unit.



89. PU, solid composite 10K Cast Iron Bridge Plug (CIBP) and WL tools.
90. RIH with BHA to 3,000'.
91. PU and set solid CIBP at 2,600', or a minimum of 200' below where casing was cut.
92. Ensure CIBP is set and free from wireline, record line tension and weight and POOH.
93. PU & RIH with 2 3/8", 4.7#, J-55 tubing to top of CIBP.
94. Circulate hole full of 6% bentonite gel (~175bbls).
95. Pump a total of 35.4 bbls or 307 sks of cement at 15.6 ppg (1.18 cu-ft/sk)
 - o Estimated TOC to be at 2,000'.
96. POOH with 20 stands of tubing reverse circulate and WOC (minimum of 4 hours)
97. RIH and tag plug (Note and Record TOC in WV).
98. POOH laying down all tbg except 500'
99. PU 9 5/8" CIBP.
100. RIH and set 9 5/8" CIBP at ~500'
101. Circulate hole full, to surface, with 35.9 bbls or 257 sks of cement at 15.6 (1.18 cu-ft/sk).
102. POOH w/2 3/8" tubing, free fall cement in 9 5/8" casing to surface if needed, and shut-in.
103. RDMO all BPs.
104. Verify with DEP, wellhead removal and proceed as instructed.
 - o Upon the completion of plugging and filling of any abandoned well, permanent monument or marker consisting of a length of pipe (min diameter of 6") filled with concrete shall be erected over the well; the marker shall extend no less than 30" above the surface and not less than 10' below the surface, and shall be filled with concrete for the purpose of making the marker permanent. The API well identification number, which consists of the state (47), county (001 through 109), and permit number shall be attached or stamped in a permanent manner to said monument; and such numbering shall be no less than 1/2" in height and shall be detectable by any interested person approaching the marker.

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Current Well Bore Condition before P&A

Well: Francis #1	Clay Dist, Glen Easton 7.5' Quad	Updated: 11/8/10
County: Marshall	State: West Virginia	Status: Producing
Directions: See Prognosis	Location: 600' S of Lat 39° 52' 30"	Survey: Clay Dist, Glen Easton 7.5' Quad
Well Type: Vertical	Lease: 7150' W of Long 80° 40' 00"	API # 47-051-01190
Elevation: GL: 1265'	Completed Well	
DF: 1282'		Note: All depths MD unless noted
KB: 1283'		Build Location: Begin: 10/24/08 End: 11/4/08
24" Hole @ 65'		Spud: 11/7/08
20" 90# Conductor Csg @ 65'		Rig Release: 12/12/08
Cemented w 25 sxs - Circ		Completed: 3/29/09
17 1/2" Hole @ 970'		First Production: 11/5/10
13 3/8" 54.5# Surface Csg @ 966'		Turned Over to AB Resources
Cemented w 950 sxs		Air / Foam Drilling Method - Rotary
12 1/4" Hole @ 2495'		Rig: UDI #43 (KB: 18") Ziegenfuss Set Cond Pipe
9 5/8" 36# Intermediate Csg @ 2491'		
Cemented w 1040 sxs - Circ		
Sidetrack @ 5161'		
8 1/2" Hole @ 5661'		Tubing: 2 3/8" 4.7#
7 7/8" Hole @ 6744'		6464' 1 - 1.875" ID X Nipple
TOC @ 2490' by CBL		1 - 2 3/8" Joint
	Pump-off Bit Sub	
	6512' EOT	
Logged & Took Cores		
Penetrate Marcellus: 6511' MD		
Maximum Deviation -		
Displacement -		
3/10/09: BJ Frac w 12,116 BFW (Treated)	Burkett: Top @ 6379' 88 Holes	
263,000# 100 Mesh & 221,000# 40/70 sand.	2nd Stg Perfs: 6310' - 6330' 21 Holes	
sand. BD psi NA & BPM NA.	6365' - 6398' 67 Holes	
Avg 65 BPM @ 3862 psi. ISIP 2969 psi.	Marcellus: Top @ 6511' 51 Holes	
LTR: 24,379 bbls	1st Stg Perfs: 6510' - 6560' 51 Holes	
3/9/09: BJ Frac w 12,263 BFW (Treated)	RECEIVED	
263,000# 100 Mesh & 263,000# 40/70 sand.	Office of Oil and Gas	
BD @ 3836 psi @ 6.9 BPM.	APR 1 2014	
Avg 50.5 BPM @ 3973 psi. ISIP psi NA.	WV Department of	
LTR: 12,263 bbls - Well Screened Out	Environmental Protection	
	3/14/09: Ran Memory Tool	
5 1/2" 20# P-110 Csg @ 6727'		
Cemented w 970 sxs		
	PBTD: 6679'	
	TD: 6744'	



Proposed Well Bore Condition After P&A

Well: Francis #1	Clay Dist, Glen Easton 7.5' Quad	Updated: 11/8/10															
County: Marshall	State: West Virginia	Status: Producing															
Directions: See Prognosis	Lat 39° 52' 24.68"	Survey: Clay Dist, Glen Easton 7.5' Quad															
Well Type: Vertical	Long 80° 41' 32.14"	API # 47-051-01190															
P&A Well																	
Elevation: GL: 1285'																	
DF: 1282'																	
KB: 1283'																	
All Depths MD unless noted																	
Build Location: 10/24/2008 - 11/4/2008																	
Spud: 11/07/2008																	
Rig Release: 12/12/2008																	
Completed: 3/29/2008																	
First Production: 11/5/2010																	
Air / Foam Drilling Method - Rotary																	
24" Hole @ 85'																	
20" 90# Conductor Csg @ 85'																	
Cemented w/ 25 sxs - Circ																	
17 1/2" Hole @ 970'																	
13 3/8" 54.5# Surface Csg @ 988'																	
Cemented w/ 950 sxs																	
12 1/4" Hole @ 2495'																	
9 5/8" 36# Intermediate Csg @ 2491'																	
Cemented w/ 1040 sxs - Circ																	
Top of Production Csg. Cement @ 2490' by CBL																	
3/10/09: BJ Frac w/ 12,116 BFW (Treated)																	
263,000# 100 Mesh & 221,000# 40/70 sand.																	
sand. BD psi NA & BPM NA.																	
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LTR:24,379 bbls																	
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BD @ 3836 psi @ 6.9 BPM.																	
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LTR:12,263 bbls - Well Screened Out																	
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Marcellus:	Top @ 6511'	51 Holes															
1st Stg Perfs:	6510' - 6580'	51 Holes															
		3/14/09: Ran Memory Tool															



Completions AFE

Well Head

Chevron Francis 1V
Well Head.pdf

Schlumberger Cement Proposal

Chevron_Francis 1
_Abandonment_Plugs

Risk Assessment

P&A Risk Assessment

**APPENDIX B – Bottom Hole Assemblies (BHA)
Schlumberger Wireline – Cement Retainer & CIBPs**

4 500 - 8 625
CEMENT RETAINER (

BIG BOY CIBP.pdf

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APPENDIX C – Contacts

Francis 1V PA Procedure

Morning Daily Call at 8:30am

Phone # = (877)-344-4239

Event ID Code = 726999

Company	Contact Name	Title	Mobile	E-mail
Chevron, AMBU	Wimberg, Jim	Completions Superintendent	(412) 559-2893	jwimberg@chevron.com
Chevron, AMBU	Otero, Stephan	Completion Team Lead	(412) 522-8181	sotero@chevron.com
Chevron, AMBU	Wainwright, Sean	Completion Engineer	(412) 865-1479	SWainwright@chevron.com

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APR 1 2014

WV Department of
Environmental Protection

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

1) Well Operator AB Resources PA LLC Operator ID County Marshall District Clay Quadrangle 370

2) Operator's Well Number: Francis #1 3) Elevation: 1265.2'

4) Well Type: (a) Oil or Gas
 (b) If Gas: Production / Underground Storage
 Deep / Shallow

5) Proposed Target Formation(s): Marcellus Shale

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6) Proposed Total Depth: 8,000 Feet

7) Approximate fresh water strata depths: 60 - 100 feet

OCT 01 2008

8) Approximate salt water depths: None

9) Approximate coal seam depths: 810 feet Pittsburgh Coal

WV Department of
Environmental Protection

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

11) Describe proposed well work Drill well in order to test and produce from the Marcellus Shale. TD to be approximately 150 feet below the base of the Marcellus Shale formation.

12) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	
Conductor	20"	J-55	90	20'	20'	20
Fresh Water	13 3/8"	J-55	54.5	950'	950'	660 <i>to surface</i>
Coal						
Intermediate	9 5/8"	J-55	36	2,500'	2,500'	504
Production	5 1/2"	P-110	20		8,000'	568
Tubing	2 3/8"	J-55	4.7			
Liners						

Packers: Kind _____
 Sizes _____
 Depths Set _____

Handwritten: 7/11/08 5736

5101190F

WW-4A
Revised 6-07

1) Date: 1/28/2014
2) Operator's Well Number
Francis 1
3) API Well No.: 47 - 051 - 01190

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>Cairman Eastern Midstream, LLC</u>	Name <u>N/A</u>
Address <u>5949 Sherry Lane, Suite 1300</u>	Address _____
<u>Dallas TX 75225</u>	_____
(b) Name <u>Williams Ohio Valley Midstream, LLC</u>	(b) Coal Owner(s) with Declaration
Address <u>PO Box 645</u>	Name <u>Consolidation Coal Company (Pittsburgh Seam)</u>
<u>Tulsa, OK 74101</u>	Address <u>1000 Consol Energy Drive</u>
(c) Name _____	<u>Canonsburg, PA 15317</u>
Address _____	Name <u>Barbara Pearl Francis (All other seams)</u>
_____	Address <u>413 Filbert Drive</u> ✓
_____	<u>Moundsville, WV 26041</u>
6) Inspector <u>Jim Nicholson</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 44</u>	Name <u>N/A</u>
<u>Moundsville, WV 26041</u>	Address _____
Telephone <u>(304) 552-3874</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.

COMMONWEALTH OF PENNSYLVANIA Notarial Seal Rodney Lee Frazee, Notary Public Henry Clay Twp., Fayette County My Commission Expires Jan. 12, 2016 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES	Well Operator <u>Chevron Appalachia, LLC</u>
	By: <u>[Signature]</u>
	Its: <u>Construction Permitting Team Lead</u>
	Address <u>800 Mountain View Drive</u>
	<u>Smithfield, PA 15478</u>
Telephone <u>724-564-3745</u>	

Subscribed and sworn before me this 30th day of January, 2014
Rodney Lee Frazee Notary Public
My Commission Expires January 12, 2016

Received

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 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.

Office of Oil and Gas
WV Dept. of Environmental Protection

5101190P

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>E Jones</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>E Jones</i></p> <p>C. Date of Delivery <i>2/4/14</i></p>
<p>1. Article Addressed to:</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Caiman Eastern Midstream LLC 5949 Sherry Lane, Suite 1300 Dallas, TX 75225 ✓</p> </div>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Priority Mail Express™ <input checked="" type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> Collect on Delivery</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label)</p>	<p>7013 0600 0001 4225 5235</p>
<p>PS Form 3811, July 2013 Domestic Return Receipt</p>	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>G. Bell</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>G Bell</i></p> <p>C. Date of Delivery <i>2-3-14</i></p>
<p>1. Article Addressed to:</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Consolidation Coal Company 1000 Consol Energy Drive Canonsburg, PA 15317 ✓ Attention: Don Puglio</p> </div>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Priority Mail Express™ <input checked="" type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> Collect on Delivery</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label)</p>	<p>7013 0600 0001 4225 5242</p>
<p>PS Form 3811, July 2013 Domestic Return Receipt</p>	

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FEB 20 2014

WV Department of
Environmental Protection

5101190P

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Williams Ohio Valley Midstream LLC
 PO Box 645
 Tulsa, OK 74101

2. Article Number
(Transfer from service label)

7013 2630 0002 1058 2855

COMPLETE THIS SECTION ON DELIVERY

A. Signature
 X *[Signature]* Agent Address

B. Received by (Printed Name) Date of Delivery
K. M. [Signature] FEB 27 2011

D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:

3. Service Type

Certified Mail® Priority Mail Express™
 Registered Return Receipt for Merchandise
 Insured Mail Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes

English

Customer Service

USPS Mobile

Register / Sign In



Search USPS.com or Track Packages

Quick Tools

Track

Enter up to 10 Tracking # Find

Find USPS Locations

Buy Stamps

Schedule a Pickup

Calculate Postage

Look Up My Mail

Hold Mail

Change of Address

Ship a Package

Send Mail

Manage Your Mail

Shop

Business Solutions

USPS Tracking™



Customer Service ›
Have questions? We're here to help.

Tracking Number: 7013060000142255341

Product & Tracking Information

Postal Product:

Features:
Certified Mail™

Available Actions

Email Updates

DATE & TIME	STATUS OF ITEM	LOCATION
February 14, 2014, 10:47 am	Delivered	MOUNDSVILLE, WV 26041
February 14, 2014, 8:15 am	Out for Delivery	MOUNDSVILLE, WV 26041
February 14, 2014, 8:05 am	Sorting Complete	MOUNDSVILLE, WV 26041
February 14, 2014	Depart USPS Sort Facility	PITTSBURGH, PA 15290
February 14, 2014, 6:52 am	Arrival at Unit	MOUNDSVILLE, WV 26041
February 14, 2014, 12:19 am	Processed through USPS Sort Facility	PITTSBURGH, PA 15290
February 13, 2014, 9:29 pm	Processed through USPS Sort Facility	PITTSBURGH, PA 15290

Track Air

What's your track

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

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Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



LEGAL

Privacy Policy ›

Terms of Use ›

FOIA ›

No FEAR Act EEO Da



Sent To
Barbara Pearl Francis
Street, Apt. No.
or PO Box No. A13 Filbert Drive ✓
City, State, ZIP+4
Moundsville, WV 26041

PS Form 3800, August 2006

See Reverse for Instructions

OTHER USPS SITES

Business Customer Gateway ›

Postal Inspectors ›

Inspector General ›

Postal Explorer ›

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FEB 20 2014

WV Department of
Environmental Protection

SURFACE OWNER WAIVER

Operator's Well
Number

Francis 1

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

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

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...".

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON
ETC.

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FEB 20 2014

FOR EXECUTION BY A CORPORATION,
WV Department of Environmental Protection

_____	_____	_____	_____
Signature	Date	Name	
		By	_____
		Its	_____
			Date
		Signature	Date

WW-4B

API No.	47-5101190 P
Farm Name	Francis
Well No.	1

**INSTRUCTIONS TO COAL OPERATORS
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

WAIVER

The undersigned coal operator ____/ owner ____/ lessee ____/ of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____

By: _____

Its _____

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FEB 20 2014
WV Department of
Environmental Protection

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 Chevron Appalachia, LLC OP Code 49449935

Watershed Bartletts Run Quadrangle Glen Easton 7.5" 370

Elevation 1265 County Marshall 51 District Clay 2

Description of anticipated Pit Waste: Fluids and Solids produced by plugging activities

Will a synthetic liner be used in the pit? No

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 Removed offsite to AAP Facility in Masontown, PA #PA 0253723)

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) BRANDEN WEIMER

Company Official Title CONSTRUCTION PERMITTING TEAM LEAD

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Office of Oil and Gas

Subscribed and sworn before me this 30th day of January, 20 14

FEB 20 2014

[Signature]

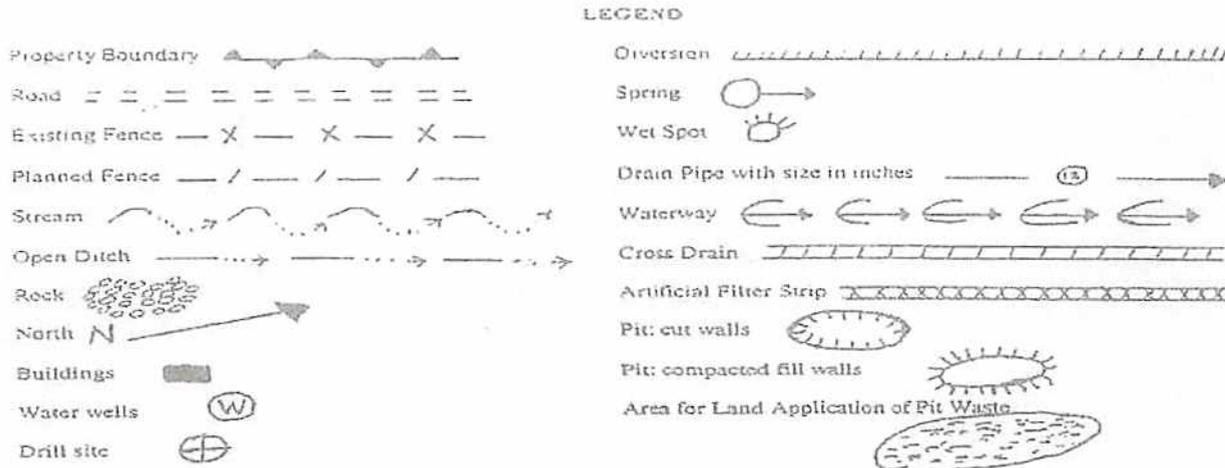
Notary Public
WV Department of Environmental Protection

My commission expires January 12, 2016

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Rodney Lee Frazee, Notary Public
Henry Clay Twp., Fayette County
My Commission Expires Jan. 12, 2016
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Form WW-9

Operator's Well No. Francis I



Proposed Revegetation Treatment: Acres Disturbed 2.9 Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

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

Mulch Hay or Straw @2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Grain Rye	100	Red Clover	5
Annual Rye	20	White Clover	5
Perennial Rye	10	Alta Clover	5
Yellow Clover	5	Birdsfoot Trefoil	10
		Fescue	40

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

Photocopied section of involved 7.5' topographic sheet. - Attached

Plan Approved by: Jim Unholske William A. ...

Comments: _____

Title: Oil & Gas Inspector Date: 2/7/14

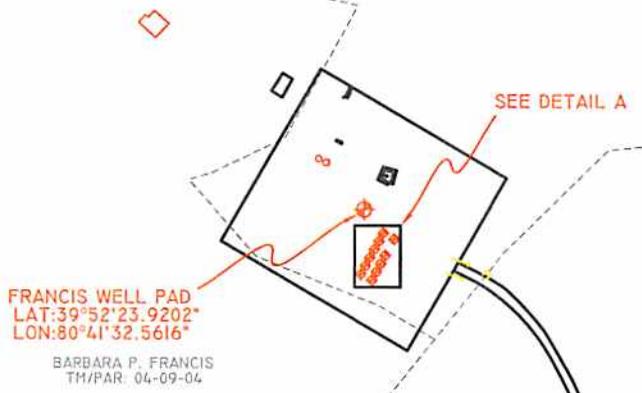
Field Reviewed? Yes No

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FEB 20 2014
WV Department of Environmental Protection

- 1. DIESEL TANK
- 2. DRILLING CHEMICALS STORAGE
- 3. FRAC CHEMICALS STORAGE
- 4. OTHER: _____
- 5. OTHER: _____
- 6. OTHER: _____
- 7. OTHER: _____

FACILITY ID# _____

DIRECTIONS: _____



FRANCIS WELL PAD
 LAT:39°52'23.9202"
 LON:80°41'32.5616"

BARBARA P. FRANCIS
 TM/PAR: 04-09-04

RONALD A. HILL
 TM/PAR: 04-09-05

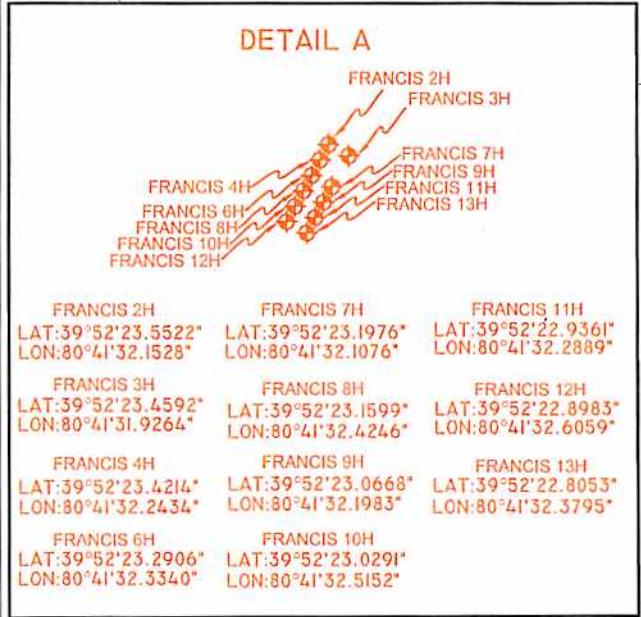
RONALD A. HILL
 TM/PAR: 02-09-05

ALAN G. BERNAS
 TM/PAR: 04-09-24

JAMES L. PARKER ET UX
 TM/PAR: 04-09-24.1

NELSON H. FLETCHER ET UX - LIFE
 TM/PAR: 04-09-19

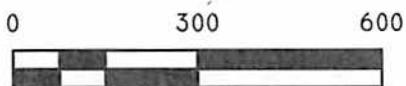
TERRENCE W. & FRANCES A. WOLFE
 TM/PAR: 04-09-24.2



FRANCIS 2H LAT:39°52'23.5522" LON:80°41'32.1528"	FRANCIS 7H LAT:39°52'23.1976" LON:80°41'32.1076"	FRANCIS 11H LAT:39°52'22.9361" LON:80°41'32.2889"
FRANCIS 3H LAT:39°52'23.4592" LON:80°41'31.9264"	FRANCIS 8H LAT:39°52'23.1599" LON:80°41'32.4246"	FRANCIS 12H LAT:39°52'22.8985" LON:80°41'32.6059"
FRANCIS 4H LAT:39°52'23.4214" LON:80°41'32.2434"	FRANCIS 9H LAT:39°52'23.0668" LON:80°41'32.1983"	FRANCIS 13H LAT:39°52'22.8053" LON:80°41'32.3795"
FRANCIS 6H LAT:39°52'23.2906" LON:80°41'32.3340"	FRANCIS 10H LAT:39°52'23.0291" LON:80°41'32.5152"	

FRANCIS ACCESS ROAD
 LAT:39°52'07.4112"
 LON:80°41'39.7251"

FORK RIDGE ROAD



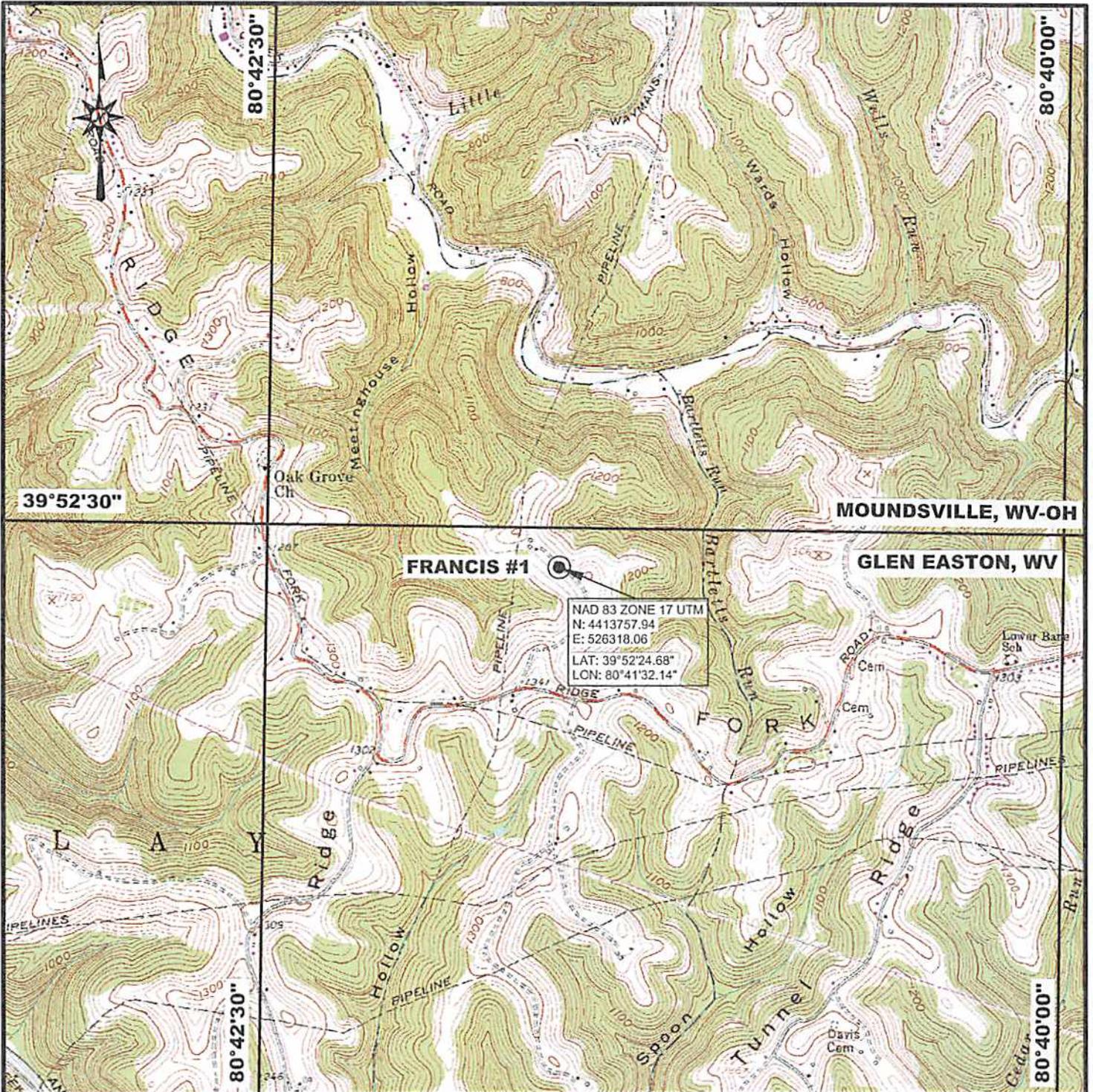
CHEVRON APPALACHIA, INC.
 800 MOUNTAIN VIEW DRIVE
 SMITHFIELD, PA 15478

FRANCIS WELL SITE
 TIER II DRAWING

REVISIONS	
DATE	TYPE

DRAWN BY: JMJ
 CHECKED BY:
 DATE: 09/17/13
 SCALE: 1" = 300'
 JOB NO.:
 DRAWING NAME: FRANCIS TIER II

Blue Mountain Inc.
 Engineers and Land Surveyors
 11023 Mount Zion Hwy
 Barboursville, WV 26032-9638
 (304) 882-6438



NAD 83 ZONE 17 UTM
 N: 4413757.94
 E: 526318.06
 LAT: 39°52'24.68"
 LON: 80°41'32.14"

Blue Mountain Inc.
 11023 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

PREPARED FOR:
CHEVRON APPALACHIA, LLC
 800 MOUNTAIN VIEW DRIVE
 SMITHFIELD, PA 15478

LEGEND
 ● - WELLBORE

FRANCIS #1
LOCATION MAP
MARSHALL COUNTY
GLAY DISTRICT
WEST VIRGINIA

TOPO QUAD: GLEN EASTON, WV
 SCALE: 1" = 2000'
 DATE: JANUARY 29, 2014
 WV Department of Environmental Protection

5101190P

WW-7
8-30-06



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

API: 47-5101190 WELL NO.: 1

FARM NAME: Francis

RESPONSIBLE PARTY NAME: Chevron Appalachia, LLC

COUNTY: Marshall DISTRICT: Clay

QUADRANGLE: Glen Easton 7.5"

SURFACE OWNER: Caiman Eastern Midstream LLC/Williams Ohio Valley Midstream, LLC

ROYALTY OWNER: Barbara Pearl Francis

UTM GPS NORTHING: 4413757.94

UTM GPS EASTING: 526318.06 GPS ELEVATION: 1265

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:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- Data Collection Method:
Survey grade GPS ____ : Post Processed Differential ____
Real-Time Differential ____
Mapping Grade GPS ____ : Post Processed Differential ____
Real-Time Differential ____

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

[Signature]
Signature

CONSTRUCTION PERMITTING TEAM LEAD
Title

RECEIVED
Office of Oil and Gas
FEB 20 2014
Date
WV Department of
Environmental Protection

5101190P



Kristen Brooks
Permit Coordinator

**Appalachian/Michigan
Strategic Business Unit**
Chevron North America
Exploration and Production
A Division of Chevron U.S.A. Inc.
800 Mountain View Drive
Smithfield, PA 15478
Tel 724-564-3781
Fax 724-564-3894
kristenbrooks@chevron.com

February 18, 2014

West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th Street SE
Charleston, WV 25304-2345

RE: Francis #1H Application to Plug and Abandon a Well

Dear Mr. Smith:

Enclosed is an Application for a Permit to Plug & Abandon the Francis #1H well (API #47-051-01190) in Marshall County.

If you have any questions, please contact me at (724) 564-3781 or kristenbrooks@chevron.com.

Sincerely,

A handwritten signature in black ink that reads "Kristen Brooks".

Kristen Brooks
Permit Coordinator
Chevron Appalachia, LLC

RECEIVED
Office of Oil and Gas
FEB 20 2014
WV Department of
Environmental Protection