



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 12, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-5101748, 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: HART 2H
Farm Name: HART, JOHN J. & RENEE
API Well Number: 47-5101748
Permit Type: Plugging
Date Issued: 08/12/2015

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.

1) Date June 11, 2015
2) Operator's
Well No. 2H
3) API Well No. 47-51 - 01748

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 1329' Watershed Middle Grave Creek - Grave Creek
District Washington County Marshall Quadrangle Moundsville, WV 7.5'

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

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name James Nicholson Name _____
Address P.O. Box 44 Address _____
Moundsville, WV 26041

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

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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 _____



RU Workover Rig and Pressure Test BOP:

1. MIRU Key Workover Rig.
2. TIH with 2-7/8" PH6 WS and latch onto PKR at 1760'. Make sure slip type elevators are used while handling PH-6 pipe.
3. Pull 20K on PKR to insure it is set. Slack off overpull.
4. Close annular. Pressure test to 250 psi low/2,500 psi high. High test should be for 30 minutes. (Make sure tubing is latched to PKR and PKR is securely set. Tubing will be pipe light at 2,500 psi.)
5. Release PKR and monitor for flow at choke for 10 min.
6. Open annular and TOH, and LD PKR.
7. TIH and latch onto PKR at 1832'.
8. Close annular, release PKR and monitor for flow at choke for 10 min.
9. Open annular and TOH, and LD PKR.

Set 1st cement Plug:

10. TIH with tubing and tag top of previous cement plug at 2395'.
11. Circulate well clean with FW.
12. MIRU SLB cement crew. Pressure test lines to 4,000 psi.
 1. Pump 9 bbl (~400') cement as per SLB cement proposal. Displace with FW, and under displace as per displacement listed in SLB proposal.
13. TOH to 2,000' and circulate well clean with PKR fluid.
14. TOH and WOC for 8 hours.
15. TIH and tag TOC an record TOC in WV. Notify engineer if TOC is +/-50' from 2,032'.

Set 2nd cement Plug:

1. TOH and PU 9-5/8" CIBP.
2. TIH and set CIBP at 1,900'
3. Close annular and pressure test CIBP to 1,000 psi.
4. MIRU SLB cement crew. Pressure test lines to 4,000 psi.
 2. Pump 38 bbl (~500') cement as per SLB cement proposal. Displace with FW, and under displace as per displacement listed in SLB proposal.
5. TOH to 1,400' and circulate well clean with PKR fluid.
6. TOH and WOC for 8 hours.
7. TIH and tag TOC an record TOC in WV. Notify engineer if TOC is +/-50' from 1,400'.

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Set 3rd cement Plug:

3. TOH and PU 9-5/8" CIBP.
4. TIH and set CIBP at 1,200'

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5. Close annular and pressure test CIBP to 8,000 psi.
6. MIRU SLB cement crew. Pressure test lines to 4,000 psi.
7. Pump 38 bbl (~500') cement as per SLB cement proposal. Displace with FW, and under displace as per displacement listed in SLB proposal.
8. TOH to 700' and circulate well clean with PKR fluid.
9. TOH and WOC for 8 hours.
10. TIH and tag TOC an record TOC in WV. Notify engineer if TOC is +/-50' from 700'.

Set 4th cement Plug:

1. TOH and PU 9-5/8" CIBP.
2. TIH and set CIBP at 500'
3. Close annular and pressure test CIBP to 8,000 psi.
4. MIRU SLB cement crew. Pressure test lines to 4,000 psi.
5. Pump 38 bbl (~500') cement as per SLB cement proposal. Pump cement to surface. Displace with FW.

Cement Program:



Chevron_Hart_2H_P
&A_Proposal_05-26-;

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5101748A

Hart 2H

Marshall Co		DEPTH (GL)		WELLHEAD DESIGN FMC UH-2 13 5/8"	HOLE SIZE (IN)	HOLE DEPTH (FT)	Ground Level Elev. (ft above SL): 1324	
6/11/2015 10:19		MD (FT)	TVD (FT)				Depth Meas. // Air KB (ft above GL): 15	Highlands 14
DRILLING FLUID / BIT TYPE / TFA	CENTRALIZER PROGRAM	CASING SIZE					CASING SPECS	RKB Elevation 1356
		30" Conductor	55	-		35		
		Top Cement Plug #5	Surface					
Air		20" Casing	358	-		25	20" 943 J-85 BTC	
		CIBP	500					
		Top Cement Plug #4	700					
Air		13-3/8" Casing	949	-		17.50	13-3/8" 54.58 J-55 BTC	
		CIBP	1,200					
		Top Cement Plug #3	1,400					
		CIBP	1,900					
		Top of 5.5" casing	1,932					
		Top Cement Plug #2	2,000					
3 ppg SBM		9-5/8" Casing	2,251	-		12.25	9-5/8" 40# N-40 BTC	
		Top Cement Plug #1	2,395					
		Retainer	2,800					
		Baker PKR	2,827					
							TOC	-2350
							SC-2P Packer	2827.0
							Size 26 Sealbore Extension	2830.7
							Crossover	2831.9
							Pup Joint: 2-3/8 4.7# EUE J-55	2842.0
							1.87 XN Profile	2842.7
							Wireline Entry Guide	2852.8
							EOT	2853.7
							Parts at 2874-2925'	
15 ppg SBM		5.5 Casing	3578	-		8.5	5.5" 20 # P-110 VA Superior	

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Proposed Final WBD:

CASING SIZE	DEPTH (GL)		WELLHEAD DESIGN FMC UH-2 13 5/8"	HOLE SIZE (IN)	HOLE DEPTH (FT)	CASING SPECS	
	MD (FT)	TVD (FT)					
30" Conductor	55	-		36			
Top Cement Plug #5	Surface						
20" Casing	350	-			26		20" 943 J-55 BTC
CIBP	500						
Top Cement Plug #4	700						
13-3/8" Casing	949	-		17.50		13-3/8" 54.5# J-55 BTC	
CIBP	1,200						
Top Cement Plug #3	1,400						
CIBP	1,900						
Top of 5.5" casing	1,932						
Top Cement Plug #2	2,000						
9-5/8" Casing	2,251	-		12.25		9-5/8" 40# N-80 BTC	
Top Cement Plug #1	2,395						
Retainer	2,600						
Baker PKR	2,827						
						TOC -2350	
						SC-2P Packer 2827.0	
						Size 26 Sealbore Extension 2830.7	
						Crossover 2831.9	
						Pup Joint: 2-3/8 4.7# EUE 165 2842.0	
						1.87 XN Profile 2842.7	
						Wireline Entry Guide 2852.6	
						EOT 2853.7	
						Perfs at 2874-2925	
5.5 Casing	3578			8.5		5.5" 20 # P-110 VA Superior	

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Current WBD:

CASING SIZE	DEPTH (GL)		WELLHEAD DESIGN FMC UH-2 13 5/8"	HOLE SIZE (IN)	HOLE DEPTH (FT)	CASING SPECS
	MD (FT)	TVD (FT)				
30" Conductor	55	-		36		
20" Casing	350	-		26		20" 943 J-55 BTC
13-3/8" Casing	949	-		17.50		13-3/8" 54.5# J-55 BTC
PKR	1,760		PKR			
PKR	1,832		PKR			
Top of 5.5" casing	1,932					Cut at 1,981 Cut at 2,175
9-5/8" Casing	2,251	-		12.25		9-5/8" 40# N-80 BTC
Cement Plug	2,395					Cut at 2,325 TOC -2350
Retainer	2,800		Retainer			
Baker PKR	2,827		PKR			SC-2P Packer 2827.0 Size 26 Sealbore Extension 2830.7 Crossover 2831.9 Pup Joint: 2-3/8" 1.7# EUE J-55 2842.0 1.87 XN Profile 2842.7 Wireline J-55 Guide 2852.8 EOT 2853.7
5.5 Casing	3578			8.5		Perfs at 2874-2925 5.5" 20 # P-110 VA Superior

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WR-35
Rev. 8/23/13

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WV Department of
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State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 051 - 01748 County Marshall District Washington
Quad Moundsville Pad Name Hart Field/Pool Name _____
Farm name Hart, John J. & Renee Well Number 2H
Operator (as registered with the OOG) Chevron Appalachia, LLC
Address 800 Mountain View Drive City Smithfield State PA Zip 15478

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing _____ Easting _____
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1329' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)

Date permit issued 6/16/2014 Date drilling commenced 9/30/2014 Date drilling ceased 6/10/2015
Date completion activities began _____ Date completion activities ceased _____
Verbal plugging (Y/N) Y Date permission granted 6/5/2015 Granted by Jim Nicholson

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft _____ Open mine(s) (Y/N) depths _____
Salt water depth(s) ft _____ Void(s) encountered (Y/N) depths _____
Coal depth(s) ft _____ Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) _____

Reviewed by:
08/14/2015

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API 47-051 - 01748 Farm name Hart, John J. & Renee Well number 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	36"	30"	40'	New	X-42; 118.76#		
Surface	26"	20"	318'	New	J-55; 94#		
Coal	17 1/2"	13 3/8"	917'	New	J-55; 54.50#		
Intermediate 1	12 1/4"	9 5/8"	2219'	New	L-80; 40#		
Intermediate 2							
Intermediate 3							
Production	8 1/2"	5 1/2"	3546'	New	P-110; 20#		
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Bulk	60					
Surface	Class A	637	15.60	1.20			
Coal	Class A	843	15.60	1.20			
Intermediate 1		759	15.60	1.18			
Intermediate 2		52 BBL	16				
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) _____ Loggers TD (ft) _____
 Deepest formation penetrated _____ Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) _____

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____
 AUG 4 2015

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____
 WV Department of Environmental Protection

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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API 47- 051 - 01748 Farm name Hart, John J. & Renee Well number _____

PRODUCING FORMATION(S)	DEPTHS	
	TVD	MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	0		0		
Dunkard Group Sand					
Pittsburgh Coal	840	850	840	850	Coal (not void)
Salt Sand	1516	1699	1517	1700	SS:gy,lggy,cr,trans,shnd,md,msph,conad,msrl,cmf,arg; 375u gas show @ 1539', 200u gas show @ 1700'
Big Lime	1813	1905	1815	1907	SLTS:gy,mggy,m-dkgy,ccc rd-sbrnd,mg,fg,cmf,SH,mggy,dkgy,bbkly,frm,SS:offwh,wh,cr,trans,cmf,mg,fg
Burgoon (Big Injun)	1905	2158	1907	2160	SEE ATTACHED
Weir Sand	2298	2315	2300	2317	SS:cr,trans,wh,lggy,cons,cmf,mg,fg,shang-ang,shnd,mp,msph,ss,pyr,noncalc,brfor,nc,ut; 177u gas show @ 2317'
Berea Sand	2505	2516	2507	2518	SS:Wh,cr,trans,lggy,gy,cons,cmf,mg,fg,shang-ang,msph,non calc,br for,nd fast cut,br,ss,pyr,shang SLTST
Gordon Sands	2748	2928	2750	2930	SEE ATTACHED
Speechley Sand	3413	3432	3415	3535	SEE ATTACHED

Please insert additional pages as applicable.

Drilling Contractor SEE ATTACHED
Address _____ City _____ State _____ Zip _____

Logging Company _____
Address _____ City _____ State _____ Zip _____

Cementing Company SEE ATTACHED
Address _____ City _____ State WV DE Zip _____

Stimulating Company _____
Address _____ City _____ State _____ Zip _____

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Please insert additional pages as applicable.

Completed by Jackie M. Scholar Telephone 724-564-3721
Signature _____ Title Regulatory Compliance Team Lead Date 7/6/2015

API: 47-051-01748	Well Name: Hart	Well Number: 2H
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CEMENTING CONTRACTORS			
Name	Name	Name	Name
Schlumberger Technology Corp	Baker Hughes		
Address Two Robinson Plaza, Suite 200	Address 5373 West Alabama, Suite 300	Address	Address
City - State - Zip Pittsburgh, PA 15205	City - State - Zip Houston, TX 77056	City - State - Zip	City - State - Zip

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Environmental Protection

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API: 47-051-01748	Well Name: Hart	Well Number: 2H
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DRILLING CONTRACTORS			
Driller	Driller	Driller	Driller
Name Rocky Mountain Drilling	Name Highlands Drilling LLC	Name Nabors Drilling USA	Name
Address 185 North Vernal Avenue, Suite 2	Address 900 Virginia Street East	Address 10100 NW 10th street	Address
City - State - Zip Vernal, UT 84078	City - State - Zip Charlestone, WV 25301	City - State - Zip Oklahoma City, IK 73127	City - State - Zip

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LITHOLOGY	
Lithology Formation	Describe Rock type and record quantity and type of fluid (fresh water, brine, oil, gas, H2S, Etc.)
Burgoon (Big Injun)	SS:ltgy-gy,wh,clr,cons,trans,lcmt,mg-fg,sbang-ang,sbrnd,arg,msph,non calc,tr flor, no cut, no odr,w/SLTST:mgyltgy,frm-hrd,vfg,sbrnd,tcmt,non calc
Gordon Sands	Mudlogging unit lost power, then High gas shows beginning @ 2846', causing site Muster, no samples (no pwr/mustered), 15# mud kill wt
Speechley Sand	SS:ltgy-gy,wh,clr,trans,cons,lcmt,mg-fg,sbang-ang,arg,msph,wsrt,non calc,tr flor, fnt cut, strong odor,w/arg SLTST; 267u gas show @ 3460'

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WW-4A
Revised 6-07

1) Date: 6/11/15
2) Operator's Well Number
2H _____
3) API Well No.: 47 - 51 - 01748

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

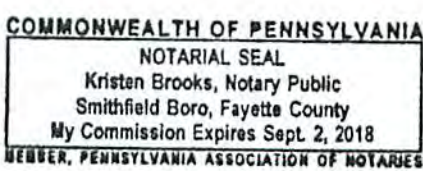
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>John J. & Renee Hart</u>	Name _____
Address <u>433 J & R Drive</u>	Address _____
<u>Moundsville, WV 26041</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Consolidated Coal Company</u>
	Address <u>1000 Consol Energy Drive</u>
	<u>Canonsburg, PA 15317</u>
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>James Nicholson</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 44</u>	Name _____
<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.



Well Operator	<u>Chevron Appalachia, LLC</u>	RECEIVED Office of Oil and Gas JUN 25 2015
By:	<u>Jenny Hayes</u>	
Its:	<u>Permitting Team Lead</u>	
Address	<u>800 Mountain View Drive</u> <u>Smithfield, PA 15478</u>	
Telephone	<u>724-564-3700</u>	

Subscribed and sworn before me this 15th day of June, 2015

Kristen Brooks Notary Public

My Commission Expires Sept 2, 2018

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.

5101748A

WW-9
(2/15)

API Number 47 - 51 - 01748
Operator's Well No. 2H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Chevron Appalachia, LLC OP Code 49449935

Watershed (HUC 10) Middle Grave Creek - Grave Creek Quadrangle Moundsville, WV 7.5'

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

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 _____)

ANY WELL EFFLUENT MUST
BE CONTAINED IN TANKS &
DISPOSED OF PROPERLY.
- JMM

Will closed loop system be used? If so, describe: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. NA Plugging Well

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on 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.

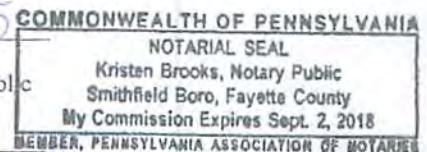
Company Official Signature Jenny Hayes
Company Official (Typed Name) Jenny Hayes
Company Official Title Permitting Team Lead

JUN 25 2015

WV Department of
Environmental Protection

Subscribed and sworn before me this 15th day of June, 20 15
Kristen Brooks Notary Public

My commission expires Sept 2, 2018



08/14/2015

Chevron Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed 13.6 Prevegetation pH 7

Lime 2 Tons/acre or to correct to pH 5.5-7

Fertilizer type Mixed grasses and legumes, legume stands only, grass stands only

Fertilizer amount 1000 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

Annual Ryegrass See Pg ES104

Kentucky 31 Descur See Pg ES104

Barley or Oats See Pg ES104

Red Fescue See Pg ES104

Millet See Pg ES104

Crownvetch See Pg ES104

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]
Comments: _____

RECEIVED
Office of Oil and Gas

JUN 25 2015

WV Department of
Environmental Protection

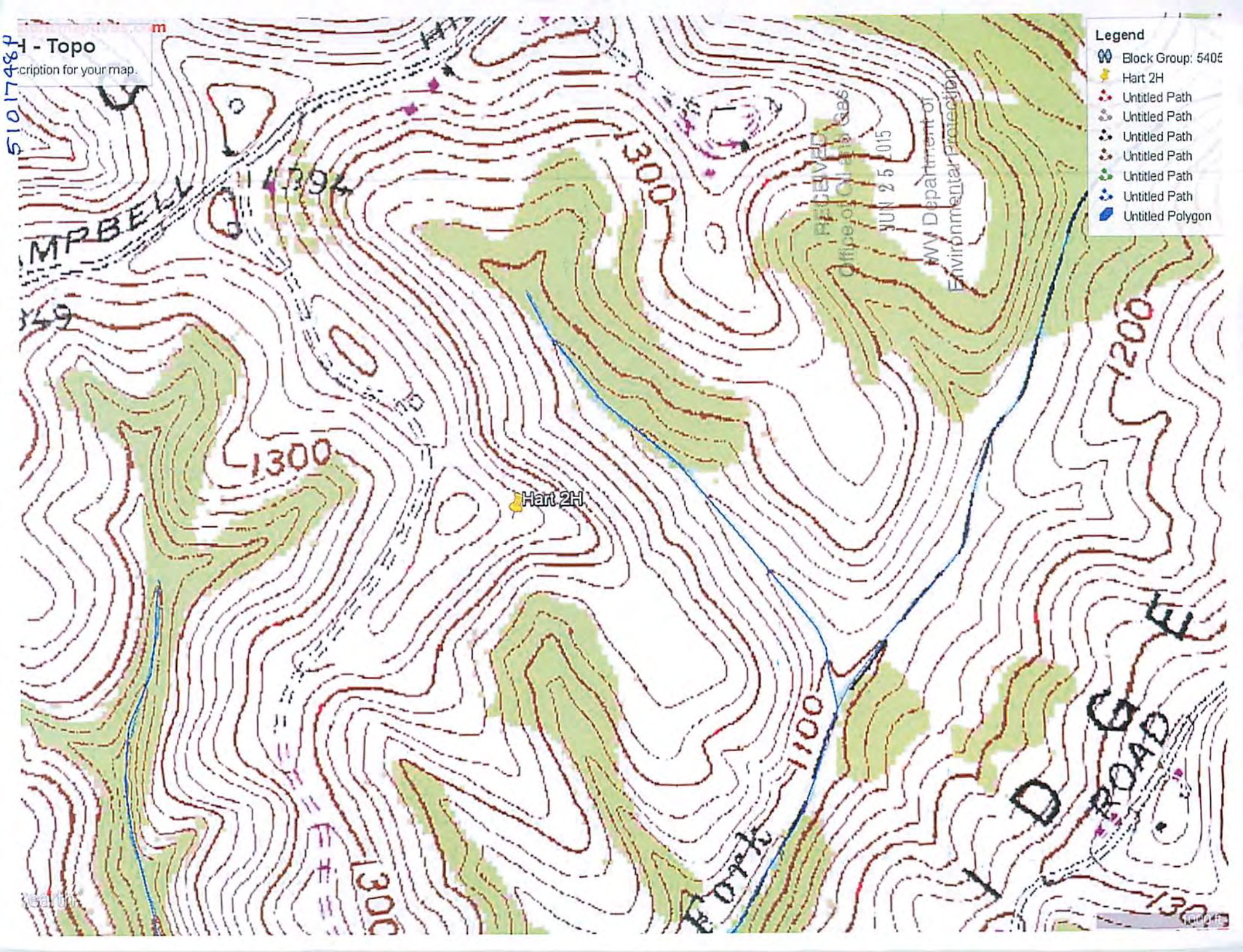
Title: Oil & Gas Inspector Date: 6/18/15

Field Reviewed? () Yes () No

51017484
H - Topo
Description for your map.

m

- Legend
- Block Group: 5405
 - Hart 2H
 - Untitled Path
 - Untitled Path
 - Untitled Path
 - Untitled Path
 - Untitled Path
 - Untitled Path
 - Untitled Polygon



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Office of Oil and Gas
JUN 25 2015
NY Department of
Environmental Protection

MARBELL

Hart 2H

D D ROAD

51017484

Well is located on topo map 1.120 feet south of Latitude: 39° 55' 00"

SEE PAGE 2 FOR SURFACE OWNERS

NOTES

1. There are no water wells or developed springs within 250' of proposed well.
2. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
3. There are no native trout streams within 300' of proposed well.
4. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
5. It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

Well is located on topo map 8.391 feet west of Longitude: 80° 37' 30"



FILE #: HART 2H
 DRAWING #: HART 2H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: *George D. Six*
 R.P.E.: _____ L.L.S.: P.S. No. 2000



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304

DATE: MARCH 13, 2014
 OPERATOR'S WELL #: HART 2H
 API WELL #: 47 51 01748 P
 STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: MIDDLE GRAVE CREEK - GRAVE CREEK ELEVATION: 1329.31'
 COUNTY/DISTRICT: MARSHALL / WASHINGTON QUADRANGLE: MOUNDSVILLE, WV 7.5'
 SURFACE OWNER: JOHN J. & RENEE HART ACREAGE: 108.550±
 OIL & GAS ROYALTY OWNER: JOHN J. & RENEE HART ACREAGE: 595.897±

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,565± TMD: 15,168±
 WELL OPERATOR CHEVRON APPALACHIA, LLC DESIGNATED AGENT KENNETH E. TAWNEY
 Address 800 MOUNTAIN VIEW DRIVE Address 500 LEE STREET, EAST SUITE 1600
 City SMITHFIELD State PA Zip Code 15478 City CHARLESTON State WV Zip Code 25301-3202

08/14/2015



HART

2H

	SURFACE OWNER	DIST-TM/PAR
1	WILLIAM H. III & LINDA BARDALL	14-7/42
2	WILLIAM H. III & LINDA BARDALL	14-7/41
3	MARSHALL COUNTY 4-H LEADERS	14-7/40
4	JOHN R. REGAN & CONNIE L. THOMAS	14-6/1
5	JEFFREY L. & JANET L. ALLEN	14-6/40
6	JEFFREY L. & JANET L. ALLEN	14-6/38
7	JOHN R. REGAN & CONNIE THOMAS	14-6/2
8	DANIEL R. WOOD - SHAWN ALLMAN	14-6/2.1
9	JOHN R. REGAN & CONNIE L. THOMAS	14-6/3
10	ROBERT R. & KATHY D. BROWN	14-6/3.4
11	JOHN R. REGAN & CONNIE L. THOMAS	14-6/3.3
12	JEFFREY L. & JANET L. ALLEN	14-6/39
13	BERRIDGE L. ALLEN ET UX	14-6/38.1
14	BERRIDGE L. ALLEN ET UX	14-6/38.3
15	MARC A. MOLOSKI ET UX	14-6/3.1
16	BERRIDGE L. ALLEN ET UX	14-6/38.2
17	JEFFREY L. & JANET L. ALLEN	14-6/37
18	MARC MOLOSKI	14-6/34.4
19	GARY V. SINGER ET UX	14-6/34.7
20	GARY V. SINGER ET UX	14-6/34.9
21	CARL W. & BRIDGETT L. YOHO	14-6/35
22	JOHN W. & MARY A. MILLER	14-6/41
23	DENNIS BLAKE ET UX	14-10/10
24	JOHN J. II & JENNA E. HART	14-10/11
25	DENNIS & MICHELLE S. BLAKE	14-10/11.3
26	BONNIE L. & GARY V. SINGER	14-6/34.8
27	GARY A. STROPE	14-6/34.10
28	JAMES D. & DONNA J. DRAKE	14-6/34
29	JENNIFER B. READ	14-6/34.5
30	JERRY S. WHORTON ET UX	14-6/29.1
31	JAMES E. BLAKE	14-10/11.1
32	JOHN J. HART ET UX	14-6/36
33	CARL W. YOHO ET AL	14-6/35.1
34	RODNEY J. & CARRIE L. FONNER	14-6/29
35	MARTIN D. FONNER JR. ET UX	14-6/29.2
36	CARL W. & BRIDGETT L. YOHO	14-6/28.1
37	JAMES E. CURRY	14-10/13
38	JOHN J. HART ET UX	14-10/14
39	JOHN J. & RENEE HART	14-10/19.1
40	CARL W. & BRIDGETT L. YOHO	14-6/28
41	JEFFREY D. & DENISE A. CRAMER	14-6/27
42	JOHN J. & RENEE HART	14-10/19
43	JOHN J. HART ET UX	14-10/18
44	ANNE E. MORRIS	14-6/26
45	JEFFREY D. & DENISE A. CRAMER	14-10/20
46	JOHN A. BIERCE ET UX	14-6/18.4
47	LEROY E. MEADOWS ET UX	15-8/4
48	LEROY E. MEADOWS ET UX	15-8/5.10
49	STEVE M. BONAR II	15-8/5.1
50	REX W. & JANET L. GARRISON	15-8/5
51	REX W. & JANET L. GARRISON	15-8/5.8
52	REX W. GARRISON	15-8/5.6
53	REX W. & JANET L. GARRISON	15-8/5.9
54	EDWARD D. & MALLORY J. FORDYCE	15-8/5.5
55	JOHN E. DRAKE ET UX	15-15/8.16
56	HEIKKI & TRISHA YEAGER	15-15/8.6
57	JOHN A. BIERCE II ET UX	15-15/3

08//14/2015

MARCH 13, 2014