

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452

Earl Ray Tomblin , Governor Randy C. Huffman , Cabinet Secretary www.dep.wv.gov

Wednesday, November 16, 2016 WELL WORK PERMIT Coal Bed Methane Well / Plugging

NORTHPORT PRODUCTION COMPANY 3501 FRENCH PARK DRIVE, SUITE B

EDMOND, OK 730347290

Re:

Permit approval for AMETHYST 1

47-047-02160-00-00

This well work permit 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 any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.

James A. Martin Chief

Operator's Well Number: AMETHYST 1

Farm Name: REYNOLDS, GREG

U.S. WELL NUMBER: 47-047-02160-00-00

Coal Bed Methane Well / Plugging

Date Issued: 11/16/2016

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

- 1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
- 3. Well work activities shall not constitute a hazard to the safety of persons.

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OCT 26 2016

WV Department of Environmental Protection

	**	
WW-1E Rev.		1) Date August 29rd , 20 16 2) Operator's Well No. AMETHYST#1 CBM
		3) API Well No. 47-64 - 0110
•	DEPARTMENT OF ENVI	EST VIRGINIA RONMENTAL PROTECTION OIL AND GAS
	APPLICATION FOR A PER	MIT TO FING AND ARANDON
4)	Well Type: Oil X / Gas / Liqui (If "Gas, Production X or Un	d injection/ Waste disposal/ derground storage) Deep/ Shallow
5)	Location: Elevation 1639 District SANDY RIVER	Watershed Johnnycake Branch of Tug Fork County McDowell Quadrangle AEGER 7.5
6)	Well Operator Northport Production Co. Address 3501 French Park Drive, Suite B	7) Designated Agent John Vaughan Address Same
	Edmond, OK 73034-7290	Address
8)	Oil and Gas Inspector to be notified Name Brian K. Ferguson	9) Plugging Contractor Name Francis Brothers, LLC
	Address 708 Manor Driva Beckley, WV 25801	Address 622 North Church Street
	5000103, 177 20001	Ripley, WV 25274
e*abminterpe	The state of the second of the second state of the second between the second state of the second state of the second seco	A STATE OF S
		ner of plugging this well is as follows: pit, Construct flowline from well to pit. Vac-Truck on site.
M	ORU service rig, cementing equipment and metal	pit, Construct flowline from well to pit. Vac-Truck on site.
RII	ORU service rig, cementing equipment and metal	pit, Construct flowline from well to pit. Vac-Truck on site. 1. 4-1/2* is CTS on records, Run CBI, confirming cement top in 4-1/2* annulus.
RII RI	ORU service rig. cementing equipment and metal with cable tools and verify TD Inside 4-1/2" casing at + or - 2000 F IH with tubing to 2000 Ft. and load it	pit, Construct flowline from well to pit. Vac-Truck on site. 1. 4-1/2* is CTS on records, Run CBI, confirming cement top in 4-1/2* annulus. 1. Ole with 6% gel.
RIII R	ORU service rig. cementing equipment and metal with cable tools and verify TD Inside 4-1/2" casing at + or - 2000 F IH with tubing to 2000 Ft. and load it pot 100 Ft. cement plug from 2000 F	pit, Construct flowline from well to pit. Vac-Truck on site. 1. 4-1/2* is CTS on records. Run CBI. confirming cement top in 4-1/2* annulus. Pole with 6% gel. 1. to 1900 Ft.
RIII R S P	ORU service rig. cementing equipment and metal with cable tools and verify TD Inside 4-1/2" casing at + or - 2000 F I. H with tubing to 2000 Ft. and load it pot 100 Ft. cement plug from 2000 F ull tubing to 1700 Ft. and spot ceme	pit, Construct flowline from well to pit. Vac-Truck on site. 1. 4-1/2' is CTS on records. Run CBI. confirming cement top in 4-1/2' annulus. Thole with 6% gel. 1. to 1900 Ft. 1. to 1900 ft. 1. to 1900 ft.
R R S P	ORU service rig. cementing equipment and metal with cable tooks and verify TD Inside 4-1/2" casing at + or -2000 F IH with tubing to 2000 Ft. and load if pot 100 Ft. cement plug from 2000 F ull tubing to 1700 Ft. and spot cemeut tubing to 100 Ft. and cement to s	pit, Construct flowline from well to pit. Vac-Truck on site. 1. 4-1/2* is CTS on records, Run CBI. confirming cement top in 4-1/2* annulus. Prole with 6% gel. 1. to 1900 Ft. 1. ant plug from 1700 Ft 950 Ft. 1. urface.
RIII R S P	ORU service rig. cementing equipment and metal with cable tools and verify TD Inside 4-1/2" casing at + or - 2000 F I. H with tubing to 2000 Ft. and load it pot 100 Ft. cement plug from 2000 F ull tubing to 1700 Ft. and spot ceme	pit, Construct flowline from well to pit. Vac-Truck on site. 1. 4-1/2* is CTS on records, Run CBI. confirming cement top in 4-1/2* annulus. Prole with 6% gel. 1. to 1900 Ft. 1. ant plug from 1700 Ft 950 Ft. 1. urface.
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MARINER RICHARD RICHAR	ORU service rig, cementing equipment and metal with cable tools and verify TD Inside 4-1/2" casing at + or - 2000 F I. H with tubing to 2000 Ft. and load if pot 100 Ft. cement plug from 2000 F ull tubing to 1700 Ft. and spot ceme ull tubing to 100 Ft. and cement to sect 4 Ft., 4-1/2" ID monument and to pply well ID tag with API#	pit, Construct flowline from well to pit. Vac-Truck on site. 1. 4-1/2' is CTS on records. Run CBI. confirming cement top in 4-1/2' annulus. Proof with 6% gel. 1. to 1900 Ft. 1. ant plug from 1700 Ft 950 Ft. 1. urface. 1. op off 4-1/2" casing with cement. 1. of c", Therefore were Section of
MARIE R S P P P P P P P P P P P P P P P P P P	ORU service rig. cementing equipment and metal with cable tools and verify TD Inside 4-1/2" casing at + or - 2000 F I. H with tubing to 2000 Ft. and load if pot 100 Ft. cement plug from 2000 F uill tubing to 1700 Ft. and spot ceme uill tubing to 100 Ft. and cement to strect 4 Ft., 4-1/2" ID monument and to pply well ID tag with API# LAKER MOST BE A MINIMUM DISSING ONTO 7" CASING RE	pit. Construct flowline from well to pit. Vac-Truck on site. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CBL confirming cement top in 4-1/2' annulus. 1.4-1/2' is CTS on records. Run CB

11/18/2016

WR-35

API#

047-047-02160C

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State of West Virginia DEPARTMENT OF ENERGY Division of Oil and Gas Well Operator's Report of Well Work

Farm Name: Marko Land	Op	erator We	ll No. An	nethyst #1	СВМ
Location: Elevation: 1639.00'	Quadrangle: Iaeger 7.5				
District: Sandy River	Co	unty: Mo	Dowell		
Latitude: 1,717 Feet South of	37 De	grees	30 Mi	nutes	0 Seconds
Longitude: 6,560 Feet West of	81 De	grees	47 Mi	nutes	30 Seconds
Company: Northport Production Company					
2601 NW Expressway St. Suite 902-E					
Oklahoma City, Oklahoma 73112		Casing	Used	Left	Cement
Agent: W. T. White		&	in	in	Fill Up
Inspector: Joe McCourt		Tubing	Drilling	Well	Cu. Ft.
Permit Issued: 6/23/2006	•	16"			
Well work Commenced: 2/20/2007	•	12 3/4"	22'	22'	
Well work Completed: 2/26/2007	• A	9 5/8"	524.0'	524.0'	330 cf
Verbal Plugging Permission granted on: N/A		7"	922.0'	922.0'	189 cf
Rotary X Cable Tool Rig	•	4 1/2"		2012.0'	301 cf
Total Depth (ft): LTD- 2072' DTD- 2071'				5	
Fresh Water Depths (ft): None					
Salt Water Depths (ft): None					
Is coal being mined in area: No					
Coal Depths: 1022', 1228', 1338', 1377', 1450', 1598', 164	42'				
OPEN FLOW DATA:					
Producing formation(s): See Page 2		Pa	y zone dep	th (ft)	See Page 2
Gas: Initial open flow No Show MCF/D	(Oil: Initial	open flow	0	Bbl/d
Final open flow No Show MCF/D		Final o	open flow	0	Bbl/d
Time of open flow between initial and fi			Hours		
Static rock pressure0psi	ig (surf	ace pressu	re) after	0	Hours
Second producing formation(s):		Pa	y zone dep	th (ft)	
Gas: Initial open flow MCF/D	(Oil: Initial	open flow	1	Bbl/d
Final open flow MCF/D		Final o	open flow		Bbl/d
Time of open flow between initial and fi	inal tes	ts:	Hours		
Static rock pressure psi	ig (surf	ace pressu	re) after		Hours
NOTE: ON THE BACK OF THIS FORM PUT T	HE FO	LLOWIN	G: 1). E	DETAILS	OF
PERFORATED INTERVALS, FRACTURING OR ST					
2.)THE WELL LOG WHICH IS A SYSTEMATIC					
ALL FORMATIONS INCLUDING COAL EN					
reconstruction in the contract of the Contract					

BY: Designated Agent Town Walter

DATE: 4-20-07

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OCT 2 8 2009

WV Department of Environmental Protection WR-35

API# 047-047-02160C Page 3

Formation Depths taken from Gamma Ray Log

Strata	Depths	Remarks
Overburden	0' 5'	
Sandy Shale	5' 50'	
Sandstone	50' 67'	Open hole not logged for "coals" before
Sandy Shale	67' 140'	setting 9 5/8" and 7" casings - Drillers' did not record
Sandstone	140' 210'	any "coals" while drilling hole.
Shale	210' 260'	
Sandstone	260' 320'	
Sandy Shale	320' 417'	
Sandstone	417' 446'	
Shale	446' 475'	
Sandstone	475' 496'	
Sandy Shale	496' 550'	
Sandstone	550' 610'	
Shale	610' 690'	
Sandy Shale	690' 827'	
Sandstone	827' 1020'	
Shale	1020' 1022'	
Coal	1022' 1027'	
Sand & Shale	1027' 1144'	
Sand & Shale	1144' 1200'	
Sand	1200' 1228'	
Coal	1228' - 1238'	
Sand & Shale	1238' 1338'	
Coal	1338' 1342'	
Shale	1342' 1377'	
Coal	1377' 1392'	
Sandstone	1392' 1418'	
Shale	1418' 1450'	
Coal	1450' 1454'	
Shale	1454' 1472'	
Sandstone	1472' 1598'	
Coal	1598' 1602'	
Shale	1602' 1642'	
Coal & Shale	1642' 1665'	
Sand & Shale	1665' 1736'	
Shale	1736' TD	

Total Depth: 2072' Well Logged by: Weatherford Wireline Services, Inc.

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OCT 2 8 2009

WV Department of Environmental Protection 11/18/2016

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OCT 2 6 2016

WV Department of Environmental Protection

WW-4A Revised 6-07		1) Dat 2) Ope	erator's Well Numb	er 16, 2016 er	
			AMETHYST#1 CBM		
		3) API	Well No.: 47	047 -	02160
DE	STATE OF PARTMENT OF ENVIRONMENTAL NOTICE OF APPLICATION	WEST VIRGI L PROTECT TO PLUG AM	ION, OFFICE OF	OIL AND GAS WELL	
4) Surface Own	ner(s) to be served: 5) (a)	Coal Operator	44		
(a) Name	William Davis, Jr. and Linda Davis	Name			
Address	150 Beaver Springs Lane	Address			
	Clover, SC 29710	,			
(b) Name	Arthur Thornsberry and Virginia M. Thornsberry	(b) Coal	Owner(s) with Decl	aration	
Address	HCR 60 Box 180	Name	Marco Land Co.		
	laeger, WV 24844	Address	P.O. Box 1223	/	
			Iaeger, WV 24844		
(c) Name	Tug Fork Land Co.	Name			
Address	P.O. Box 542	Address			
	Welch, WV 24801				
6) Inspector	Brian Ferguson	to com be	ssee with Declaration	on	
Address	708 Manor Drive	Name			
	Beckley, WV 25801	Address			
Telephone	304-550-6265				
(2) The The reason However, Take notic accompan Protection the Appli	its and the plugging work order; and plat (surveyor's map) showing the well location on you received these documents is that you have rights you are not required to take any action at all, be that under Chapter 22-6 of the West Virginia Code, to ying documents for a permit to plug and ahandon a well, with respect to the well at the location described on tration, and the plat have been mailed by registered or cumstances) on or before the day of mailing or delivery	he undersigned well with the Chief of the attached Applica certified mail or de	I operator proposes to file of the Office of Oil and Gas, V	or has filed this Notice West Virginia Departmentached Form WW-6. C	and Application and nt of Environmental opies of this Notice,
	Well Operator	Nonthe	nt Product	ion Comp	any
	By:	2			
	Its:	Vice F	resident		
	Address	3501 F	ainch Pan)	12 Drive,	te 15
	m. I l	Edmon	The state of the s	75	
	Telephone _	405.84	871212		
0	1 10th	(
Subscribedon	d sworn before me this 19 day o	of DE PTE	mbin (Q)	Lance	
XO	LUCY ON THE STATE OF THE STATE		Not ry P	ublic P. DYKE HO Notary Put	
My Commissio	on Expires 2/23/19			State of Okla	
Oil and Gas Pri	vacy Notice		1	Commission # 0	3000486
	**************************************			y Commission Expire	
regulatory dutie business or as n office will appro	Il and Gas processes your personal informat is. Your personal information may be disclo seeded to comply with statutory or regulato priately secure your personal information. ease contact DEP's Chief Privacy Officer at	sed to other St ry requirement If you have any	ate agencies or third s, including Freedom q questions about our	of Information Ac	t requests. Our

WW-4A Suppler Revised 6-07	nental Page (#1)	1) Da 2) O _I	ate: <u>Septembe</u> perator's Well Numb AMETHYST #1 CBM	
		3) AP	I Well No.: 47 -	047 - 02160
DI	STATE C EPARTMENT OF ENVIRONMENT NOTICE OF APPLICATION		ION, OFFICE OF	
4) Surface Ow	ner(s) to be served: 5) (a	Coal Operator	r	
(a) Name	Greg Reynolds & Holly Reynolds	•		
Address	P. O. Box 614	Address		
	Iaeger, WV 24844	-		
400	/		0.8	
(b) Name	Nancy Stacy	(b) Coal	Owner(s) with Decla	aration /
Address	P.O. Box 170	Name	Marco Land Co.	
	Justice, WV 24851	Address	P.O. Box 1223	/
			Iaeger, WV 24844	
(c) Name	Judith Lawson & Charles Lawson	Name		
Address	HCR 68 Box 58	Address		
	laeger, WV 24844	-		
6) Inspector	Brian Ferguson	(c) Coal La	ssee with Declaratio	2
Address	708 Manor Drive	Name	sace with Deciaratio	
11441635				
Telephone	Beckley, WV 25801 304-550-6265	Address		
well (2) The The reason However, Take notic accompany Protection the Applic	application to Plug and Abandon a Well on For- its and the plugging work order; and plat (surveyor's map) showing the well location it you received these documents is that you have right you are not required to take any action at all. be that under Chapter 22-6 of the West Virginia Code, rying documents for a permit to plug and abandon it we, with respect to the well at the location described on tation, and the plat have been mailed by registered or communication.	on Form WW-G, is regarding the applica- the undersigned well il with the Chief of the the attached Applicat- certified mail or del	cation which are summarized operator proposes to file or the Office of Oil and Gas, We toon and depicted on the attact.	I in the instructions on the reverses side has filed this Notice and Application and st Viginia Department of Environmental shed Form WW-6. Copies of this Notice.
	Well Operator By: Its: Address Telephone	Nonthe VIO PA 3501 F Emous 405-8	DOOT PRODUCT DINCH PRODUCT OK 7303-	Daire, Ste B
a. a.	swarn before me this 19+ day	of SEpte.	mben 2016 Notary Pub	TIC P. DYKE HOPPE
Subscribed and			4	L DIVE UDLA
Role	n Expires 2/23/19			Notary Public
Rille	()			Notary Public State of Oklahoma Commission # 03000486
My Commission	()	ion, such as nam	ne, address and n	State of Oklahoma

11/18/2016

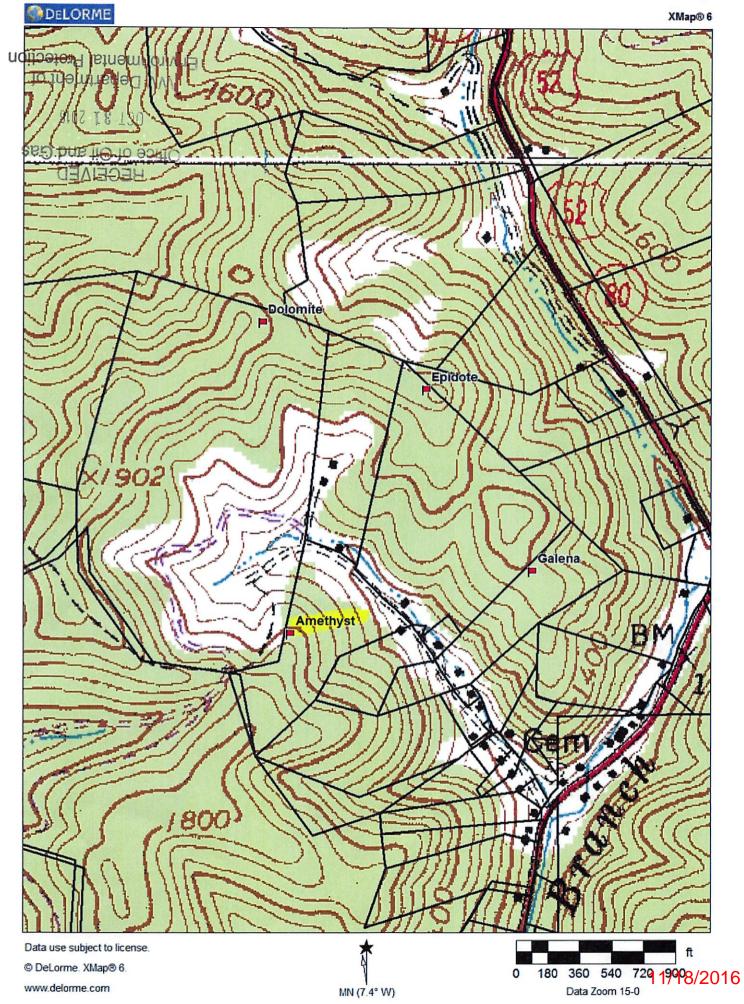
WW-4A Supple	mental Page (#2)	1) D
Revised 6-07	montal rage (#2)	1) Date: <u>September 16, 2016</u>
		2) Operator's Well Number
		AMETHYST #1 CBM
		0) 4 DV W. 11 AV 4 4 7
		3) API Well No.: 47 - 02160
	STATE	OF WEST VIRGINIA
D	EPARTMENT OF ENVIRONMEN'	TAL PROTECTION, OFFICE OF OIL AND GAS
	NOTICE OF APPLICATIO	ON TO PLUG AND ABANDON A WELL
		TO THE
Surface Ov	vner(s) to be served: 5) ((a) Coal Operator
(a) Name	Frank Roberts and Brenda Robert	ts Name
Address	P.O. Box 1051	Address
	Iaeger, WV 24844	
(b) Name	Charles Lawson and Sandi Lawson	(b) Coal Owner(s) with Declaration
Address	P.O. Box 745	Name Marco Land Co.
	Iaeger, WV 24844	Address P.O. Box 1223
		laeger, WV 24844
(c) Name	Russell King	Name
Address	HCR 68 Box 96	Address
		Address
6) Inspector	Ineger, WV 24844	
Address	Brian Ferguson	(c) Coal Lessee with Declaration
Audress	708 Manor Drive	Name
(I) - 1 1	Beckley, WV 25801	Address
Telephone	304-550-6265	
ma		
TO THE PE	ERSONS NAMED ABOVE: Yo	ou should have received this Form and the following documents:
(1) The	application to Plug and Abandon a Well on For	rm WW-4B, which sets out the parties involved in the work and describes the
	plat (surveyor's map) showing the well location	
The reason	you received these documents is that you have right	its regarding the application which are summarized in the instructions on the reverses side.
However.	you are not required to take any action at all.	and appreciated which are sommarized in the instructions on the reverses side.
Take notic	that under Chanter 32-6 of the West Vissiaio Code	
accompany	ing documents for a permit to plug and abandon a w	. the undersigned well operator proposes to file or has filed this Notice and Application and ell 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	on win the Chief of the Office of Oil and Gas, West Virginia Department of Environmental is the attached Application and depicted on the attached Form WW-6. Copies of this Notice, we certified mail or delivered by the contribution of
the Applie	ation, and the plat have been mailed by registered of	or certified mail or delivered by hand to the person(s) named above (or by publication in
certain ene	sumstances) on or before the day of mailing or deliver	y to the Chief.
		. 1
	Well Operator	NONTHANT PRODUCTION COMPANY
	By:	90
	Its:	Vide Possident
	Address	350) French Park Da Sto?
		Former Ok 72024
	Telephone	US-840-1212
		17 010 1616
Subscribed and	sworp before me this 19+ day	of September 2016
	er day!	
My Commission	Expires 3/23/16	Notary Public
D	0/25/19	P. DYKE HOPPE
Oil and Gas Priva	cy Notice	Notary Public
		State of Oklahoma Commission # 03000486
regulatory duties	Your personal informat	cion, such as name, address and pho te mix Several sign Explosive Peb 23, 2019
business or as nee	ded to comply with statutors as	that agencies of that parties in the normal actions
office will appropr	iately secure your personal information	ry requirements, including Freedom of Information Act requests. Our
miormation, pleas	e contact DEP's Chief Privacy Officer at	depprivacyoffier awv.gov.

DELORME XMap® 6 Dolomite Epidote Galena Amethyst Data use subject to license © DeLorme. XMap® 6. 180 360 540 **12P/198/2016**Data Zoom 15-0 www.delorme.com MN (7.4° W)

WW-9 API Number 47 - 047 (5/16) Operator's Well No. Amethyst-#1 STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS PLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN Operator Name Horthport Production Company Ol' Code NA Watershed (HUC 10) Johnnycoke Brench of Tug Fork Quadrangle LAEGER 7.5 Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes Will a pit be used? Yes No If so, please describe anticipated pit waste: Less than 20 BBLS. Metal Pit to gather any overflow Will a synthetic liner be used in the pit? Yes No If so, what ml.? Proposed Disposal Method For Treated Pit Wastes: Land Application (if selected provide a completed form WW-9-CPP) Underground Injection (UIC Permit Number 34-105-2-3819 SWW #19 Rouse (at API Number Off She Disposal (Supply form WW-9 for disposal location) Other (Explain Will closed knop systembe used? If so, describe: JU Stripping Head With Flow Line to Metal Pit Drilling medium onticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Claza A Camonta 5% Bontonio Gol -If oil based, what type? Synthetic, petroleum, etc. NA Additives to be used in drilling medium? Class A Content and 6% Gel for Plugging Material Only Orill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. No Cuttings involved. 6% Gel From Displacement Only -If left in pit and plan to solidify what medium will be used? (coment, lime, sawdust) No Solida involved. -Landfill or offsite name/permit number? NA Permittee shall provide written notice to the Office of Oil and Cas 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 POLLLITION PERMIT is used on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the pennit 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 penalities for submitting fairs information, including the possibility of fine or imprisonment. Company Official Signature Company Official (Typed Name) JOHN VAUGHAN Company Official Tale Augus) 20 /6 Notary Public 2.23.19 P. DYKE HOPPE Notary Public State of Oldshoma Commission # 03000486

My Commission Expires Feb 23, 2019

m W V - 9		o	perator's Well No.	Amethyst-#1
posed Revegetation Tree	alment: Aeres Disturba	d 1 Preve	egewion pH	h . 400
Lime 2	Tous/acre or to	6.5 Hq os somo:	-	·
Fertilizer type 19-	-19-19			
Fertilber amount	1 <i>1</i> 3 Tons	ibs/acro		
Mulch 60 Bales	;	Tons/acro		
				•
		Seed Mixtures		
. T	emporary		Permanent	•
Seed Type	lbs/ecre	Seed T	'ypc	ibs/scre
		KY	31	40
		Ladino Clov	er	5
		Annual R	ve	15
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WW-7 8-30-06



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

API: 47-47-02160-C WELL NO .: AMETHYST #1
FARM NAME: REYNOLDS
RESPONSIBLE PARTY NAME:
COUNTY: Madowace DISTRICT: SANDY RIVER
QUADRANGLE: /ACGER
SURFACE OWNER: GRELORY JOSEPH REYNOLDS - HOLLY DAWN REYNOLDS
ROYALTY OWNER: MARCO LANS CO
UTM GPS NORTHING: 4149828 MN (639)
UTM GPS EASTING: 428037 ME GPS ELEVATION: 797.59
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 Office of Oil and Gas Real-Time Differential
Mapping Grade GPS ×: Post Processed Differential
Real-Time Differential
Signature Operation Rev 10/29/16 Title Date