

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 Jim Justice , Governor Austin Caperton , Cabinet Secretary www.dep.wv.gov

Tuesday, May 02, 2017 WELL WORK PERMIT Vertical / Plugging

EQT PRODUCTION COMPANY (A) 120 PROFESSIONAL PLACE BUILDING II BRIDGEPORT, WV 26330

Re: Permit approval for B-2 47-067-00107-00-00

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: B-2 Farm Name: JOHNSON, E. M.

U.S. WELL NUMBER: 47-067-00107-00-00

Vertical / Plugging

Date Issued: 5/2/2017

Promoting a healthy environment.

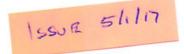


PERMIT CONDITIONS

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

CONDITIONS

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





Form WW-4 (B) Permit Copy (Rev 2/01)
 Date:
 March 24, 2017

 Operator's Well
 Well No.

 47
 067

 47
 007

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

CK# 22593

	OFFICE OF OIL AND GAS							
	APPLICATION FOR A PERMIT TO PLUG AND ABANDON							
4)	Well Type: Oil Gas X Li			sal:				
	If Gas, Production X Or Undergro	ound storage	Deep	Shallow _	X			
5)		Jerry's Fork		011 7.5				
	Location: Grant County: District:	Nicholas	Quadrangle:	Gilboa 7.5				
6)	EQT Production Company		ed Agent: Rex C					
	Well Operator 120 Professional Place Address: Bridgeport, WV 26330	_ Address:	120 Professional Bridgeport, WV 2					
8)	Address. <u>Bridgeport, 444 20000</u>	- 9) Plugging		.0000				
o)	Oil & Gas Jeremy James	Name:	HydroCarbon Well S	Service				
	Name: P. O. Box 36	Address:	PO BOX 995					
	Address: Clendenin, WV 25045	_	Buckhannon, WV 2	6201				
10	Work Order: The work order for the manner of See Attachment for details and procedures.	plugging this well is	as follows:					

OFFICE USE ONLY
Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence. Date 4-24-17 Work order approved by inspector
vvoik order approved by inspector

PLUGGING PROGNOSIS

Johnson B-2 (127641) API# 47-067-00107 District, Grant Nicholas County, WV

BY: R Green DATE: 11/15/16

CURRENT STATUS:

TD @ 1821' Elevation @ 1364'

14" conductor @ 33'
10 3/4" casing @ 657'
8 1/4" casing @ 1189' (Pulled)
7" casing @ 1576'
3 ½" @1813', (Hanging on packer @ 1579')
5 ½" liner 242' (Setting on bottom)

Fresh Water @ 1100'
Saltwater@ 1130'
Oil Show @ None Reported
Gas shows @ 1605' to 1770'
Coal @ 443'to 446'

- Notify inspector, Jeremy James, @ 304-951-2596, 24 hrs. prior to commencing operations.
- 2. TIH check TD, Attempt to release and TOH 3"X 5" packer and tubing.
- 3. If successful releasing packer and TOOH tubing, go to step 5.
- Note* If unable to release packer and TOOH packer and 3" tubing, proceed to step # 13.
- TIH, perforate 5" liner and 7" casing with 4 holes each @ 1750',1700',1650',1600', 1550', & 1500', 1450', 1400, 1350'
- 6. TIH to 1800', spot 20 bbl. of 6% gelled water, then set 500' C1A cement plug 1800' to 1300'. WOC 8 hrs., Tag TOC, add additional C1A cement if necessary. (Elevation, top of 5" liner & 7" casing seat)
- 7. Free point 7" casing, cut casing at free point and TOOH casing.

- Set 100' C1A cement plug 50' in/out of casing cut, perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs. Gel hole to next plug.
- TOOH to 1200', set 200' C1A cement plug 1200' to 1000' (8 ¼" casing seat, freshwater).
- 10. TOOH to 1000', gel hole 1000'to 700', set 100' C1A cement plug 700' to 600'. (10" casing seat).
- 11. Free point and cut 10" casing, TOOH casing, set 100' C1A cement plug 50' in/out of casing cut. Perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs. Gel hole to next plug.
- 12. TOOH to 350', set 350' C1A cement plug 350' to surface. Note* If unable to cut and pull 10" casing, TIH and perforate 10" casing with 4 holes each @ 350',250',150',100'. Set 350' C1A cement plug 350' to surface
- 13. TIH perforate 3" tubing & 5" liner with 3 holes each @ 1750', 1700', 1650' 1600', Set 150' C1A cement plug, 1750' to 1600', WOC 8hrs, Tag TOC add additional C1A cement if necessary.
- 14. TIH cut 3" tubing at top of packer, TOOH tubing, TIH perforate 7" casing with 4 holes each @ 1500, 1450', 1400', & 1350', Set 279' C1A cement plug, 1579' to 1300'. Continue to step #9.
- Erect monument with API#, date plugged, company name, and company 6digit ID#.
- 16. Reclaim location and road to WV-DEP specifications.

WEST VIRGINIA DEPARTMENT OF MINES OIL & GAS DIVISION WELLERECORD

Permit No. Nic 107 Summersville Quad. Company Address Farm Location Well No. District Surface Mineral Commenced Gompleted Not shot Acidized Open flow Volume Rock Fressure Fresh Water Salt Water	Box 87 E-M. 17 Fitzwar 2G. 11 Grant E-M. 10 Charles Same 1010.4 11254 6/10ths 858,000 550 lbs 35: E.F	Nichclas County Chnson, 704 Union Eldge, ston, WeVae 19 19 19 with 1000 gale acid is is in 3" C.F. 14 48 hrse	Gas Well CASING & TUBING 14 33 6 33 6 10 40: 657 5 Same 8 2: 189 2 Fld. 7 23: 1576 5 Same 3 7.7 1813 6 Samo with 3" cago 5 15: 242 3 Samo Gas Ancher Packer Sizo 7 x 3 x 5 2 Depth 1579 Coal at 443 36"
Soil Sand Slate Lime Sand Slato Lime Sand Slate Sand Coal Sand Slate & Shells Sand 642 PLL 542 SLM Slate & Shells Sand Slate Red Lime Grey Lime Send Slate Sand Slate Red Rock	0 10 48 106 111 151 195 225 277 373 443 446 482 592 707 772 809 832 842 879 904 1062 1167	10 48 106 111 151 195 225 277 373 443 446 482 692 707 772 809 832 842 879 904 1062 1167 1180	
Slate & Shells 1181'Did-1 Red Rock Slate Red Rock Sand Slate Little Lime Slate & Fencil Cave Lime Slate & Fencil Cave Big Lime 1567'DIM-1563'SL Red Lime Total depth	1204 1300 1318 1414 1430 1472 1503 1513 1520	180 1204 1300 1313 1414 1430 1472 1503 1513 1520 1561 DLM 1657 SLM 1821 1821	

Gas rays:
1605.06 16/10 W 1" 42,160 C.F.
1625.52 9/10 W 2" 127 M
1695-76° 11/10 W 2" 140 M
1695-1707 6/10 W 2" 103 M
17182 9/10 U 2" 127 M
17701 2/16 W 2" 127 M

CEMENT RECORD:

10-26-49 102" casing not aquagelled.

11-4-49 8 5/8" cathernot aquagelled.

11-11-49 7 " casing not aquagelled. Gas

Columbian Carbon Company Craw

MAR 3 0 2017





WW-4-A				
Revised 6/07				

1) Date: March 24, 2017
2) Operator's Well Number 127641 (Johnson B-2)
3) API Well No.: 47 067 - 00107

County

Permit

State

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
NOTICE AND APPLICATION TO PLUG AND ABANDON WELL

4)	Surface Owner(s	s) to be served:	5) (a) Coal	Operator:
	(a) Name	Boone East Development Corporation	Name	None
	Address	300 Running Right Way	Address	
		Julian, WV 25529		
	(b) Name		(b) Coal Ow	vner(s) with Declaration
	Address		Name	Contura Energy, Inc.
				158 Portal Road
			Address	P. O. Box 1020
				Waynesburg, PA 15370
	(c) Name		Name	
	Address		Address	
3)	Inspector	Jeremy James	(c) Coal Les	ssee with Declaration
	Address	P. O. Box 36	Name	None
		Clendenin, WV 25045	Address	
	Telephone	(304) 951-2596		

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 Division 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.

	Vell Operator:	EQT Produ	uction Compa	$\frac{1}{2}$
В	y:	Victoria J.	Roark	11119 11/1
	s:	Permitting	Supervisor	00
A	ddress:	PO Box 28		
		Bridgepor	t, WV 26330	U
T	elephone:	(304) 848-0		
Subscribed and sworn before me the	ster of Chistre	day of	March	, <u>2017</u> Notary Public
My Commission Expires:	0	2/20	18	

The Office of Oil & Gas processes your personal information, such as name, address and phone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal 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.





~	576	U.S. Postal Service [™] CERTIFIED MAIL [®] RECE Domestic Mail Only For delivery information, visit our website at	
		OFFICIAL	II S E
EB	5639	Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate)	12
0000	0000	Return Receipt (nardcopy) \$	Postmark Here
7.	2740	Postage \$ Total / Boone East Development Cor	poration
	7076	Sent 300 Running Right Way	
•		Plugging Permit #127641	

	mestic Return Receipt		PS Form 3811, July 2015 PSN 7530-02-000-9053
	☐ Signature Confirmation ☐ Signature Confirmation ☐ Restricted Delivery	57 L Selivery Restricted Delivery (over \$500)	2. Article Number (Transfer from confice No. 5 Article Number (Tra
	Priority Mail Express® Thouse Mailm Theglestered Mail Restricted Delivery The Broad Mail Restricted The	Adult Signature Adult Signature Adult Signature	11 8578 9089 1392 2076 0696
			Plugging Permit #127641
			300 Running Right Way Julian, WV 25529
		D, is delivery address different from If YES, enter delivery address be	1. Article Addressed to: Boone East Development Corporation
61000	C, Date of Delivery	B. Received by (Printed Name)	so that we can return the card to you. or on the front if space permits. or on the front if space permits.
	eesserbbA 🗆	xII	Print your name and address on the reverse

action 280 t, WV 26330

See Reverse for Instructions	Contura Energy, Inc. 158 Portal Road Soni To P. O. Box 1020 Sinei and Waynesburg, PA 15370 City, Siale, Plugging Permit #127641 PS Form 3800, April 2015 PSN 7550-02-00-0047	04T2 9T02	
Postmark Here	Certified Mail Fee \$ Extra Services & Fees (check box, add tee as appropriate) Extra Services & Fees (check box, add tee as appropriate) Beturn Receipt (electronic) Beturn Receipt (electronic) Certified Mail Restricted Delivery \$ Adult Signature Required Adult Signature Required Postage	0 0000 5639 0 0000 5639	
at www.usps.com".	U.S. Postal Service ¹⁷ CERTIFIED MAIL® REC Domestic Mail Only For delivery information, visit our website	0583	



WW-9 Revised 5/16

Page of			
2) Operator's Well Number			
127641 (Johnson	B-2)		
3) API Well No.:	47	067 -	00107

My Commission Expires Labruary 19, 2016

STATE OF WEST VIRGINIA **DEPARTMENT OF ENVIRONMENTAL PROTECTION** OFFICE OF OIL & GAS

FLUIDS / CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name:	EQT PRODUCTION COMPANY		OP CODE:	306686
Watershed (HUC 10):	Jerry's Fork		Quadrangle:	Gilboa 7.5'
Do you anticipate using me	ore than 5,000 bbls of water to comple	e the proposed		Yes No_X_
•	Control of the contro		E El. 1.1-	
		le en i		40 ml 7.0 m
		15 50,	Wildt IIII. !	10-1111 20 1-111
1.70		vide a complet	ed form WW-9-GPP)	
)
X			***************************************)
X	Oth /F1-'			
Will closed loop system be	used ? If so, describe:			
- ·				
The account of the second second St. Second				
where it was properly dispose		nours or rejection	on and the permittee shall als	30 disclose
		f th - OFNE	DAL WATER ROLLLITIO	N DCDMIT issued as
provisions of the permit are	e enforceable by law. Violations of any			
Company Official Sig	gnature	1/10	116	
Company Official (Ty	titicipate using more than 5,000 bbls of water to complete the proposed well work? Yes No be describe anticipated pit waste: Formation Fluids thetic liner be used in the pit? Yes No Is so, what ml.? 19			
Company Official Titl	le Permitting Supervisor - W	V		
Subscribed and sworn	before me this	day of	March	, 2017
			(Notary Publ	19 3
My Commission Expire	22	0/8 \$ NO	STATE OF WEST	
		SIA	Misty S	nistie > 05/05/2017

			OPERATOR'S WELL NO.: 127641 (Johnson B-2)
	LE	GEND	
Property Boundary		Diversion	
		Spring	Wet Spot
Road		\circ	み
Planned Fence	Drain Pipe	with size in inches	Water Way
//		- 13 	€→€ →
Existing Fence	Stre	,	Cross Drain
Open Ditch	Artificie	ul Filter Strip	Rock
	 ▶···-	XXX	ඉදිදිද ිදි
North	Building	Water well	Drill site
N		w	\oplus
Pit with Cut Walls	Pit with Con	npacted Walls Area o	f Land Application of Pit Waste
	سسن	 -	
Exposed Revegetation Treatment Lime 3 Fertilizer (10-20-20) or equiv	Tons/acre or to correct to p	H <u>6.5</u> 1/3 ton	_ lbs/acre (500 lbs minimum)
Mulch 2	_Tons/acre or hydroseed.		
	SEED MIXTU	JRES .	
Area I			Area II
Seed Type	ibs/acre	Seed Type	ibs/acro
Red Fescue	40	Red Fescue	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		
ATTACH: Drawing(s) of road, location, pii Photocopies section of involved Plan approved by: Comments:	t and proposed area for land app d 7.8 topographic sheet.	olication.	
Title:	006 YesNo	Date: <u>4-24-7</u>	7

EQT Production Water plan Offsite disposals

Waste Management - Meadowfill Landfill

Rt. 2, Box 68 Dawson Drive Bridgeport, WV 26330 304-326-6027 Permit #SWF-1032-98 Approval #100785WV

Waste Management - Northwestern Landfill

512 E. Dry Road Parkersburg, WV 26104 304-428-0602 Permit #SWF-1025 WV-0109400 Approval #100833WV

6700107P

Topo Quad: Gilboa 7.5' 1" = 200' Scale: County: Nicholas Date: February 27, 2017 Grant District: Project No: 58-01-00-07 Topo 47-067-00107 WV 127641 (Johnson B-2) Pit Location Topo **Existing Well** Access Road 47-067-00107 WV 127641 **LEGEND** NAD 27, South Zone N: 472957.25 E: 2006743.62 PIT-CUT WALLS PIT-COMPACTED WALLS WGS 84 LAT: 38.298982 WO LAND APP. LONG: -80.976325 ELEV: 1345.69 Office of O SURVEYING AND MAPPING SERVICES PERFORMED BY: PREPARED FOR: ALLEGHENY SURVEYS, INC. **EQT Production Company** P.O. |Box 280 Bridgeport, WV 263302017 1-800-482-8606 237 Birch River Road Birch River, WV 26610 PH: (304) 649-8606 FAX: (304) 649-8608

6700107P

05/05/2017

Topo Quad: Gilboa 7.5' 1" = 500' Scale: **Nicholas** County: Date: February 27, 2017 District: Grant Project No: 58-01-00-07 Highway 47-067-00107 WV 127641 (Johnson B-2) Pit Location Map **Haul Road Existing Well Access Road** 47-067-00107 WV 127641 **LEGEND** NAD 27, South Zone N: 472957.25 E: 2006743.62 PIT-CUT WALLS PIT-COMPACTED WALLS **WGS 84** LAT: 38.298982 NO LAND LONG: -80.976325 ELEV: 1345,69 Oil and Gas SURVEYING AND MAPPING SERVICES PERFORMED BY: PREPARED FOR: **EQT Production Company** ALLEGHENY SURVEYS, INC. P.O. Box 280 Bridgeport, WV 26330 1-800-482-8606 237 Birch River Road Birch River, WV 26610 Environmental pr PH: (304) 649-8606 FAX: (304) 649-8608

05/05/2017

Topo Quad: Gilboa 7.5' 1" = 2000' Scale: **Nicholas** County: February 27, 2017 Date: District: Grant Project No: 58-01-00-07 Topo 47-067-00107 WV 127641 (Johnson B-2) 47-067-00107 WW 127641 CR-39/38 NAD 27, South Zone N: 472957.25 Keenan Cem E: 2006743.62 REEN AN CEMETERY WGS 84 LAT: 38.298982 LONG: -80.976325 ELEV: 1345.69)il and Gas SURVEYING AND MAPPING SERVICES PERFORMED BY: PREPARED FOR: ALLEGHENY SURVEYS, INC. EQT Production Company P.O. Box 280 Bridgeport, WV 26330 1-800-482-8606 237 Birch River Road invironmental P Birch River, WV 26610 PH: (304) 649-8606 FAX: (304) 649-8608



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

API: 47-067-00107 WELL NO.: WV 127641 (Johnson B-2)
FARM NAME: E. M. Johnson
RESPONSIBLE PARTY NAME: EQT Production Company
COUNTY: Nicholas DISTRICT: Grant
QUADRANGLE: Gilboa 7.5'
SURFACE OWNER: Boone East Development
ROYALTY OWNER: Energen Resources Corporation
UTM GPS NORTHING: 4238989
UTM GPS EASTING: 502070 GPS ELEVATION: 410 m (1346 ft)
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
3. Data Collection Method:
Survey grade GPS: Post Processed Differential Real-Time Differential
Mapping Grade GPS X : Post Processed Differential X Real-Time Differential
4. Letter size copy of the topography map showing the well location.
the undersigned, hereby certify this data is correct to the best of my knowledge and
pelief and shows all the information required by law and the regulations issued and
prescribed by the Office of Oil and Gas.
San Osan 15 = 2180 RECEIVED RECEIVED 3/2/17 Oil and Gas
Signature Title Date MAR 3 0 2017
WV Department of Environmental 105/05/2017
3.50(10)]



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT:EQT PRODUCTION COMPANY	
LEASE NAME AND WELL No. <u>Johnson B-2 WV 127641 47-067-00107</u>	
POTENTIAL SAMPLE LOCATIONS	
Site: 1 Spacing:376 +/- Owner: Power Mountain Contura LLC	
Address: P.O. Box 707, Summersville, WV 26651 Phone No.	
Comments: Pond	

BIRCH RIVER OFFICE

237 Birch River Road Birch River, WV 26610 phone: 304-649-8606 fax: 304-649-8608 BRIDGEPORT OFFICE

172 Thompson Drive Bridgeport, WV 26330 phone: 304-848-5035 fax: 304-848-5037 ALUM CREEK OFFICE P.O. Box 108 • 1413 Childress Rd Alum Creek, WV 25003 phone: 304-756-2949

fax: 304-756-2948

DECENSEURG OFFICE
25 Lights Addition Drive
Martinsburg, WV 2540 AS
MARKON, 304-901-2162
fax, 304-901-2182

ALLEGHENYSURVEYS.COM

05/05/2017

Gilboa 7.5' 1" = 2000' Topo Quad: Scale: **Nicholas** February 27, 2017 Date: County: Grant Project No: 58-01-00-07 District: Water 47-067-00107 WV 127641 (Johnson B-2) (1) Potential Water Source within 1000' 47-067-00107 WV 127641 NAD 27, South Zone N: 472957.25 Keenan Cem E: 2006743.62 WGS 84 TELL Z LAT: 38.298982 LONG: -80.976325 ELEV: 1345.69 RECEIVED SURVEYING AND MAPPING SERVICES PERFORMED BY: PREPARED FOR: **EQT Production Company** ALLEGHENY SURVEYS, INC. P.O. Box 280 Bridgeport, WV 26330 2017 1-800-482-8606 237 Birch River Road Birch River, WV 26610 PH: (304) 649-8606 FAX: (304) 649-8608