

#### 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

Austin Caperton, Cabinet Secretary www.dep.wv.gov

Friday, April 19, 2019 WELL WORK PLUGGING PERMIT Vertical Plugging

EQT PRODUCTION COMPANY 625 LIBERTY AVE., SUITE 1700

PITTSBURGH, PA 15222

Re: Permit approval for LANTZ 9 47-103-02433-00-00

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.

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. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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: LANTZ 9

Farm Name: WV CONSERVATION COMM

U.S. WELL NUMBER: 47-103-02433-00-00

Vertical Plugging Date Issued: 4/19/2019

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.
- 4. This well is under a consent order and must be plugged under the terms of that agreement.

WW-4B Rev. 2/01

1) Date December	<sup>2</sup> <b>0</b> <sup>4</sup> / <sub>9</sub> 19/2019	
2) Operator's		0 <del>4/13/2</del> 013
Well No. 51905	1 Lantz #9	
3) API Well No.	47-103	- 02433

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

4) Well Type: Oil/ Gas X/ Liquid	MIT TO PLUG AND ABANDON
	d injection / Waste disposal /
{If "Gas, Production or Unc	derground storage) Deep/ ShallowX
5) Location: Elevation 1198	Watershed Buffalo Run
District Grant	County Wetzel Quadrangle Pine Grove
FOT Production Co.	
6) Well Operator EQT Production Company	7) Designated Agent Jason Ranson
Address 2400 Ansys Drive- Suite 200	Address 120 Professional Place
Canonsburg PA 15317	Bridgeport WV 26330
8) Oil and Gas Inspector to be notified	9) Plugging Controlly
Name Derek Haught	9) Plugging Contractor  Name HydroCarbon Well Service
Address PO Box 85	
Smithville WV 26178	Address PO Box 995
	Buckhannon WV 26201
	RECEIVED
	RECEIVED Office of Oil and Gas
	Office of Oil and Gas

#### PLUGGING PROGNOS

519510 Lantz #9 API# 47-103-02433 District, Grant Wetzel County, WV

BY: R Green DATE: 01/19/18

CURRENT STATUS:

TD @ 6892' Elevation @ 791'

20" casing @ 20'
13 3/8" casing @ 473' (CTS)
9 5/8" casing @ 1403' (CTS)
7" casing @ 2224' (cemented with 250 sks)
4 ½" casing @ 6890' (cemented with 100 sks)

Fresh Water @ 88'
Saltwater@ 908'
Oil Show @ None reported
Gas shows @ None reported
Coal @ 88', 96', 420'

### \* MUST HAVE GEL SPACES BETWEEN CLASS A CEMENT PLUCS. GIVE

- 1. Notify inspector Derek Haught @ 304-206-7613, 24 hrs. prior to commencing operations.
- 2. TIH check TD @ or below 6800'.
- TIH to 6800', spot 40 bbl. of 6% gelled water followed by a 300' C1A cement plug 6800' to 6500'. WOC 8 hrs. Tag TOC, add additional C1A cement if necessary.
- 4. Free point 4 1/2" casing, cut casing @ free point(EST @ 5900'). TOOH 4 1/2" casing.
- 5. Set a 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.
- 6. TOOH to 5000' set a 200' C1A cement plug 5000' to 4800' (Benson & Riley sand).
- 7. TOOH to TOOH to 2700' set a 200' C1A cement plug 2700' to 2500' (Gordon sand).
- 8. TOOH to 2300' set a 200' C1A cement plug 2300' to 2100' (7"casing seat).
- 9. Free point 7" casing, cut casing @ free point(EST @ 1690'). TOOH 7" casing.
- Set a 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.
- 11. TOOH to 1450' set a 100' C1A cement plug, 1450' to 1350' (9 5/8" casing seat).
- 12. TOOH to 950' set a 100' C1a cement plug 950' to 850' (Saltwater).
- 13. TOOH to 500' set a 500' C1A cement plug 500' to surface. (13 3/8" casing seat, coal, & freshwater.)
- 14. Erect monument with API#, date plugged, & company name.
- 15. Reclaim location and road to WV-DEP specifications.

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Office of Oil and Gas

MAR 4 2019

2/01/09 API#: 47-103-02433 04/19/2019

Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work							
Farm name: MILLS WETZEL WY COUS	CEMM Oper	ator Well No.:	LANTZ :	#9	_ 4		
LOCATION: Elevation: 788	Quad	Irangle:	NE GROU	F. 7.5	_		
District: GRANT County: WETZEL							
District: GRANT County: WFT2FL  Latitude: 3890 Feet South of 39 Deg. 31 Min. 02.5 Sec.  Longitude 5.110 Feet West of 80 Deg. 28 Min. 34,6 Sec.							
Company:		·		• .			
MERCON ROSE DOUBLEPARONT, LLC.	Casing & Tubing	Used in drilling	Left in well	Cement fi up Cu. Ft.			
Address: RO. Box 1549	20	20	20'	7/4			
MASHINGTON PA 15301	13.3/8	473	473	275	<u>36</u> 3		
Agenti POLER 1. CUTRIGHT	9 5/8	1403	1403		672		
Inspector: DAVID SCRAVAGE		1114	2224	250516	<del></del>		
Date Permit Issued: 11124108	7"	6090	6070	10055			
Date Well Work Commenced: 208109				1			
Date Well Work Completed: 2101109				T			
Verbal Plugging: 2014.							
Date Permission granted on:							
Rojary Cable Rig			•	ľ			
Total Depth (feet): 6892							
Fresh Water Depth (ft.): 32		RECEIV	/ED		_		
		Affice of Oi	& Gas	·			
Salt Water Depth (fl.): 908							
		AUG 1 3	2009	<u> </u>			
Is coal being mined in area (N/Y)? NO		7100 -	·	<u> </u>			
Coal Depths (ft.):585	1 42	1/ Depart	mout of	]			
OPEN FLOW DATA	Envir	. بهادر در اختارات دارزی	Protectio	n			
71/9CON-57	MATTER			•			
Producing formation MARZEFILIS	Pav zc	ne depth (ft)	6274-68	372			
Gas: Initial open flowMCF/d Oil:	Initial open fle	ow B	bl/d				
Final open flow MCF/d Fi	nal open flow	BI	ol/d				
Time of open flow between initial and f	inal tests	Hour	3				
Static rock Pressurepsig (surface	e pressure) aft	erHou	re.				
Second producing formation 1/4	Pay zon	e denth (ft)					
Gas: Initial open flow MCF/d Oil: Final open flow MCF/d Fi	initial open flo	nw R	bl/d				
Final open flow MCF/d Fi	nal open flow	RI	1/d				
Time of open flow between initial and fi	inal tests	Hours	1				
Time of open flow between initial and final tests Hours  Static rock Pressure psig (surface pressure) after Hours							
NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.							
Signed:							
By: Managert Mondal							
Date: 2/01/09		<del></del>					

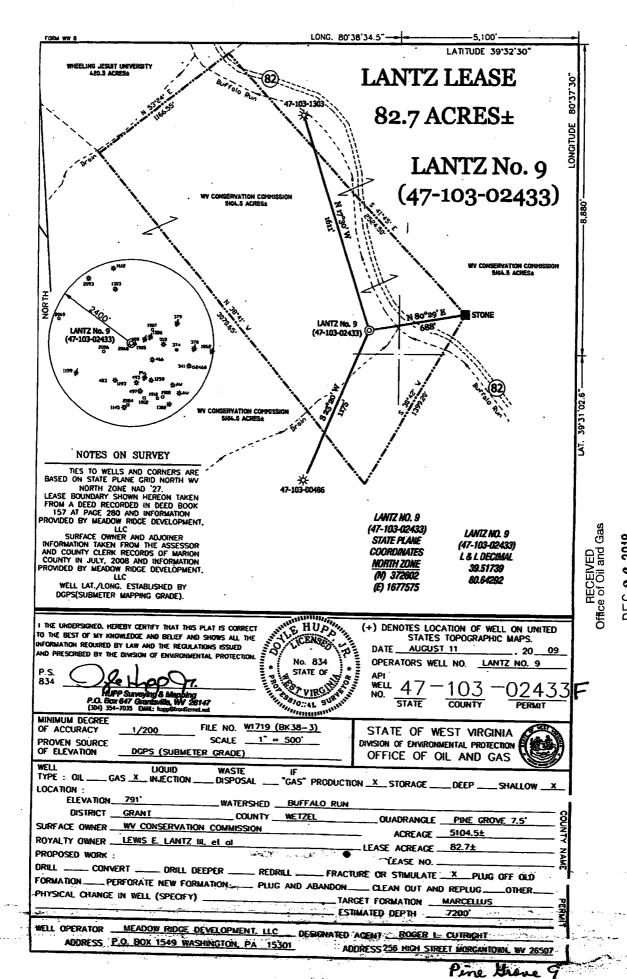
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DEC 26 2018

WR-35 pg2	
Lantz #9	
03-01-09	
47-103-0243	3

Stage #1		· perís	sand/water	avg rate	isip	
Marcellus		un-stimulated				
Stage #2			•			
				•		
Drillers Log				• .		
Fill <sup>:</sup>	` <b>0</b>	25				• •
Sd/Sh	25	88				
Coal	88	92	•	•		
Sd/Sh	92	96		•		. • •
Coal	96	104			;	:
Sd/Sh	104	420		•		•
Coal	420	425		•	•	
Sd/Sh	425.	698	•		•	
Red Rk	698	730				
Sd/\$h	150	13/1	•			*: <sup>*</sup>
Sh	1371	1390				
W/Sd	1390	1481				
Sd G/Sd/Sh	1481 1524	1524 1570				RECEIVED Office of Oil and Gas
Red Rk	1570	1570		•		Office of Oil and Gas
Kou Kk Sd/Sh	1595	1699				
Så	1699	1773				DEC 26 2018
G/Sd	1773	1980				DEC. A G 2010
Sh	1980	2108				
Ini Sd	2108	2135	-			WV Department of
Sd/Sh	2135	2542			E	WV Department of Environmental Protection
Slv8d	2542	2580				
Gor/Sd	2580	2600	•			
Sd/Sh	2600	4850				
Ril/Sd	4850	4860				
Sd/Sh	4860	4970				
Ben/Sd	4970	4990		•		
Sd/Sh	4990	5255				
Alz/Sd	5255	5345				
Sd/Sh	5345	6703				
Gen/Sh	6703	6728				
Tul/Sd	6728	6824	•	•		
Mar/Sh	6824	6872				
Ond/\$d	6872	6880				
ΠÒ	6892				•	





04/19/2019

WW-4A Revised 6-07

1) Date:	December 17, 2018	
2) Operator	's Well Number	
519051 Lantz #9		

3) API Well No.: 47 -

103 - 02433

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

4) Surface Ow	vner(s) to be served:	5)	(a) Coal Operator		
(a) Name	See Attached		Name		
Address			Address		
(b) Name	i		(h) Cool Ownow	(s) with Declaration	
Address	-			e Attached	
riduress			Address	e Attached	
	P		_ Address _		RECEIVED Office of Oil and Gas
(c) Name			Name		United Of Allacia
Address			Address		DEC 2 6 2018
C) In an act an	Dorok Hoveht		- (-) (-) 11 -	21 D 1	WV Department of
6) Inspector	Derek Haught			with Declaration	Environmental Protect
Address	PO Box 85		_ Name _		
m 1 1	Smithville WV 26178		Address		
Telephone	(304) 206-7613		_		
Take notic accompany Protection, the Applic	ying documents for a permit , with respect to the well at t	the West Virginia Cod to plug and abandon a v he location described of mailed by registered	well with the Chief of the Offi the attached Application an or certified mail or delivered	ce of Oil and Gas, West Virgin d depicted on the attached Forn	this Notice and Application and tia Department of Environmental in WW-6. Copies of this Notice, med above (or by publication in
		Well Operator	EQT Production Company	251	
The state of the s	DEVICIAL SEAL	By:	Erin Spine	7. // .	
	TOTARY PUBLIC	Its:	Regional Land Supervisor		
THE PARTY AND VICE THE	COA L. WANSTREET	Address	2400 Ansys Drive, Suite 200		
	PO BOX 260 DGEPORT, WV 28330		Canonsburg PA 15317		
	niusion expires April 07, 2020	Telephone	(304) 848-0035		-
All	sworn before me th	wans	ay of Decen	Notary Public	3
My Commission	n Expires	4-7-2	020		

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 <a href="mailto:depprivacyoffier@wv.gov">depprivacyoffier@wv.gov</a>.

519051 Lantz #9

47-103-02433P 04/19/2019

### Owner(s) (Surface and Access)

West Virginia Conservation Commission PO Box 99 Farmington WV 26571

### Coal Owner(s)

Mills Wetzel Land Inc. Suite 240 222 N. LaSalle St. Chicago IL 60601

Reserve Coal Properties Inc. CNX Center 1000 Consol Energy Drive Canonsburg PA 15317

CNX Gas Company LLC 1000 Consol Energy Drive / Canonsburg PA 15317

### Potential Water Owner(s):

N/A

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DEC 2 6 2018

04/19/2019

API Number 47 - 103 \_ 02433 Operator's Well No. 519051 Lantz #9

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EQT Production Company	OP Code 306686
Watershed (HUC 10) Buffalo Run	Quadrangle Pine Grove
Do you anticipate using more than 5,000 bbls of water to con	mplete the proposed well work? Yes No
Will a pit be used? Yes ✓ No	
If so, please describe anticipated pit waste: Forma	ation Fluids
Will a synthetic liner be used in the pit? Yes	No If so, what ml.? 20 ml
Proposed Disposal Method For Treated Pit Wastes	DAH.
Land Application (if selected pro-	vide a completed form WW-9-GPP) /- )-19
	mit Number)
Reuse (at API Number  Off Site Disposal (Supply form )	VW-9 for disposal location)
	w = 7 tot disposariocation)
Will closed loop systembe used? If so, describe:	
Drilling medium anticipated for this well (vertical and horize	ontal)? Air, freshwater, oil based, etc.
-If oil based, what type? Synthetic, petroleum, etc.	
Additives to be used in drilling medium?	
Drill cuttings disposal method? Leave in pit, landfill, remov	ed offsite, etc.
-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 an West Virginia solid waste facility. The notice shall be provid where it was properly disposed.	d Cas of any load of drill cuttings or associated waste rejected at any led within 24 hours of rejection and the permittee shall also disclose
on April 1, 2016, by the Office of Oil and Gas of the West provisions of the permit are enforceable by law. Violations or regulation can lead to enforcement action.  I certify under penalty of law that I have person application form and all attachments thereto and that, based	or indicated and am familiar with the information submitted on this on my inquiry of those individuals immediately responsible for o btaining trate, and complete. I am aware that there are significant particles for continuous continuous.  Office of Oil and Gas
Company Official (Typed Name) Erin Spine	
Company Official Title Regional Land Supervisor	WV Department of Environmental Protection
Subscribed and sworn before me this 18 day of My commission expires 4-7-2020	Notary Public OFFICIAL SEAL NATION OF PUBLIC STATE OF WEST VIRIGINA REBEDICA L. WANSTREET EOT PHODUCTION COMPANY PO BOX 280 BRIDGEPORT, WY 280320

_			
Lime 3	Tons/acre or to correc	et to pH 6.5	
-	0-20-20) or equivalent		
Fertilizer amount_1	/3 ton	lbs/acre	
Mulch 2		_Tons/acre	
		Seed Mixtures	
Te	emporary	Perma	nent
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Fescue	40	Red Fescue	15
Aslike Clover	5	Aslike Clover	5
Annual Rye	15		
Maps(s) of road, location, p provided). If water from the	pit will be land applied, pro	d application (unless engineered plans include vide water volume, include dimensions (L,	ding this info have been W, D) of the pit, and dimensions
Maps(s) of road, location, p provided). If water from the (L, W), and area in acres, of Photocopied section of invo	pit will be land applied, pro the land application area. lved 7.5' topographic sheet.	ovide water volume, include dimensions (L,	ding this info have been W, D) of the pit, and dimensions
Attach: Maps(s) of road, location, p provided). If water from the (L, W), and area in acres, of Photocopied section of invo	pit will be land applied, pro the land application area. lved 7.5' topographic sheet.	ovide water volume, include dimensions (L,	W, D) of the pit, and dimensions
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Maps(s) of road, location, p provided). If water from the (L, W), and area in acres, of Photocopied section of invo	pit will be land applied, pro the land application area.	ovide water volume, include dimensions (L,	RECEIVED Office of Oil and 0  WV Department
Maps(s) of road, location, p provided). If water from the (L, W), and area in acres, of Photocopied section of invo	pit will be land applied, pro the land application area.	ovide water volume, include dimensions (L,	RECEIVED Office of Oil and 0  WV Department
Maps(s) of road, location, p provided). If water from the (L, W), and area in acres, of Photocopied section of invo  Plan Approved by:  Comments:	pit will be land applied, pro the land application area.	ovide water volume, include dimensions (L,	RECEIVED Office of Oil and 0  WV Department

# 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

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DEC 2 6 2018

04/19/2019 RECEIVED
Office of Oil and Ga Scale: 1" = 200' Pine Grove 7.5' Topo Quad: DEC 2 6 2018 November 6, 2018 Wetzel Date: County: WV Department of Environmental Protection Grant Project No: 40-34-00-09 District: Topo 47-103-02433 WV 519051 (Lantz #9) Pit Location Map **Existing Well** Access Road 47-103-02433 WV 519051 NAD 27, North Zone N:372588.87 E:1677550.75 WGS 84 **LEGEND** LAT:39.517425 LONG:-80.642814 Proposed Pit Location ELEV:782.57



SURVEYING AND MAPPING SERVICES PERFORMED BY:

### ALLEGHENY SURVEYS, INC.

1-800-482-8606 237 Birch River Road Birch River, WV 26610 PH: (304) 649-8606 FAX: (304) 649-8608

PREPARED FOR:

## **EQT Production Company**

2400 Ansys Drive Canonsburg, PA 15317

04/19/2019 1" = 500' Pine Grove 7.5' Topo Quad: Scale: November 6, 2018 Wetzel Date: County: Project No: 40-34-00-09 District: Grant Highway 47-103-02433 WV 519051 (Lantz #9) Pit Location Map 20 20 Creek RECEIVED Office of Oil and Gas DEC 2 6 2018 WV Department of Environmental Protection **Existing Well** Access Road NAD 27, North Zone N:372588.87 E:1677550.75 47-103-02433 WGS 84 LEGEND WV 519051 LAT:39.517425 LONG:-80.642814 Proposed Pit Location ELEV:782.57 SURVEYING AND MAPPING SERVICES PERFORMED BY: PREPARED FOR: ALLEGHENY SURVEYS, INC. **EQT Production Company** 

EGHEN O

1-800-482-8606 237 Birch River Road Birch River, WV 26610 PH: (304) 649-8606 FAX: (304) 649-8608 2400 Ansys Drive Canonsburg, PA 15317 Topo Quad: Pine Grove 7.5'

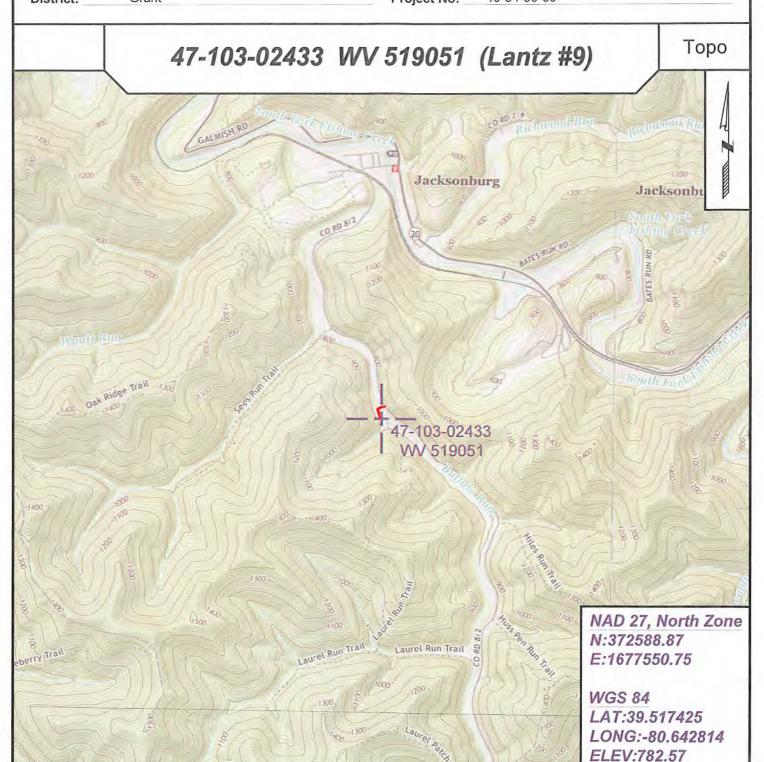
Scale: 1" = 2000'

DEC 2 6 2018

County: Wetzel

Date: November 6, 2018

WV Department of Environmental Protection





SURVEYING AND MAPPING SERVICES PERFORMED BY:

## ALLEGHENY SURVEYS, INC.

1-800-482-8606 237 Birch River Road Birch River, WV 26610 PH: (304) 649-8606 FAX: (304) 649-8608 PREPARED FOR:

## **EQT Production Company**

2400 Ansys Drive Canonsburg, PA 15317 WW-7 8-30-06



## West Virginia Department of Environmental Protection Office of Oil and Gas

## WELL LOCATION FORM: GPS

RECEIVED Office of Oil and Gas

API: 47-103-02433 W	ELL NO.: W	/V 519051 (Lantz #9)		DEC 2 6 2018
FARM NAME: Lantz		(Banzay)	E	WV Department of nvironmental Protection
FARM NAME: Lanz				
RESPONSIBLE PARTY	NAME: EQ	T Production Company		
COUNTY: Wetzel		DISTRICT: Grant		
QUADRANGLE: Pine C	Grove 7.5'			
SURFACE OWNER: W	est Virginia C	onservation Commission		
ROYALTY OWNER: R	obert Lantz M	iller, et al.		
UTM GPS NORTHING:	4374259	-		
UTM GPS EASTING:	530703	GPS ELEVATION:	238 m (783 ft)	
The Responsible Party nam preparing a new well location above well. The Office of Country the following requirements:  1. Datum: NAD 19	on plat for a pl Oil and Gas wil 183, Zone: 17 l	ugging permit or assigned I not accept GPS coordin North, Coordinate Units:	d API number on the ates that do not me	ne et
height above me				
<ol> <li>Accuracy to Date</li> <li>Data Collection</li> </ol>		ers		
The second secon	Company of the second	st Processed Differential_		
_	Real	-Time Differential		
Mapping Grade GPS	X : Pos	t Processed Differential_ Time Differential	X	
<ol><li>Letter size copy</li></ol>	of the topogr	aphy map showing the	well location.	
I the undersigned, hereby ce belief and shows all the info	rtify this data rmation requir	is correct to the best of m	y knowledge and	
prescribed by the Office of (	Oil and Gas.			
Star Ohn	1	3#2180	11/6/18	
Signature		Title	Date	