

Well Operator's Report of Well Work



Well Number: BIG245 108H (L003000)

API: 47 - 103 - 03443

Submission:  Initial  Amended

Notes: Amendment for Flowback/Production Data

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

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API 47 - 103 - 03443 County Wetzel District Grant  
Quad Big Run Pad Name BIG245 Field/Pool Name N/A  
Farm name ET Blue Grass LLC Well Number BIG245 108H (L003000)  
Operator (as registered with the OOG) EQT Production Company  
Address 2400 Ansys Drive, Suite 200 City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,382,943.53 Easting 537,030.28  
Landing Point of Curve Northing 4,382,766.70 Easting 537,080.62  
Bottom Hole Northing 4,378,126.66 Easting 539,972.18

Elevation (ft) 1430' 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)

Synthetic Oil Based Mud 13.95 ppg barium sulfate, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, glutaraldehyde solution, calcium hydroxide, partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 02/28/2022 Date drilling commenced 11/15/2021 Date drilling ceased 07/28/2022  
Date completion activities began 07/14/2023 Date completion activities ceased 10/21/2023  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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

Freshwater depth(s) ft 230,508,663,753,1012 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft N/A Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 934,1015,1117 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

**APPROVED**  
Reviewed by: [Signature]  
02/16/2024

API 47- 103 - 03443 Farm name ET Blue Grass LLC Well number BIG245 108H (L003000)

CASING STRINGS	Hole Size	Casing Size	Depth (GL)	New or Used	Grade wt/ft	Basket Depth(s) (GL)	Did cement circulate (Y/ N) * Provide details below*
Conductor	30"	26"	40'	NEW	A-500 85.6#	N/A	Y
Surface	17-1/2"	13-3/8"	1184'	NEW	J-55 54.5#	1056'	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2660'	NEW	J-55 36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-1/2"	6"	26,015'	NEW	P-110 24#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has a calculated TOC of 898' GL, which is greater than 500' TVD above the producing formation. No issues during cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (GL)	WOC (hrs)
Conductor	CLASS A	83	15.6	1.18	98	0	8+
Surface	CLASS A	1001	16.0	1.13	1131	0	8
Coal							
Intermediate 1	CLASS A	1100	16.5	1.07	1177	0	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	4690	15.2	1.09	5112	898'	8+
Tubing							

Drillers TD (ft) 26,034' Loggers TD (ft) N/A  
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 2,741'

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

CONDUCTOR- NONE  
 SURFACE- ON SHOE TRACK AND EVERY 500' TO SURFACE  
 INTERMEDIATE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE  
 PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO 1943'

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

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WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_





API 47- 103 - 03443 Farm name ET Blue Grass LLC Well number BIG245 108H (L003000)

Drilling Contractor Falcon (Rig 25)  
Address 1120 US-119 City Indiana State PA Zip 15701

Logging Company Scientific Drilling International  
Address 124 Vista Drive City Charleroi State PA Zip 15022

Logging Company GyroData  
Address 73 Noblestown Road City Carnegie State PA Zip 15106

Stimulation Contractor Evolution Well Services Operating  
Address 1780 Hughes Landing Blvd Ste 125 City The Woodlands State TX Zip 77380

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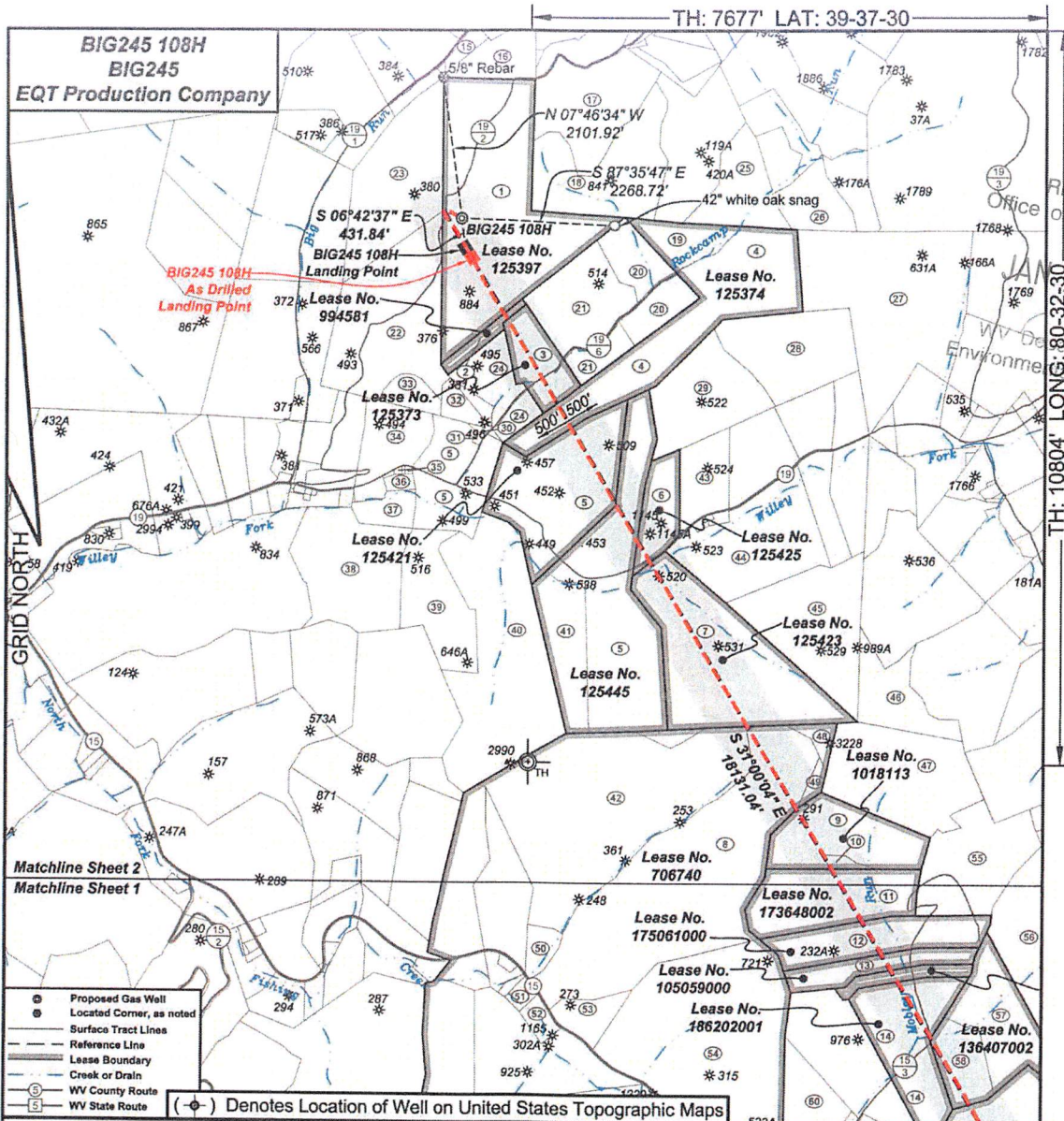
Well # BIG245 108H (L003000) Final Formations API# 47-103-03443				
Formation Name	Drill Top MD (ftGRD)	Drill Top (TVD) (ftGRD)	Drill Btm MD (ftGRD)	Drill Btm (TVD) (ftGRD)
Sand/Shale	1	1	934	934
Waynesburg Coal	934	934	937	937
Sand/Shale	937	937	1,015	1,015
Mapletown Coal	1,015	1,015	1,018	1,018
Sand/Shale	1,018	1,018	1,117	1,117
Pittsburgh Coal	1,117	1,117	1,126	1,126
Sand/Shale	1,126	1,126	2,257	2,257
Maxton	2,257	2,257	2,298	2,298
Sand/Shale	2,298	2,298	2,311	2,311
Big Lime	2,311	2,311	2,381	2,381
Big Injun	2,381	2,381	2,548	2,548
Sand/Shale	2,548	2,548	2,717	2,717
Weir	2,717	2,717	2,757	2,757
Sand/Shale	2,757	2,757	3,115	3,114
Gordon	3,115	3,114	3,154	3,153
Sand/Shale	3,154	3,153	3,173	3,172
Forth Sand	3,173	3,172	3,217	3,216
Sand/Shale	3,217	3,216	3,221	3,220
Bayard	3,221	3,220	3,451	3,449
Sand/Shale	3,451	3,449	3,843	3,840
Speechley	3,843	3,840	4,065	4,062
Sand/Shale	4,065	4,062	4,636	4,631
Riley	4,636	4,631	4,868	4,863
Sand/Shale	4,868	4,863	5,332	5,326
Benson	5,332	5,326	5,480	5,474
Sand/Shale	5,480	5,474	5,794	5,787
Alexander	5,794	5,787	6,110	6,102
Elks	6,110	6,102	7,063	7,050
Sonyea	7,063	7,050	7,234	7,206
Middlesex	7,234	7,206	7,297	7,258
Genesee	7,297	7,258	7,418	7,344
Geneseo	7,418	7,344	7,455	7,368
Tully	7,455	7,368	7,494	7,391
Hamilton	7,494	7,391	7,774	7,493
Marcellus	7,774	7,493	26,034	7,625

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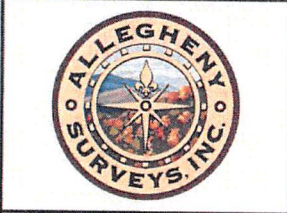
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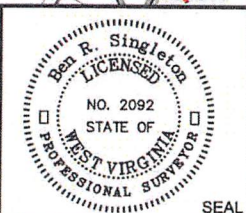


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*I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.*

*Ben R. Singleton*  
P.S. 2092



FILE NO: 246-18  
DRAWING NO: BIG245 108H  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: August 05 20 21  
OPERATOR'S WELL NO.: BIG245 108H  
API WELL NO  
47 - 103 - 03343  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1430' WATERSHED Rockcamp Run of Willey Fork QUADRANGLE: Big Run  
DISTRICT: Grant COUNTY: Wetzel  
SURFACE OWNER: ET Blue Grass LLC ACREAGE: 138.93  
ROYALTY OWNER: Shiben Estates, Inc., et al. LEASE NO: 125397 ACREAGE: 140  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7.549'

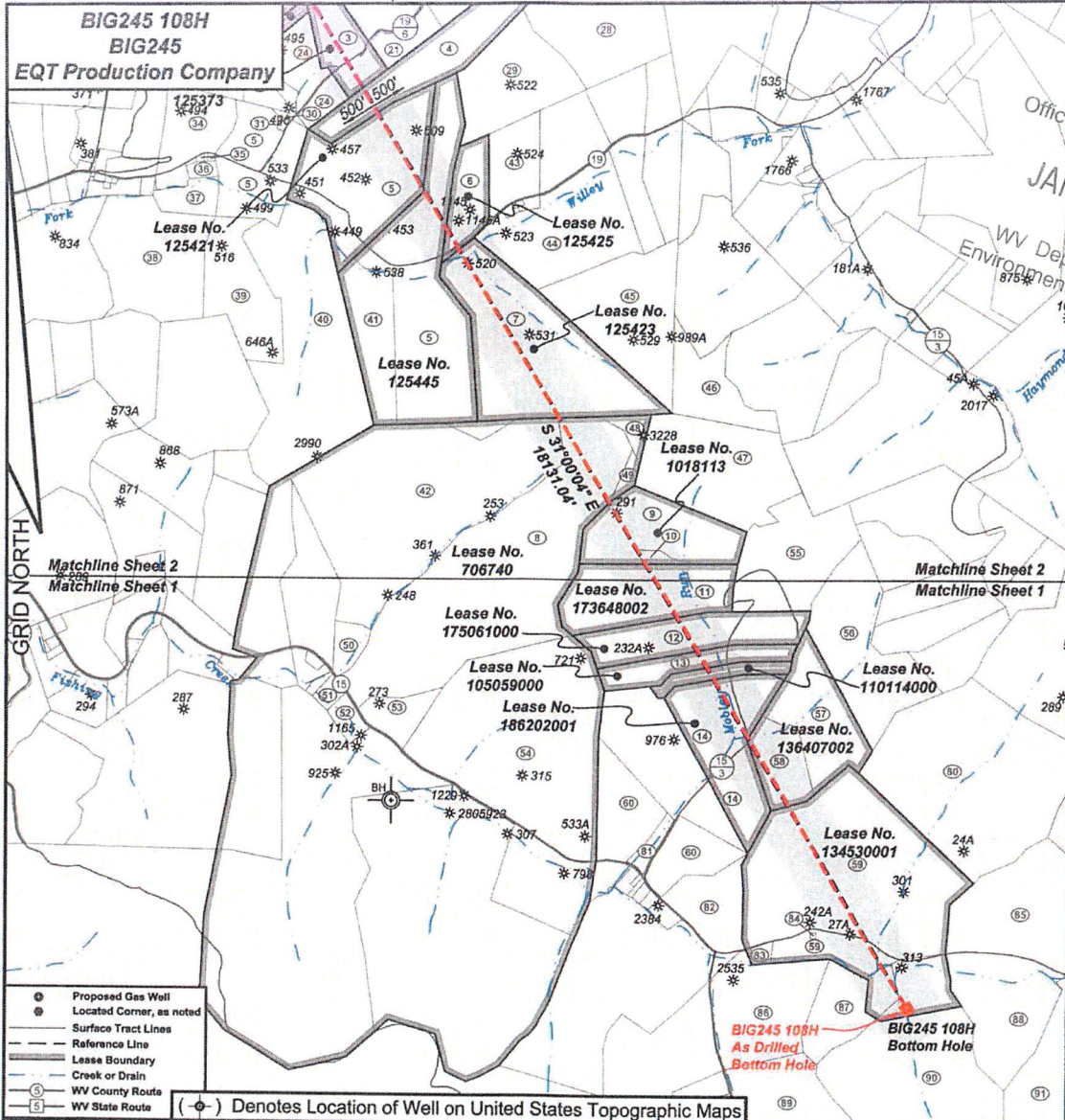
WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow  
ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive  
Canonsburg, PA 15317 Clarksburg, WV 26301

02/16/2024

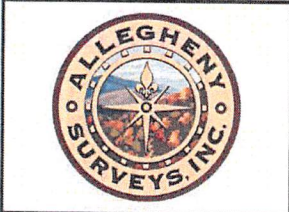


BH: 9853' LAT: 39-35-00

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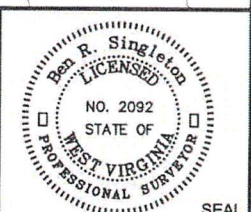


BH: 11486' LONG: 80-30-00



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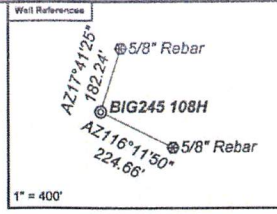
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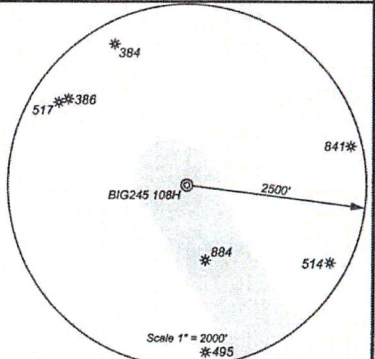
Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	8	22	Wetzel	Grant	ET Blue Grass LLC	138.83
2	8	25	Wetzel	Grant	James A. Yoho	8.25
3	8	27	Wetzel	Grant	James A. Yoho	21.75
4	8	32	Wetzel	Grant	Joe Pigg	82.40
5	8	53	Wetzel	Grant	H. Dom Higginbotham	196.21
6	8	54	Wetzel	Grant	Sherlyn Strider	20.00
7	14	7	Wetzel	Grant	Norman Derby	85.00
8	13	45	Wetzel	Grant	Coastal Forest Resources Company	158.18
9	14	22	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	48.00
10	14	21	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	2.50
11	14	28	Wetzel	Grant	EQT Production Company	80.50
12	14	37	Wetzel	Grant	EQT Production Company	38.50
13	14	37	Wetzel	Grant	EQT Production Company	27.90
14	14	36	Wetzel	Grant	EQT Production Company	100.00
15	8	13.1	Wetzel	Grant	Dwayne M. Goodrich	3.58
16	8	7	Wetzel	Grant	James E. & Martin A. Stonking	19.12
17	8	8	Wetzel	Grant	Wanda L. Byard	58.18
18	8	15	Wetzel	Grant	John Michael Byard	71.90
19	9	22	Wetzel	Grant	James A. Yoho	17.00
20	8	29	Wetzel	Grant	Mary Jane Byard	15.00
21	8	29	Wetzel	Grant	James A. Yoho	61.00
22	8	29	Wetzel	Grant	Dale K. Dulaney, et al.	70.81
23	8	11	Wetzel	Grant	Bonnie N. Hawthorne	63.50
24	8	25	Wetzel	Grant	James A. Yoho	22.28
25	9	13	Wetzel	Grant	James A. Yoho	27.00
26	9	17	Wetzel	Grant	Lesale Wetton	20.08
27	9	23	Wetzel	Grant	Stephen B. & Carolyn M. Gantz	118.00
28	9	29	Wetzel	Grant	William & Margaret Schneider	47.90
29	9	29	Wetzel	Grant	Sherlyn Strider	55.52
30	8	40	Wetzel	Grant	James A. Yoho	0.50
31	8	41	Wetzel	Grant	H. Dom Higginbotham	0.45
32	8	30	Wetzel	Grant	James A. Yoho	7.50
33	8	24	Wetzel	Grant	H. Dom Higginbotham	7.10
34	8	39	Wetzel	Grant	H. Dom Higginbotham	23.62
35	8	52	Wetzel	Grant	Henry E. Wiley	0.28
36	8	51	Wetzel	Grant	Henry E. Wiley	2.34
37	8	55	Wetzel	Grant	Marcel L. McDowell, et al.	8.28
38	13	7	Wetzel	Grant	Marcel L. McDowell, et al.	51.02
39	13	8	Wetzel	Grant	Robert Cox	36.00
40	13	17	Wetzel	Grant	Mary Higginbotham	112.00
41	13	9	Wetzel	Grant	Mary Higginbotham	30.10
42	13	27.1	Wetzel	Grant	Jeremy Coble	148.70
43	9	40.1	Wetzel	Grant	Donald J. Dulaney	22.00
44	9	52	Wetzel	Grant	Norman Derby	61.51
45	14	8	Wetzel	Grant	Ethel R. Coen	88.50
46	14	10	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	29.00
47	14	18	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	66.70
48	14	17	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	8.20
49	14	16	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	1.80
50	13	27	Wetzel	Grant	Teresa D. Gump Life Estate	8.07
51	13	50	Wetzel	Grant	Gary D. & Julia A. Wetton	2.37
52	13	45.1	Wetzel	Grant	Gary D. & Julia A. Wetton	5.00
53	13	51	Wetzel	Grant	James & Debra Lippincott	11.70
54	15	12.1	Wetzel	Grant	Liberty Midstream & Resources LLC	200.00
55	14	23	Wetzel	Grant	Equiterra LP	91.00
56	14	38	Wetzel	Grant	Dale C. Eastham, et al.	67.00
57	14	39.3	Wetzel	Grant	Dale C. Eastham, et al.	38.05
58	14	39	Wetzel	Grant	Mountain Valley Pipeline LLC	17.81
59	19	7	Wetzel	Grant	Florence E. Kiboye	157.09
60	19	5	Wetzel	Grant	Roger K. & Shirley K. Hinerman	45.17
61	19	4	Wetzel	Grant	Donald J. Dulaney, Jr.	131.00
62	19	6	Wetzel	Grant	Equitable Gas Company	9.20
63	19	6.1	Wetzel	Grant	Marshall Liberty Midstream & Resources LLC	21.50
64	19	7.1	Wetzel	Grant	Mobility Community Educational Outreach Service	45.17
65	19	7.1	Wetzel	Grant	S. J. Kiboye Cemetery	0.25
66	19	8	Wetzel	Grant	Donald J. Dulaney, Jr.	71.50
67	19	17	Wetzel	Grant	Edward L. Tibus	45.50
68	19	15	Wetzel	Grant	Florence E. Kiboye	8.87
69	19	8.1	Wetzel	Grant	EQT Production Company	53.00
70	19	26	Wetzel	Grant	Timothy S. & Shannon L. Branner	135.48
71	19	27	Wetzel	Grant	Florence Kiboye	201.00



As Drilled Well Information:  
 BIG245 108H coordinates are  
 NAD 27 N: 400,738.44 E: 1,698,788.01  
 NAD 83 UTM N: 4,382,943.53 E: 537,030.28  
 BIG245 108H Kick Out Point coordinates are  
 NAD 27 N: 400,744.15 E: 1,698,781.02  
 NAD 83 UTM N: 4,382,945.24 E: 537,028.12  
 BIG245 108H Landing Point coordinates are  
 NAD 27 N: 400,155.41 E: 1,698,943.52  
 NAD 83 UTM N: 4,382,786.70 E: 537,080.62  
 BIG245 108H Bottom Hole coordinates are  
 NAD 27 N: 384,770.93 E: 1,708,178.30  
 NAD 83 UTM N: 4,378,126.66 E: 539,972.18  
 West Virginia Coordinate system of 1927 (North Zone)  
 based upon Differential GPS Measurements.  
 Plat orientation, corner and well ties are based upon  
 the grid north meridian.  
 Well location references are based upon the grid north  
 meridian.  
 UTM coordinates are NAD83, Zone 17, Meters.

- BIG245
- ◎ BIG245 114H
  - ◎ BIG245 112H
  - ◎ BIG245 110H
  - ◎ BIG245 108H
  - ◎ BIG245 106H
  - ◎ BIG245 104H
  - ◎ BIG245 102H
  - ◎ 47-103-03235
  - ◎ 47-103-03236
- 47-103-03234◎

Lessee No.	Owner	Acres
994581	Kenneth R. Mason and Jennifer L. Mason, et al.	6.25
125373	Jim Yoho, et al.	22
125374	Jordan Zachary Pigg, et al.	100
125421	H. Dom Higginbotham and Lavena Jane Higginbotham	73
125445	Ory USA Inc., et al.	121
125425	Sherlyn Louise Strider, et al.	20
125423	AMP Fund III, LP, et al.	85
706740	EQT Production Company	1003.75
1018113	Tamara L. Donohue f/k/a Tamara Lynn Hixbaugh, et al.	50.5
173648002	The William B. and Pamela S. Franck Joint Revocable Living Trust dated 2/12/2018, et al.	50.50
175061000	New Opic, Inc., et al.	40 of 31,151.881
105059000	Jamie Joe Prine	26.50
110114000	Lloyd Joe Prine	10
186202001	Ridgeloop Appalachia, LLC, et al.	64
136407002	Ridgeloop Royalties, LLC, et al.	57
134530001	John W. Kiboye Jr., et al.	180

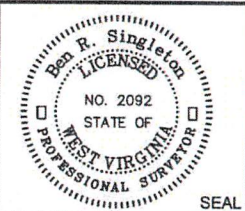


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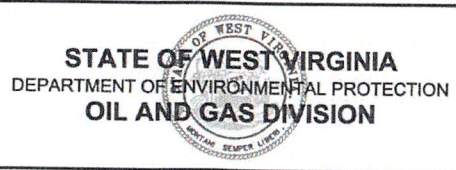


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*Ben R. Singleton*  
 P.S. 2092



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 LOCATION: ELEVATION: 1430' WATERSHED Rockcamp Run of Willey Fork QUADRANGLE: Big Run  
 DISTRICT: Grant COUNTY: Wetzel  
 SURFACE OWNER: ET Blue Grass LLC ACREAGE: 138.93  
 ROYALTY OWNER: Shiben Estates, Inc., et al. LEASE NO: 125397 ACREAGE: 140  
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 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,549'

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 ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive  
 Canonsburg, PA 15317 Clarksburg, WV 26301

02/16/2024

# Perforation Data

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Office of Operations

JAN 22 2024

WV Department of  
Environmental Protection

02/16/2024

Stage No.	Perforation Date	Stage Perforated From TMD Ft.	Stage Perforated To TMD Ft.	# of Perforations/Stage	Formation(s)
2	07/14/2023	25914	25752	36	Marcellus
3	07/15/2023	25733	25572	36	Marcellus
4	07/16/2023	25553	25391	36	Marcellus
5	07/16/2023	25372	25211	36	Marcellus
6	07/16/2023	25192	25030	36	Marcellus
7	07/17/2023	25011	24850	36	Marcellus
8	07/17/2023	24831	24649	40	Marcellus
9	07/17/2023	24630	24449	40	Marcellus
10	07/18/2023	24430	24248	40	Marcellus
11	07/18/2023	24229	24048	40	Marcellus
12	07/18/2023	24029	23847	40	Marcellus
13	07/18/2023	23828	23647	40	Marcellus
14	07/18/2023	23628	23446	40	Marcellus
15	07/19/2023	23427	23246	40	Marcellus
16	07/19/2023	23227	23045	40	Marcellus
17	07/19/2023	23026	22845	40	Marcellus
18	07/19/2023	22826	22644	40	Marcellus
19	07/20/2023	22625	22444	40	Marcellus
20	07/20/2023	22425	22243	40	Marcellus
21	07/20/2023	22224	22043	40	Marcellus
22	07/20/2023	22024	21842	40	Marcellus
23	07/21/2023	21823	21642	40	Marcellus
24	07/21/2023	21623	21441	40	Marcellus
25	07/21/2023	21422	21241	40	Marcellus
26	07/22/2023	21222	21040	40	Marcellus
27	07/22/2023	21021	20840	40	Marcellus
28	07/22/2023	20821	20639	40	Marcellus
29	07/22/2023	20620	20439	40	Marcellus
30	07/22/2023	20420	20238	40	Marcellus
31	07/23/2023	20219	20038	40	Marcellus
32	07/23/2023	20019	19837	40	Marcellus
33	07/23/2023	19818	19637	40	Marcellus
34	07/23/2023	19618	19436	40	Marcellus
35	07/23/2023	19417	19236	40	Marcellus
36	07/24/2023	19217	19035	40	Marcellus
37	07/24/2023	19016	18835	40	Marcellus
38	07/25/2023	18816	18634	40	Marcellus
39	07/25/2023	18615	18434	40	Marcellus
40	07/25/2023	18415	18233	40	Marcellus
41	07/25/2023	18214	18033	40	Marcellus
42	07/26/2023	18014	17832	40	Marcellus
43	07/26/2023	17813	17632	40	Marcellus
44	07/27/2023	17613	17431	40	Marcellus

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45	07/27/2023	17412	17231	40	Marcellus
46	07/27/2023	17212	17030	40	Marcellus
47	07/28/2023	17011	16830	40	Marcellus
48	07/28/2023	16811	16629	40	Marcellus
49	07/28/2023	16610	16429	40	Marcellus
50	07/29/2023	16410	16228	40	Marcellus
51	07/29/2023	16209	16028	40	Marcellus
52	07/30/2023	16009	15827	40	Marcellus
53	07/30/2023	15808	15627	40	Marcellus
54	07/31/2023	15608	15426	40	Marcellus
55	07/31/2023	15407	15226	40	Marcellus
56	08/01/2023	15207	15025	40	Marcellus
57	08/01/2023	15006	14825	40	Marcellus
58	08/02/2023	14806	14624	40	Marcellus
59	08/03/2023	14605	14424	40	Marcellus
60	08/03/2023	14405	14223	40	Marcellus
61	08/04/2023	14204	14023	40	Marcellus
62	08/04/2023	14004	13822	40	Marcellus
63	08/05/2023	13803	13622	40	Marcellus
64	08/05/2023	13603	13421	40	Marcellus
65	08/06/2023	13402	13221	40	Marcellus
66	08/06/2023	13202	13020	40	Marcellus
67	08/06/2023	13001	12820	40	Marcellus
68	08/07/2023	12801	12619	40	Marcellus
69	08/08/2023	12600	12419	40	Marcellus
70	08/09/2023	12400	12218	40	Marcellus
71	08/09/2023	12199	12018	40	Marcellus
72	08/10/2023	11999	11817	40	Marcellus
73	08/10/2023	11798	11617	40	Marcellus
74	08/11/2023	11598	11416	40	Marcellus
75	08/11/2023	11397	11216	40	Marcellus
76	08/11/2023	11197	11015	40	Marcellus
77	08/12/2023	10996	10815	40	Marcellus
78	08/13/2023	10796	10614	40	Marcellus
79	08/14/2023	10595	10414	40	Marcellus
80	08/14/2023	10395	10213	40	Marcellus
81	08/14/2023	10194	10013	40	Marcellus
82	08/15/2023	9994	9812	40	Marcellus
83	08/15/2023	9793	9612	40	Marcellus
84	08/15/2023	9593	9411	40	Marcellus
85	08/15/2023	9392	9211	40	Marcellus
86	08/15/2023	9192	9010	40	Marcellus
87	08/16/2023	8991	8810	40	Marcellus
88	08/16/2023	8791	8609	40	Marcellus
89	08/16/2023	8590	8409	40	Marcellus
90	08/16/2023	8390	8208	40	Marcellus
91	08/16/2023	8189	8008	40	Marcellus

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# Stimulation Data

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Stimulation

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Stage #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	07/14/2023	74	9005	6702	4425	176386	5168	
2	07/15/2023	89	8977	6927	5276	396158	9446	
3	07/16/2023	86	8988	5374	5612	396430	11077	
4	07/16/2023	95	9238	5943	5403	396069	9275	
5	07/16/2023	88	9201	6286	5010	396357	9221	
6	07/17/2023	92	9234	6021	5306	396593	9311	
7	07/17/2023	96	9159	5827	5359	396479	9203	
8	07/18/2023	98	9183	6335	5674	440993	10184	
9	07/18/2023	98	9141	5766	5369	440474	10262	
10	07/18/2023	97	9167	6062	5167	440035	10214	
11	07/18/2023	100	9103	5745	5087	440893	10221	
12	07/19/2023	98	9146	5991	4745	440001	10233	
13	07/19/2023	99	9126	6135	5304	440674	10237	
14	07/19/2023	99	9057	5932	5328	440417	10215	
15	07/19/2023	100	9143	5864	4793	440558	10177	
16	07/19/2023	100	9055	4931	4873	441799	10182	
17	07/20/2023	99	9062	5657	5512	440147	10178	
18	07/20/2023	100	9056	6087	5345	440101	10159	
19	07/20/2023	100	9147	5526	5300	440081	10331	
20	07/20/2023	100	9143	5028	5129	440141	10156	
21	07/21/2023	100	9059	5770	4779	440603	10191	
22	07/21/2023	100	8967	5955	5235	440108	10128	
23	07/21/2023	100	9167	5667	5002	440153	10158	
24	07/21/2023	100	9030	5503	5107	440527	10139	
25	07/22/2023	100	8977	5884	4165	440510	10239	
26	07/22/2023	100	8877	5973	4942	440137	10156	
27	07/22/2023	100	9059	5662	5600	440130	10078	
28	07/22/2023	100	9004	5659	5351	440164	10084	
29	07/23/2023	100	9004	6441	4936	440231	10124	
30	07/23/2023	100	8915	5451	4360	440142	10122	
31	07/23/2023	100	8807	5137	4388	440129	10028	
32	07/23/2023	100	8935	5663	4258	440174	10035	
33	07/23/2023	100	8974	6018	5246	440574	10111	
34	07/24/2023	99	8960	5547	4840	440879	10173	
35	07/24/2023	96	9095	6273	5097	440293	10072	
36	07/24/2023	101	8969	5784	3833	440183	9997	
37	07/25/2023	100	8607	6041	4577	440768	10082	
38	07/25/2023	101	8689	6066	5412	440249	9995	
39	07/25/2023	101	8868	5505	5033	440952	10109	
40	07/26/2023	100	8791	5597	4315	439859	10076	
41	07/26/2023	101	8973	6012	5255	440143	9926	
42	07/27/2023	100	8750	6174	4414	440142	9925	
43	07/27/2023	101	8811	5860	4495	440170	9932	

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44	07/27/2023	100	8725	5914	4360	440137	9907
45	07/28/2023	99	8786	6034	4272	440007	9918
46	07/28/2023	99	8452	4937	4478	440222	9905
47	07/28/2023	100	8785	6327	4762	440194	9903
48	07/29/2023	100	8720	5892	4000	440269	9916
49	07/29/2023	100	8802	5920	5164	440124	9897
50	07/30/2023	80	9044	6165	5246	440449	11338
51	07/30/2023	100	8806	5820	4675	440130	9913
52	07/30/2023	87	7571	5996	5029	440239	10068
53	07/31/2023	100	8626	5767	4579	440131	9874
54	07/31/2023	99	8803	5670	4308	440079	9856
55	08/01/2023	88	8713	5862	4047	440153	9843
56	08/02/2023	98	8181	6437	5075	440251	9830
57	08/02/2023	100	8405	5854	4390	440170	9829
58	08/03/2023	99	8279	5889	3990	440204	9821
59	08/04/2023	99	8276	5899	4702	440150	9826
60	08/04/2023	100	8046	5932	4320	440416	9816
61	08/05/2023	96	8842	5802	5088	440115	9802
62	08/05/2023	99	8603	5747	5412	440655	9819
63	08/05/2023	99	8463	6022	4773	440370	9794
64	08/06/2023	99	7912	5824	4394	440100	9796
65	08/06/2023	99	8230	5834	4231	440505	9770
66	08/07/2023	100	8262	5709	4897	440075	9753
67	08/07/2023	99	7911	6023	4750	440481	9778
68	08/08/2023	100	8114	5853	4809	440406	9762
69	08/09/2023	100	7804	5913	5312	440966	10144
70	08/09/2023	99	8081	5946	4882	440488	9738
71	08/10/2023	99	8019	5852	5230	440244	9774
72	08/10/2023	100	8152	5855	4972	439970	9698
73	08/11/2023	100	8564	5921	4798	440035	9714
74	08/11/2023	99	8078	5877	4854	440517	9715
75	08/11/2023	100	8266	6149	4523	440032	9703
76	08/12/2023	100	8422	5855	5011	440000	9697
77	08/13/2023	100	8007	5890	4296	440143	9780
78	08/14/2023	101	7555	5780	4814	440370	9739
79	08/14/2023	100	7728	5791	4459	440346	9673
80	08/15/2023	101	7886	5365	4453	440394	9687
81	08/15/2023	100	7850	5691	4399	440265	9661
82	08/15/2023	100	7439	5676	5280	440508	9675
83	08/15/2023	100	7695	5646	4279	440203	9718
84	08/16/2023	100	7775	5621	5554	440195	9634
85	08/16/2023	100	7826	5869	4528	440105	9634
86	08/16/2023	100	7845	5779	4579	440194	9615
87	08/16/2023	100	7721	6077	4866	440401	9643
88	08/16/2023	100	7576	5842	5070	440442	9758
89	08/16/2023	100	7581	5726	5024	440492	9744
90	08/17/2023	100	8117	5938	4311	440094	9571

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91	08/17/2023	100	8408	5825	4640	440093	9579	
92	08/17/2023	100	7840	5724	4432	440209	9644	

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/14/2023
Job End Date:	9/8/2023
State:	West Virginia
County:	Wetzel
API Number:	47-103-03443-00-00
Operator Name:	EQT Production
Well Name and Number:	BIG245 108H
Latitude:	39.59542300
Longitude:	-80.56872070
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,654
Total Base Water Volume (gal):	38,136,084
Total Base Non Water Volume:	0



## Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	EQT	Carrier/Base Fluid	Water	7732-18-5	100.00000	88.69392	None
Sand (Proppant)	EQT	Proppant	Silica Substrate	14808-60-7	100.00000	11.14249	None
Clearal 268	ChemStream	Biocide	Non-hazardous substances	Proprietary	80.00000	0.00897	None
StimSTREAM FR 9800	ChemStream	Friction Reducer	Copolymer of 2-propenamide	Proprietary	30.00000	0.00779	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor	Non-hazardous substances	Proprietary	90.00000	0.00756	None
StimSTREAM FR 9800	ChemStream	Friction Reducer	Petroleum Distillate	64742-47-8	20.00000	0.00346	None
Enviro-Syn HCR-7000-WL	Evolution Well Services	Acid	Proprietary	Proprietary	20.00000	0.00215	None
Clearal 268	ChemStream	Biocide	Glutaraldehyde	111-30-8	20.00000	0.00056	None
Enviro-Syn HCR-7000-WL	Evolution Well Services	Acid					

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			Proprietary	Proprietary	10.00000	0.00054	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor					
			Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid)(BHMT)	34690-00-1	10.00000	0.00009	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00004	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00004	None
Clearal 268	ChemStream	Biocide					
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00001	None
Clearal 268	ChemStream	Biocide					
			Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00001	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Ammonium chloride ((NH4)Cl)	12125-02-9	1.00000	0.00001	None
Clearal 268	ChemStream	Biocide					
			Ethanol	64-17-5	1.50000	0.00000	None

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

\* Total Water Volume sources may include fresh water, produced water, and/or recycled water

\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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