

Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: BIG464H14 (516785)

API: 47 - 103 - 03212

Submission: Initial Amended

Notes:

RECEIVED
Office of Oil and Gas
NOV 28 2018
WV Department of
Environmental Protection

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

API 47-103-03212 County WETZEL District GRANT
Quad BIG RUN Pad Name BIG464 Field/Pool Name N/A
Farm name COASTAL FOREST RESOURCES COMPANY D/B/A COSTAL TIMBERLANDS COMPANY Well Number BIG464H14 (516785)
Operator (as registered with the OOG) EQT Production Company
Address 625 LIBERTY AVENUE, SUITE 1700 City PITTSBURGH State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,379,871.44 Easting 541,536.36
Landing Point of Curve Northing 4,379,502.43 Easting 542,284.75
Bottom Hole Northing 4,377,419.95 Easting 543,196.11

Elevation (ft) 1247' 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 Based Mud 13.2 ppg, aliphatic based non-aqueous drilling fluid, barium sulfate, calcium chloride, organophilic clay, quaternary ammonium clay, gilsonite, blended emulsifier, wetting agent, blended graphite, hydrated lime, calcium carbonate, ground walnut shells, fibrous cellulose.

Date permit issued 12/12/2017 Date drilling commenced 12/16/2017 Date drilling ceased 07/17/2018
Date completion activities began 8/10/2017 Date completion activities ceased 8/30/2018
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 115, 190, 438 Open mine(s) (Y/N) depths _____
Salt water depth(s) ft 1730, 1854 Void(s) encountered (Y/N) depths _____
Coal depth(s) ft 562, 801, 903, 918 Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) N

RECEIVED
Office of Oil and Gas
NOV 28 2018
WV Department of
Environmental Protection

Reviewed by:

Reviewed

Dmt
2-21-19

WR-35
Rev. 8/23/13

API 47-103 - 03212

Farm name COASTAL FOREST RESOURCES COMPANY DB/A COASTAL TIMBERLANDS CO

Well number BIG464H14 (516785)

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	26"	40'	NEW	A-500 85.6#	N/A	Y
Surface	17-1/2"	13-3/8"	1017'	NEW	J-55 54.5#	246'	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2850'	NEW	A-500 40#	1753'	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5 1/2"	16213'	NEW	P-110 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has calculated TOC of 3638' MD, 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 ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	100	15.6	1.18	118	0	8+
Surface	CLASS A	904	15.6	1.18	1066	0	8
Coal							
Intermediate 1	CLASS A	1050	15.6	1.20	1260	0	8
Intermediate 2							
Intermediate 3							
Production	Class A	2482	15.6	1.19	2954	3638'	8+
Tubing							

Drillers TD (ft) 16223' MD Loggers TD (ft) N/A
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 4399' MD

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' FEET TO SURFACE
INTERMEDIATE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE
PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO 3964'

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

RECEIVED
Office of Oil and Gas
NOV 28 2018
WV Department of
Environmental Protection

WR-35
Rev. 8/23/13

API 47- 103 - 03212 Farm name COASTAL FOREST RESOURCES COMPANY D/B/A COASTAL TIMBERLANDS Well number BIG464H14 (516785)

Drilling Contractor Fountain Quail
Address P.O. Box 430 City Reno State OH Zip 45773

Logging Company Gyrodatta Inc.
Address 73 Noblestown Road City Carnegie State PA Zip 15106

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

Cementing Company Universal
Address 13549 S. Mosiertown Rd City Meadville State PA Zip 16335

RECEIVED
Office of Oil and Gas
NOV 28 2018
WV Department of
Environmental Protection

05/03/2019

516785 47-103-03212 - Stimulating Company Information

Stimulating Company ProFrac

Address 777 Main Street, Suite 3900 City Ft. Worth State TX Zip 76102

RECEIVED
Office of Oil and Gas
NOV 28 2018
WV Department of
Environmental Protection

516785 47-103-03212-00-00 Perforations

Stage Number	Perforation Date	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Number of Shots	Formation
1	8/9/2018	16,123	16,172	36	MARCELLUS
2	8/10/2018	15,923	16,085	40	MARCELLUS
3	8/11/2018	15,723	15,885	40	MARCELLUS
4	8/11/2018	15,523	15,685	40	MARCELLUS
5	8/12/2018	15,323	15,485	40	MARCELLUS
6	8/12/2018	15,123	15,285	40	MARCELLUS
7	8/12/2018	14,923	15,085	40	MARCELLUS
8	8/13/2018	14,723	14,885	40	MARCELLUS
9	8/14/2018	14,523	14,685	40	MARCELLUS
10	8/14/2018	14,323	14,485	40	MARCELLUS
11	8/15/2018	14,123	14,285	40	MARCELLUS
12	8/16/2018	13,923	14,085	40	MARCELLUS
13	8/16/2018	13,723	13,885	40	MARCELLUS
14	8/17/2018	13,523	13,685	40	MARCELLUS
15	8/18/2018	13,323	13,485	40	MARCELLUS
16	8/19/2018	13,123	13,285	40	MARCELLUS
17	8/19/2018	12,923	13,085	40	MARCELLUS
18	8/20/2018	12,723	12,885	40	MARCELLUS
19	8/21/2018	12,523	12,685	40	MARCELLUS
20	8/21/2018	12,323	12,485	40	MARCELLUS
21	8/21/2018	12,123	12,285	40	MARCELLUS
22	8/22/2018	11,923	12,085	40	MARCELLUS
23	8/22/2018	11,723	11,885	40	MARCELLUS
24	8/23/2018	11,523	11,685	40	MARCELLUS
25	8/24/2018	11,323	11,485	40	MARCELLUS
26	8/24/2018	11,123	11,285	40	MARCELLUS
27	8/24/2018	10,923	11,085	40	MARCELLUS
28	8/25/2018	10,723	10,885	40	MARCELLUS
29	8/25/2018	10,523	10,685	40	MARCELLUS
30	8/26/2018	10,323	10,485	40	MARCELLUS
31	8/26/2018	10,123	10,285	40	MARCELLUS
32	8/27/2018	9,923	10,085	40	MARCELLUS
33	8/28/2018	9,723	9,885	40	MARCELLUS
34	8/28/2018	9,523	9,685	40	MARCELLUS
35	8/28/2018	9,323	9,485	40	MARCELLUS
36	8/29/2018	9,123	9,285	40	MARCELLUS
37	8/30/2018	8,923	9,085	40	MARCELLUS
38	8/30/2018	8,723	8,885	40	MARCELLUS
39	8/30/2018	8,523	8,685	40	MARCELLUS

NOV 28 2018
 RECEIVED
 Office of Oil and Gas
 Department of Environmental Protection

RECEIVED
 Dept. of Oil and Gas
 NOV 28 2018
 WY Department of Environmental

516785 47-103-03212-00-00 - Stimulated Stages

Stage Number	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbbls)	Amount of Nitrogen/other (units)
1	8/10/2018	77	8,567.00	8,809.00	4,582.00	180,160.00	5,773.90	0
2	8/11/2018	76	8,575.00	9,356.00	5,616.00	390,280.00	11,247.70	0
3	8/11/2018	79	8,346.00	9,135.00	5,386.00	405,380.00	9,274.35	0
4	8/12/2018	85	8,733.00	9,347.00	5,949.00	387,500.00	9,947.40	0
5	8/12/2018	80	8,212.00	8,614.00	4,584.00	450,120.00	8,685.90	0
6	8/12/2018	77	8,425.00	9,140.00	5,352.00	435,123.00	8,791.94	0
7	8/13/2018	77	8,116.00	8,527.00	5,172.00	450,520.00	10,996.60	0
8	8/13/2018	80	8,579.00	9,098.00	5,464.00	450,420.00	10,234.50	0
9	8/14/2018	83	8,790.00	9,269.00	6,073.00	450,020.00	8,718.30	0
10	8/15/2018	87	8,999.00	9,305.00	6,215.00	452,380.00	8,646.60	0
11	8/16/2018	84	9,049.00	9,308.00	6,144.00	450,640.00	8,585.20	0
12	8/16/2018	89	9,194.00	9,386.00	6,635.00	450,120.00	11,145.40	0
13	8/16/2018	88	8,944.00	9,254.00	4,852.00	454,460.00	7,679.90	0
14	8/18/2018	95	9,064.00	9,399.00	6,119.00	452,180.00	8,963.40	0
15	8/19/2018	70	8,980.00	9,423.00	4,464.00	450,940.00	13,205.30	0
16	8/19/2018	94	9,025.00	9,400.00	5,466.00	451,250.00	7,610.60	0
17	8/20/2018	100	8,572.00	8,878.00	5,255.00	450,940.00	7,879.60	0
18	8/21/2018	93	8,482.00	9,123.00	5,449.00	450,280.00	8,257.00	0
19	8/21/2018	97	8,658.00	9,058.00	5,568.00	449,940.00	7,871.96	0
20	8/21/2018	100	8,691.00	9,016.00	5,400.00	450,300.00	8,410.00	0
21	8/22/2018	98	8,792.00	9,022.00	5,487.00	449,980.00	8,277.70	0
22	8/22/2018	97	8,859.00	9,219.00	6,031.00	450,800.00	7,991.47	0
23	8/23/2018	98	8,799.00	9,167.00	6,052.00	450,020.00	8,013.10	0
24	8/23/2018	91	8,837.00	9,222.00	6,410.00	452,040.00	10,345.70	0
25	8/24/2018	88	8,908.00	9,342.00	6,310.00	450,640.00	8,600.80	0
26	8/24/2018	99	8,832.00	9,067.00	6,046.00	450,860.00	7,809.00	0
27	8/25/2018	96	8,757.00	9,191.00	5,580.00	452,280.00	7,943.00	0
28	8/25/2018	79	8,892.00	9,385.00	6,065.00	450,680.00	9,077.50	0
29	8/26/2018	98	8,827.00	9,046.00	5,694.00	452,360.00	7,889.00	0
30	8/26/2018	100	8,777.00	9,148.00	5,687.00	450,380.00	7,916.10	0
31	8/27/2018	95	8,645.00	8,987.00	5,819.00	451,180.00	7,644.90	0
32	8/27/2018	96	8,586.00	8,912.00	5,669.00	452,730.00	9,502.00	0
33	8/28/2018	95	8,713.00	9,220.00	5,716.00	450,240.00	7,530.40	0
34	8/28/2018	95	8,632.00	9,253.00	6,238.00	450,200.00	8,138.20	0
35	8/29/2018	98	8,684.00	8,880.00	6,111.00	450,560.00	7,561.90	0
36	8/30/2018	98	8,741.00	9,075.00	6,096.00	450,540.00	8,398.00	0
37	8/30/2018	95	8,603.00	8,949.00	5,695.00	450,580.00	8,290.50	0
38	8/30/2018	94	8,610.00	9,068.00	5,909.00	450,780.00	7,348.70	0
39	8/30/2018	98	8,832.00	9,164.00	6,134.00	450,540.00	7,493.00	0

05/03/2019

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/10/2018
Job End Date:	8/30/2018
State:	West Virginia
County:	Wetzel
API Number:	47-103-03212-00-00
Operator Name:	EQT Production
Well Name and Number:	516785
Latitude:	39.56745300
Longitude:	-80.51662300
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,475
Total Base Water Volume (gal):	14,183,254
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	ProFrac	Carrier/Base Fluid	Water	7732-18-5	100.00000	87.12207	None
ProFe 105	ProFrac	Iron Control		Listed Below			

RECEIVED
Office of Oil and Gas
NOV 28 2018
WV Department of Environmental Protection

Silver SI - 800	Silverback Chemical, LLC	Anti-Scalant							
						Listed Below			
ProHib 100	ProFrac	Acid Corrosion Inhibitor							
						Listed Below			
ProVis 4.0	ProFrac	Gel Breaker							
						Listed Below			
Other Chemical (s)	Listed Above	See Trade Name (s) List							
						Listed Below			
Bio Matar 123	Silverback Chemical, LLC	Biocide							
						Listed Below			
Silver FR-931	Silverback Chemical, LLC	Friction Reducer							
						Listed Below			
Sand (Proppant)	ProFrac	Proppant							
						Listed Below			
ProBreak 100	ProFrac	Gelling Agent							
						Listed Below			
Hydrochloric Acid (15%)	ProFrac	Acidizing							
						Listed Below			

RECEIVED
 Office of Oil and Gas
 NOV 28 2018
 WV Department of
 Environmental Protection

Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.		Listed Below				
	Silica Substrate	14808-60-7	100.00000	12.60933	None	
	Petroleum Distillates, Hydrotreated Light Naphthenic	64742-53-6	60.00000	0.04652	None	
	Proprietary Polymers	Proprietary	60.00000	0.04652	None	
	Proprietary Polymers	Proprietary	60.00000	0.04652		
	Petroleum Distillates, Hydrotreated Light Naphthenic	64742-53-6	60.00000	0.04652		
	Hydrochloric Acid	7647-01-0	15.00000	0.02488	None	
	Non-Hazardous Substances	Proprietary	90.00000	0.02006	None	
	Non-Hazardous Substances	Proprietary	90.00000	0.02006		
	Glutaraldehyde	111-30-8	20.00000	0.00446		
	Glutaraldehyde	111-30-8	20.00000	0.00446	None	
	Polycarboxylic Acid Salt Mixture	Proprietary	40.00000	0.00082	None	
	Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00067	None	
	Alkyl Dimethyl Benzyl Ammonium Chloride	68391-01-5	3.00000	0.00067		
	Alkyl Dimethyl Benzyl Ammonium Chloride	68391-01-5	3.00000	0.00067	None	
	Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00067		
	Methanol	67-56-1	90.00000	0.00036	None	
	Hydrotreated Light Distillate(Petroleum)	64742-47-8	65.00000	0.00026	None	
	Gum Guar	9000-30-0	50.00000	0.00020	None	
	Citric Acid	77-92-9	100.00000	0.00006	None	
	Citric Acid	77-92-9	100.00000	0.00006		
	Ammonium Persulfate	7727-54-0	100.00000	0.00003	None	
	Xylene	1330-20-7	5.00000	0.00002		

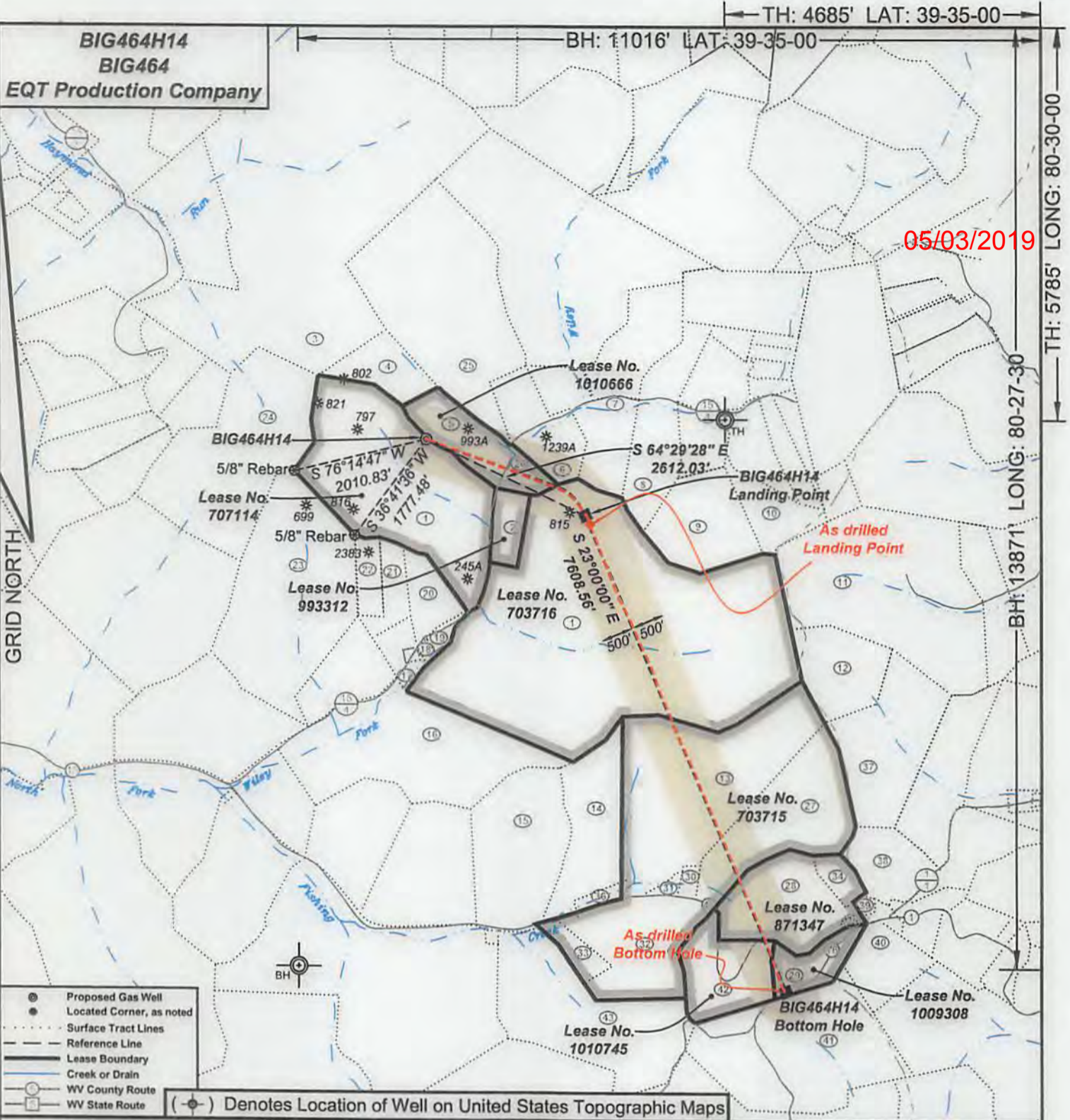
RECEIVED
Office of Oil and Gas
NOV 28 2018
WV Department of Environmental Protection

API# 47-103-03212		Final Formations		Well# BIG464H14 (516785)	
Formation Name	Drill Top MD (ftKB)	Drill Top (TVD) (ftKB)	Drill Btm MD (ftKB)	Drill Btm (TVD) (ftKB)	
SAND/SHALE	1	1	562	562	
WAYNESBURG COAL	562	562	565	565	
SAND/SHALE	565	565	801	801	
COAL	801	801	803	803	
SAND/SHALE	803	803	903	903	
SEWICKLEY COAL	903	903	905	905	
SAND/SHALE	905	905	918	918	
PITTSBURGH COAL	918	918	925	925	
SAND/SHALE	925	925	1818	1818	
MAXTON	1818	1818	1997	1997	
SAND/SHALE	1997	1997	2260	2260	
BIG LIME	2260	2260	2336	2336	
SAND/SHALE	2336	2336	2348	2348	
BIG INJUN	2348	2348	2417	2417	
SAND/SHALE	2417	2417	2546	2546	
WEIR	2546	2546	2696	2696	
SAND/SHALE	2696	2696	2761	2761	
GANTZ	2761	2761	2797	2797	
SAND/SHALE	2797	2797	2902	2902	
FIFTY FOOT	2902	2902	2958	2958	
SAND/SHALE	2958	2958	2997	2997	
THIRTY FOOT	2997	2997	3024	3024	
SAND/SHALE	3024	3024	3053	3053	
GORDON	3053	3053	3098	3098	
SAND/SHALE	3098	3098	3123	3123	
FORTH SAND	3123	3123	3136	3136	
SAND/SHALE	3136	3136	3195	3195	
FIFTH SAND	3195	3195	3214	3214	
SAND/SHALE	3214	3214	3248	3248	
BAYARD	3248	3248	3266	3266	
SAND/SHALE	3266	3266	3671	3671	
WARREN	3671	3671	3695	3695	
SAND/SHALE	3695	3695	3791	3791	
SPEECHLEY	3791	3791	3839	3839	
SAND/SHALE	3839	3839	4149	4149	
BALLTOWN A	4149	4149	4164	4164	
SAND/SHALE	4164	4164	4634	4631	
RILEY	4634	4631	4676	4671	
SAND/SHALE	4676	4671	5263	5152	
BENSON	5263	5152	5312	5189	
SAND/SHALE	5312	5189	5677	5459	
ALEXANDER	5677	5459	5744	5509	
ELKS	5744	5509	7684	7000	
SONYEA	7684	7000	7882	7153	
MIDDLESEX	7882	7153	7957	7211	
GENESEE	7957	7211	8082	7305	
GENESEO	8082	7305	8125	7335	
TULLY	8125	7335	8164	7361	
HAMILTON	8164	7361	8435	7475	
MARCELLUS	8435	7475	16233	7654	

RECEIVED
Office of Oil and Gas

NOV 28 2018

WV Department of
Environmental Protection



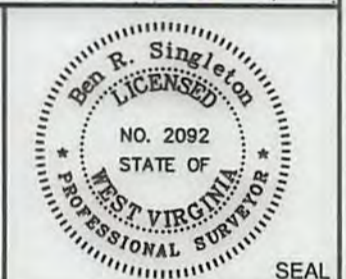
05/03/2019



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: 125-16
 DRAWING NO: 125-16 BIG464H14
 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

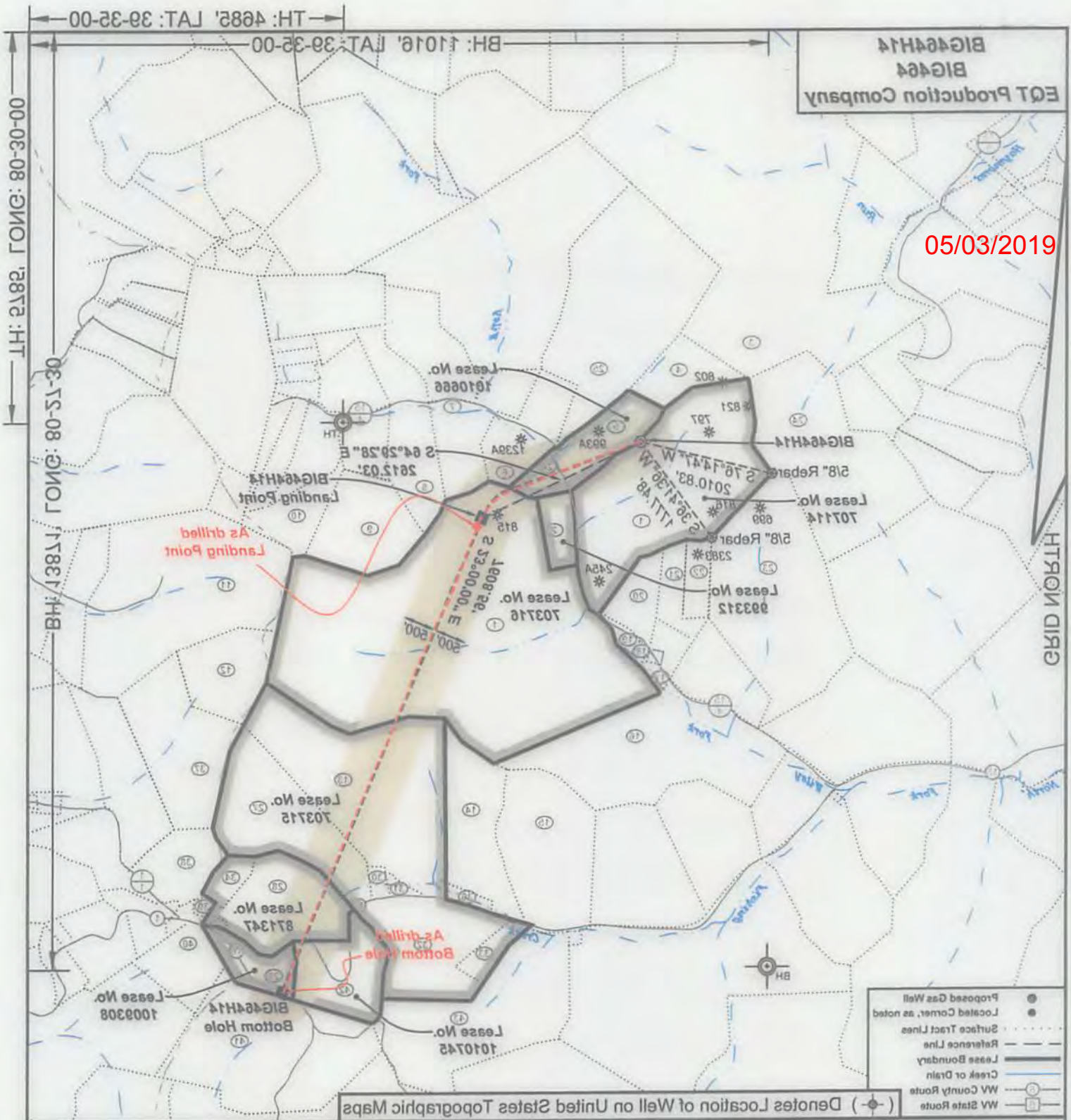
DATE: July 25 20 18
 OPERATOR'S WELL NO.: BIG464H14
 API WELL NO
 47 - 103 - 03212
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: As Built: 1246.8' WATERSHED: Wiley Fork QUADRANGLE: Big Run
 DISTRICT: Grant COUNTY: Wetzel
 SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timberlands Company ACREAGE: 542.5
 ROYALTY OWNER: Ridgetop Royalties LLC, et al LEASE NO: 707114 ACREAGE: 78
 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: 7,419'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280
 Bridgeport, WV 26330 Bridgeport, WV 26330

BIG464
BIG464
EQT Production Company

05/03/2019



(-)- Denotes Location of Well on United States Topographic Maps



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.

P.S. 2092



FILE NO. 125-18
DRAWING NO. 125-18 BIG464H14
SCALE: 1" = 200'
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

STATE COUNTY PERMIT
47 - 103 - 03212
API WELL NO
OPERATOR'S WELL NO.: BIG464H14
DATE: July 25 20 18

WELL OPERATOR: EQT Production Company
ADDRESS: 115 Professional Place PO Box 280
Biddeford, WV 26830

DESIGNATED AGENT: Jason Ranson
ADDRESS: 115 Professional Place PO Box 280
Biddeford, WV 26830

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

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: 7419'

LOCATION: ELEVATION: As Built: 1248.8' WATERSHED: Wiley Fork
DISTRICT: Grant COUNTY: Wetzel QUADRANGLE: Big Run

SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timbers Company ACREAGE: 542.5
ROYALTY OWNER: Ridgely Royalties LLC, et al LEASE NO: 707114 ACREAGE: 78

BIG464H14
BIG464
EQT Production Company

Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	20	1	Wetzel	Grant	Coastal Forest Resources Co.	542.50
2	15	27	Wetzel	Grant	William J. Barr	10.00
3	14	6	Wetzel	Grant	Coastal Lumber Co.	332.00
4	14	27	Wetzel	Grant	The E. Loma Howard Trust, LLC, et al.	22.00
5	14	34	Wetzel	Grant	The E. Loma Howard Trust, LLC, et al.	25.25
6	15	16	Wetzel	Grant	Donald J. D'Lusky	25.00
7	15	18	Wetzel	Grant	Donald J. D'Lusky	36.40
8	15	29	Wetzel	Grant	Terry W. & Carolyn P. Phillips	40.00
9	15	34	Wetzel	Grant	John C. & Donald J. D'Lusky	42.00
10	15	35	Wetzel	Grant	John C. & Donald J. D'Lusky	17.63
11	43	11	Marion	Mannington	Robert & Maxine Tonkery	85.00
12	43	11.1	Marion	Mannington	David A. & Diane E. Floyd	30.00
13	20	3	Wetzel	Grant	Chester R. & Audra I. Powell	99.82
14	20	2	Wetzel	Grant	Marsha L. Barr, et al.	41.40
15	20	2.1	Wetzel	Grant	Larry & Mary Shimp	83.00
16	19	10.3	Wetzel	Grant	Richard M. & Mary G. Underwood	99.82
17	19	14	Wetzel	Grant	William D. & Mabel F. Barr	1.00
18	19	12	Wetzel	Grant	William D. & Mabel F. Barr	1.10
19	19	13	Wetzel	Grant	William D. & Mabel F. Barr	2.00
20	14	45	Wetzel	Grant	Coastal Forest Resources Co.	11.06
21	14	44	Wetzel	Grant	Mabel F. Barr	11.00
22	14	43	Wetzel	Grant	Mabel F. Barr	11.01
23	14	42	Wetzel	Grant	Donald J. D'Lusky	111.00
24	14	33	Wetzel	Grant	Alice & Hilda Conaway	108.00
25	14	20	Wetzel	Grant	Elvie L. Hill Trust	126.50
26	none	none	Wetzel	Grant	Unknown	unknown
27	20	4	Wetzel	Grant	Jennifer L. Archer, et al.	70.00
28	20	10	Wetzel	Grant	Chester R. & Sandra L. Craver	46.78
29	20	11	Wetzel	Grant	Nancy Wyckoff, et al.	16.41
30	20	3.1	Wetzel	Grant	Gary F. Fisher	2.25
31	20	3.2	Wetzel	Grant	Linda Conwin, et al.	1.18
32	20	8	Wetzel	Grant	Stephen J. & Richard M. Underwood	64.00
33	20	7	Wetzel	Grant	Bernard D. Holbert, et al.	8.00
34	20	12	Wetzel	Grant	Beverly Powell, et al.	6.74
35	20	14	Wetzel	Grant	Chester R. & Sandra L. Craver	1.00
36	20	7.1	Wetzel	Grant	John H. Frye, Jr. & Denise Frye	3.91
37	45	29	Marion	Mannington	Raymond C. Teagarden	61.017
38	45	30	Marion	Mannington	Keith A. & Rita G. Powell	21.90
39	20	13	Wetzel	Grant	Beverly Powell, et al.	1.80
40	45	1	Marion	Mannington	Nancy Wyckoff, et al.	26.75
41	20	18	Wetzel	Grant	EQT Production Company	107.63
42	20	9	Wetzel	Grant	Roger B. & Mary A. Powell	34.50
43	20	8	Wetzel	Grant	Bernard D. Holbert, et al.	102.50

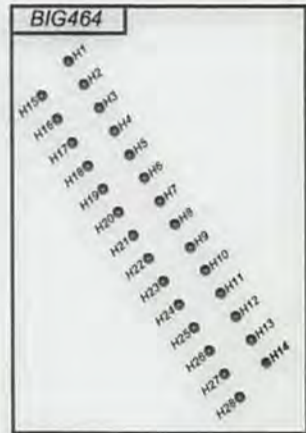
As Drilled Well Information:
BIG464H14 coordinates are
NAD 27 N: 390,410.47 E: 1,713,406.24
NAD 83 UTM N: 4,379,871.44 E: 541,536.36

BIG464H14 Landing Point coordinates are
NAD 27 N: 389,158.54 E: 1,715,841.81
NAD 83 UTM N: 4,379,502.43 E: 542,284.75

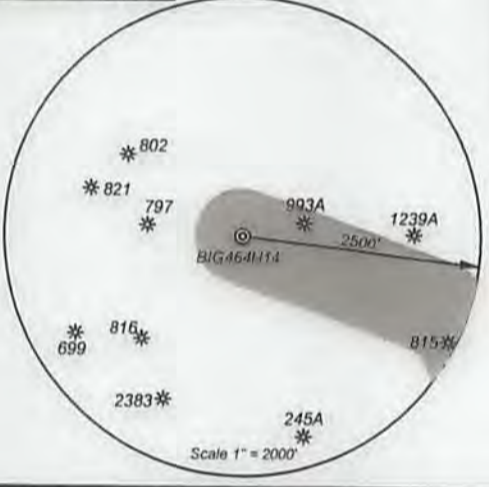
BIG464H14 Bottom Hole coordinates are
NAD 27 N: 382,275.14 E: 1,715,841.81
NAD 83 UTM N: 4,377,419.95 E: 543,196.11

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.

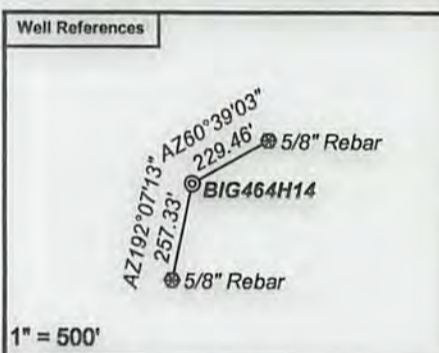
05/03/2019



Lease No.	Acres	Owner
703716	400	Ridgetop Royalties LLC, et al
1010666	32	Ridgetop Royalties LLC, et al
703715	375.67	Nancy Hobbs, et al
871347	52.5	William B. Francik & Pamela Francik, et al
1009308	16.41	Keith A. Powell, et al
1010745	34.5	Jim Ott, et al

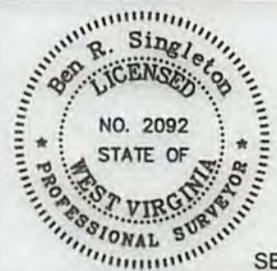


- ⊙ Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- ⊙ WV County Route
- ⊙ WV State Route



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: 125-16
DRAWING NO: 125-16 BIG464H14
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: July 25 20 18
OPERATOR'S WELL NO.: BIG464H14
API WELL NO
47 - 103 - 03212
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As Built: 1246.8' WATERSHED: Wiley Fork QUADRANGLE: Big Run

DISTRICT: Grant COUNTY: Wetzel

SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timberlands Company ACREAGE: 542.5

ROYALTY OWNER: Ridgetop Royalties LLC, et al LEASE NO: 707114 ACREAGE: 78

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: 7,419'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson
ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280
Bridgeport, WV 26330 Bridgeport, WV 26330

Tax Map No.	Parcel No.	County	District	Owner	Acres
1	20	West	Grant	Coastal Forest Resources Co.	243.20
2	21	West	Grant	William J. Barr	10.00
3	22	West	Grant	Coastal Lumber Co.	303.00
4	23	West	Grant	The E. Lomas Howard Trust, LLC, et al.	32.00
5	24	West	Grant	The E. Lomas Howard Trust, LLC, et al.	32.20
6	25	West	Grant	Donald I. Druzy	32.00
7	26	West	Grant	Donald I. Druzy	38.80
8	27	West	Grant	Tony W. & Carolyn F. Phillips	40.00
9	28	West	Grant	John C. & Donald I. Druzy	42.00
10	29	West	Grant	John C. & Donald I. Druzy	17.60
11	30	Manning	Manning	Robert & Maxine Tomney	80.00
12	31	Manning	Manning	David A. & Diane E. Floyd	30.00
13	32	West	Grant	Charles R. & Andrea I. Powell	98.80
14	33	West	Grant	Martha L. Barr, et al.	41.40
15	34	West	Grant	Larry & Mary Shing	80.00
16	35	West	Grant	Brian M. & Mary G. Lindwood	80.20
17	36	West	Grant	William D. & Mabel F. Barr	1.00
18	37	West	Grant	William D. & Mabel F. Barr	1.10
19	38	West	Grant	William D. & Mabel F. Barr	1.00
20	39	West	Grant	Coastal Forest Resources Co.	11.00
21	40	West	Grant	Mabel F. Barr	11.00
22	41	West	Grant	Mabel F. Barr	11.00
23	42	West	Grant	Donald I. Druzy	111.00
24	43	West	Grant	Alan & Hilda Conway	108.00
25	44	West	Grant	Ellis J. Hill Trust	128.00
26	45	West	Grant	Unknown	Unknown
27	46	West	Grant	Janette L. Archer, et al.	10.00
28	47	West	Grant	Charles R. & Andrea I. Powell	48.70
29	48	West	Grant	Nancy Wyckoff, et al.	88.41
30	49	West	Grant	Guy F. Turner	1.28
31	50	West	Grant	Linda Conway, et al.	1.18
32	51	West	Grant	Stephen J. & Richard M. Lindwood	84.00
33	52	West	Grant	Brian D. Holbert, et al.	3.00
34	53	West	Grant	Beverly Powell, et al.	8.74
35	54	West	Grant	Charles R. & Andrea I. Powell	1.00
36	55	West	Grant	John H. Frye, Jr. & Conner Frye	3.97
37	56	Manning	Manning	Raymond C. Tappan	87.07
38	57	Manning	Manning	Keith A. & Rita G. Powell	21.80
39	58	West	Grant	Beverly Powell, et al.	1.80
40	59	Manning	Manning	Nancy Wyckoff, et al.	28.70
41	60	West	Grant	EQT Production Company	107.80
42	61	West	Grant	Roger B. & Mary A. Powell	24.80
43	62	West	Grant	Brian D. Holbert, et al.	105.80

05/03/2019

UTM coordinates are NAD83, Zone 17, Meters.
 Well location references are based upon the grid north meridian.
 Plat orientation, corner and well ties are based upon the grid north meridian.
 West Virginia Coordinate system of 1927 (North Zone) based upon Differential GPS Measurements.

BIG464H14 Bottom Hole coordinates are
 NAD 83 UTM N: 385,325.14 E: 1,718,718.86
 NAD 83 UTM N: 4,373,419.89 E: 543,186.11

BIG464H14 Landmark Point coordinates are
 NAD 83 UTM N: 388,128.54 E: 1,718,841.81
 NAD 83 UTM N: 4,378,871.44 E: 541,288.36

As Drilled Well Information:
 BIG464H14 coordinates are
 NAD 83 UTM N: 390,410.47 E: 1,713,408.24
 NAD 83 UTM N: 4,378,871.44 E: 541,288.36

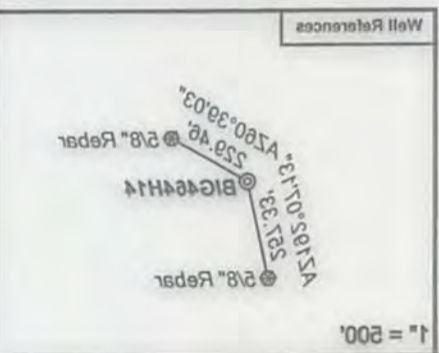


Owner	Acres	Lease No.
Jim Ott, et al	34.5	1010245
William B. Franck & Pamela Franck, et al	52.5	871347
Keith A. Powell, et al	16.41	1009308
William B. Franck & Pamela Franck, et al	52.5	703715
Nancy Hobbs, et al	372.67	703715
RidgeTop Royalties LLC, et al	32	1010666
RidgeTop Royalties LLC, et al	400	703716



Legend:

- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route



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.

Jason Ranson
 P.S. 2092



STATE PERMIT 03212 - 47 - 103 - API WELL NO
 COUNTY PERMIT 03212 - 47 - 103 - API WELL NO
 OPERATOR'S WELL NO.: BIG464H14
 DATE: July 25, 2018

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

FILE NO.: 125-16
 DRAWING NO.: 125-16 BIG464H14
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1:2500
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL

(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As Built: 1248.8' WATERSHED: Wiley Fork
 QUADRANGLE: Big Run

DISTRICT: Grant COUNTY: West

SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timberlands Company
 ACREAGE: 542.5

ROYALTY OWNER: RidgeTop Royalties LLC, et al
 LEASE NO.: 707114 ACREAGE: 78

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: 7,419'

WELL OPERATOR: EQT Production Company
 ADDRESS: 115 Professional Place PO Box 280 Bldgport, WV 26330

DESIGNATED AGENT: Jason Ranson
 ADDRESS: 115 Professional Place PO Box 280 Bldgport, WV 26330