



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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Wednesday, December 3, 2025
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY
2200 ENERGY DRIVE

CANONSBURG , PA 15317

Re: Permit Modification Approval for BIG 177 106H
47-103-03726-00-00

Extended Lateral

EQT PRODUCTION COMPANY

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.



H. Jason Harmon
Acting Chief

Operator's Well Number: BIG 177 106H
Farm Name: COASTAL FOREST RESOURCES COMPANY
U.S. WELL NUMBER: 47-103-03726-00-00
Horizontal 6A New Drill
Date Modification Issued: 12/3/2025

Promoting a healthy environment.

12/05/2025

WW-6B
(04/15)

API NO. 47-103 - 03726
OPERATOR WELL NO. 106H
Well Pad Name: BIG177

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: EQT Production Company 306686 Wetzel Grant Big Run
Operator ID County District Quadrangle

2) Operator's Well Number: 106H Well Pad Name: BIG177

3) Farm Name/Surface Owner: Coastal Forest Resources Co. Public Road Access: Rt 19

4) Elevation, current ground: 811' Elevation, proposed post-construction: 811'

5) Well Type (a) Gas X Oil _____ Underground Storage _____
Other _____

(b) If Gas Shallow X Deep _____ CK# 0000609693
Horizontal X CK# 2,500.00

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 6,849', 51', 2,620 PSI

8) Proposed Total Vertical Depth: 6,849'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 18,103'

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11) Proposed Horizontal Leg Length: 10,120' OCT 24 2025

12) Approximate Fresh Water Strata Depths: 147', 173', 283', 483', 633'

WV Department of
Environmental Protection

13) Method to Determine Fresh Water Depths: Offset wells

14) Approximate Saltwater Depths: 1,338', 1,330', 1,401', 1,453'

15) Approximate Coal Seam Depths: 103', 156', 434', 498'

16) Approximate Depth to Possible Void (coal mine, karst, other): none anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No X

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

WW-6B
(04/15)

API NO. 47- 103 - 03726
OPERATOR WELL NO. 106H
Well Pad Name: BIG177

18)

CASING AND TUBING PROGRAM

TYPE	<u>Size</u> <u>(in)</u>	<u>New</u> <u>or</u> <u>Used</u>	<u>Grade</u>	<u>Weight per ft.</u> <u>(lb/ft)</u>	<u>FOOTAGE: For</u> <u>Drilling (ft)</u>	<u>INTERVALS:</u> <u>Left in Well</u> <u>(ft)</u>	<u>CEMENT:</u> <u>Fill-up</u> <u>(Cu. Ft.)/CTS</u>
Conductor	26	New	A252	85.6	93	93	95 ft^3 / CTS
Fresh Water	13 3/8	New	J-55	54.5	768	768	725 ft^3 / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2011	2011	750 ft^3 / CTS
Production	5 1/2	New	P-110	20	18103	18103	500' above intermediate casing
Tubing							
Liners							

TYPE	<u>Size (in)</u>	<u>Wellbore</u> <u>Diameter (in)</u>	<u>Wall</u> <u>Thickness</u> <u>(in)</u>	<u>Burst Pressure</u> <u>(psi)</u>	<u>Anticipated</u> <u>Max. Internal</u> <u>Pressure (psi)</u>	<u>Cement</u> <u>Type</u>	<u>Cement</u> <u>Yield</u> <u>(cu. ft./k)</u>
Conductor	26	30	0.312	1000	18	Class A/L	1.04 - 1.20
Fresh Water	13 3/8	17 1/2	0.380	2730	2184	Class A/L	1.04 - 1.20
Coal							
Intermediate	9 5/8	12 3/8 - 12 1/4	0.352	3520	2816	Class A/H/L	1.04 - 1.20
Production	5 1/2	8 3/4 - 8 1/2	0.361	14360	11488	Class A/H/L	1.04 - 2.10
Tubing							
Liners							RECEIVED Office of Oil and Gas

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PACKERS

Kind:				
Sizes:				
Depths Set:				

Page 2 of 3
Digitally signed by Stephen
Stephen Mccoy
Date: 2025.10.09 08:23:24
-04'00'

12/05/2025

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill and complete a new horizontal well in the Marcellus Formation. Drill the vertical, kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

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20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10,000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000-600,000 pounds of proppant per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): NA - site built

22) Area to be disturbed for well pad only, less access road (acres): NA - site built

23) Describe centralizer placement for each casing string:

- Surface: Bow spring centralizers – One centralizer at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers – One centralizer at the shoe and one spaced every 500'.
- Production: One solid body centralizer spaced every other joint from production casing shoe to landing point. One solid body centralizer spaced every joint from landing point to planned top of cement.

24) Describe all cement additives associated with each cement type:

Conductor: Class A no additives
Surface: Calcium Chloride. Used to speed the setting of cement slurries
Intermediate: Calcium Chloride. Used to speed the setting of cement slurries. If applicable: Gas Migration Control Additive, Cement Retarder
Production: Calcium Carbonate, Fluid Loss, Extender, Dispersant, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

25) Proposed borehole conditioning procedures:

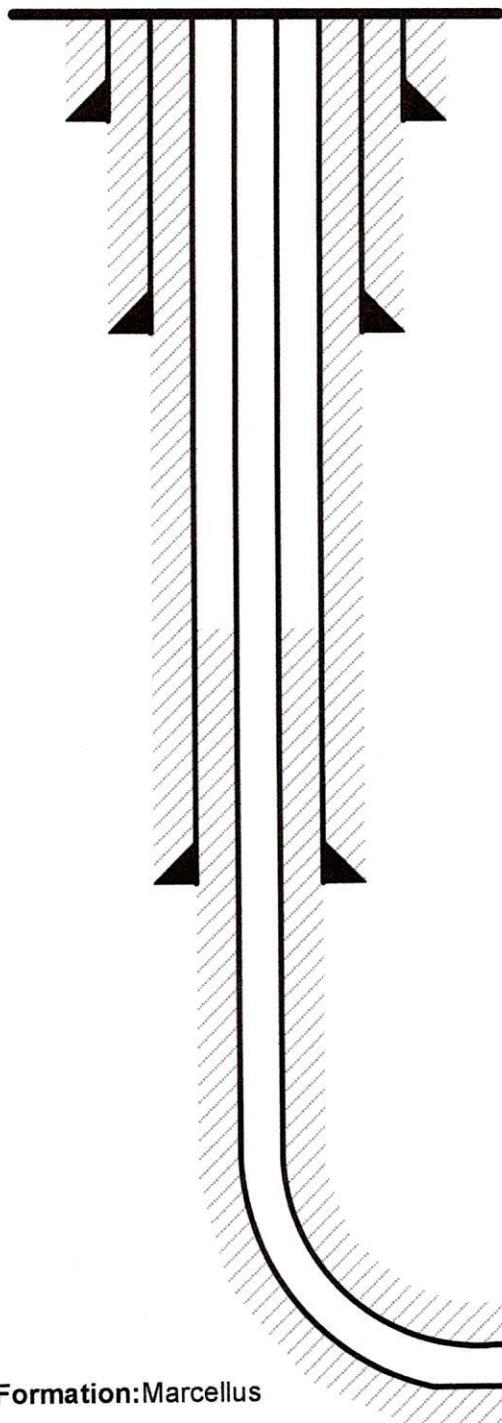
Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.

Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.

Production: Perform a cleanup cycle by pumping 3-8 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

*Note: Attach additional sheets as needed.

EQT Production		Wellbore Diagram	
Well:	BIG177 106H	County:	Wetzel
Pad:	BIG177	State:	West Virginia
Elevation:	811' GL 824' KB		



Conductor @ 93'

26", 85.6#, A252, cement to surface w/ Class A/L

Surface @ 768'

13-3/8", 54.5#, J-55, cement to surface w/ Class A/L

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Intermediate @ 2,011'

9-5/8", 36#, J-55, cement to surface w/ Class A/H/L

Production @ 18,103' MD / 6,849' TVD

5-1/2", 20#, P-110, cement to 500' inside 9-5/8" w/ Class A/H/L

Formation: Marcellus

NOT TO SCALE

12/05/2025

WW-6A1
(5/13)

Operator's Well No. BIG177 106H

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See attached list				

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**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: EQT Production Company
By: Branden Weimer
Its: Regional Manager - Permitting



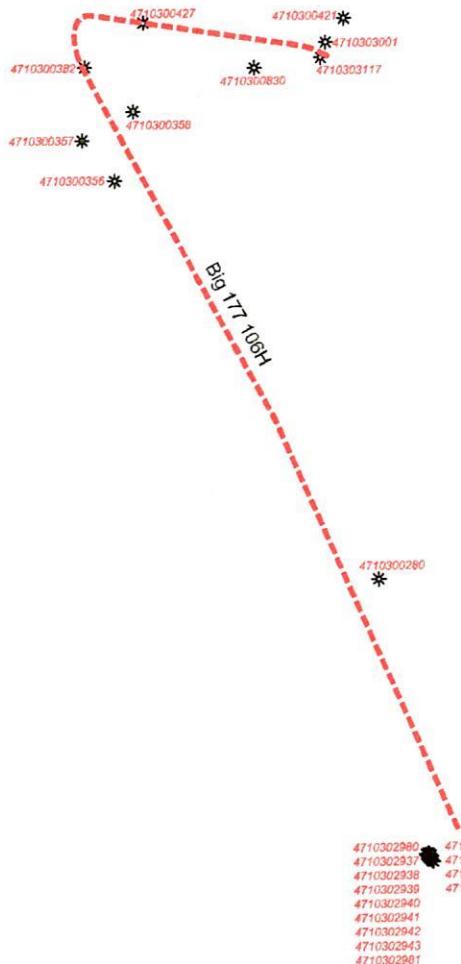
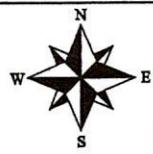
Page 1 of 3

Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
	<u>Stone Hill Minerals Holdings, LLC, et al.</u>			"at least 1/8th per WV Code 22-6-8"	
<u>140893000</u>	Stone Hill Minerals Holdings, LLC TH Exploration, LLC	113.80 ac of 1,588.27 ac	TH Exploration, LLC EQT Production Company		OG 240A/628 OG 258A/333
<u>223567000</u>	<u>Shiben Estates, Inc.</u> Shiben Estates, Inc.	100 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 305A/741
<u>136602002</u>	<u>Shiben Estates, Inc.</u> Mary Barr and Roland Barr Pittsburgh and West Virginia Gas Company Equitable Gas Company Equitrans, Inc. Equitable Gas Company, LLC, et al.	60 ac	Pittsburgh & West Virginia Gas Company Equitable Gas Company Equitrans, Inc. Equitable Gas Company LLC Equitrans, L.P.	"at least 1/8th per WV Code 22-6-8"	OG 35A/370 DB 187/321 OG 71A/453 Corp. Book 13/213 Misc 105/908
<u>259841047</u>	<u>William Joseph Carlin Estate Trust, et al.</u> William Joseph Carlin Estate Trust	39 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 379A/553
<u>101209000</u>	<u>Shiben Estates, Inc.</u> Esther Peters, Paul J. Shiben, Katheine Mensore and Edward Shiben, as Executors of the Estates of Joseph and Minnie Shiben, and Shiben Estates, Inc. Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Exploration & Production, Inc., Dominion Transmission, Inc., Dominion Appalachian Development, LLC. Antero Resources Appalachian Corporation	297.50 ac RECEIVED WV Department of Environmental Protection Office of Oil and Gas OCT 24 2025	Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Exploration & Production, Inc., Dominion Transmission, Inc., Dominion Appalachian Development, LLC. Antero Resources Appalachian Corporation EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 54A/503 OG 66A/69 MB 152/718 OG 95A/937 OG 127A/195

Force Pool Tract(s) Within Lease Boundaries

Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
<u>121095000</u>	<u>Coastal Forest Resources Company, et al.</u> James V. Higgins The Philadelphia Company of West Virginia Pittsburgh and West Virginia Gas Company Equitable Gas Company Equitrans, Inc. Equitable Gas Company, LLC, et al. Equitrans, L.P.	300 ac	The Philadelphia Company of West Virginia Pittsburgh and West Virginia Gas Company Equitable Gas Company Equitrans, Inc. Equitable Gas Company LLC Equitrans, L.P. EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 60/414 OG 22A/352 DB 187/321 OG 71A/453 Corp. Book 13/213 Misc 105/908 OG 131A/81
<u>121095012</u>	<u>Coastal Forest Resources Company, et al.</u> Coastal Forest Resources Company, d/b/a Coastal Timberlands Company	57.5 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 147A/664
<u>107062000</u>	<u>Kevin S. Goff</u> Kevin S. Goff, a/k/a Kevin Goff	48.25 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 163A/843
<u>120728000</u>	<u>EQT Production Company, et al.</u> Mikel Barr, et al. The Philadelphia Company The Philadelphia Company of West Virginia Pittsburgh and West Virginia Gas Company Equitable Gas Company Equitrans, Inc. Equitable Gas Company, LLC, et al. Equitrans, L.P.	450 ac	The Philadelphia Company The Philadelphia Company of West Virginia Pittsburgh and West Virginia Gas Company Equitable Gas Company Equitrans, Inc. Equitable Gas Company LLC Equitrans, L.P. EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 47/558 DB 47/561 OG 22A/352 DB 187/321 OG 71A/453 Corp. Book 13/213 Misc 105/908 OG 131A/81
<u>288170000</u>	<u>State of West Virginia, Department of Commerce, Division of Natural Resources</u> State of West Virginia, Department of Commerce, Division of Natural Resources	4.7938 ac & 3.1172 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	OG 424A/138

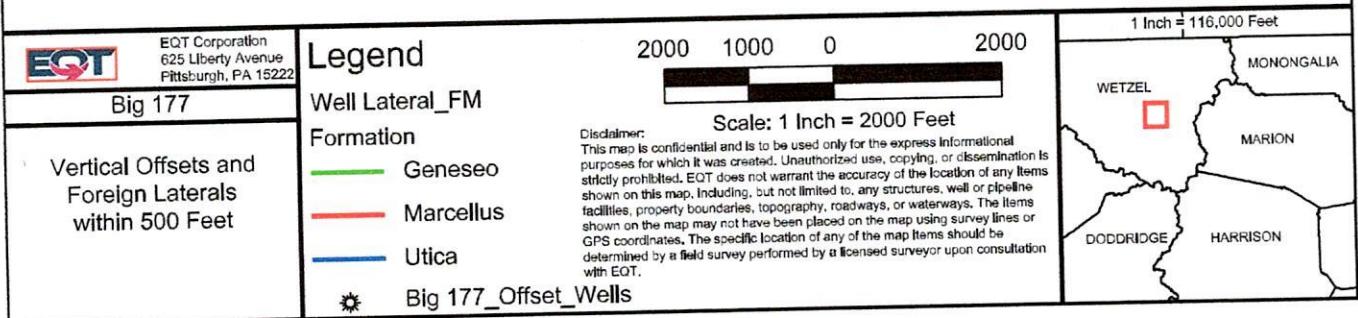
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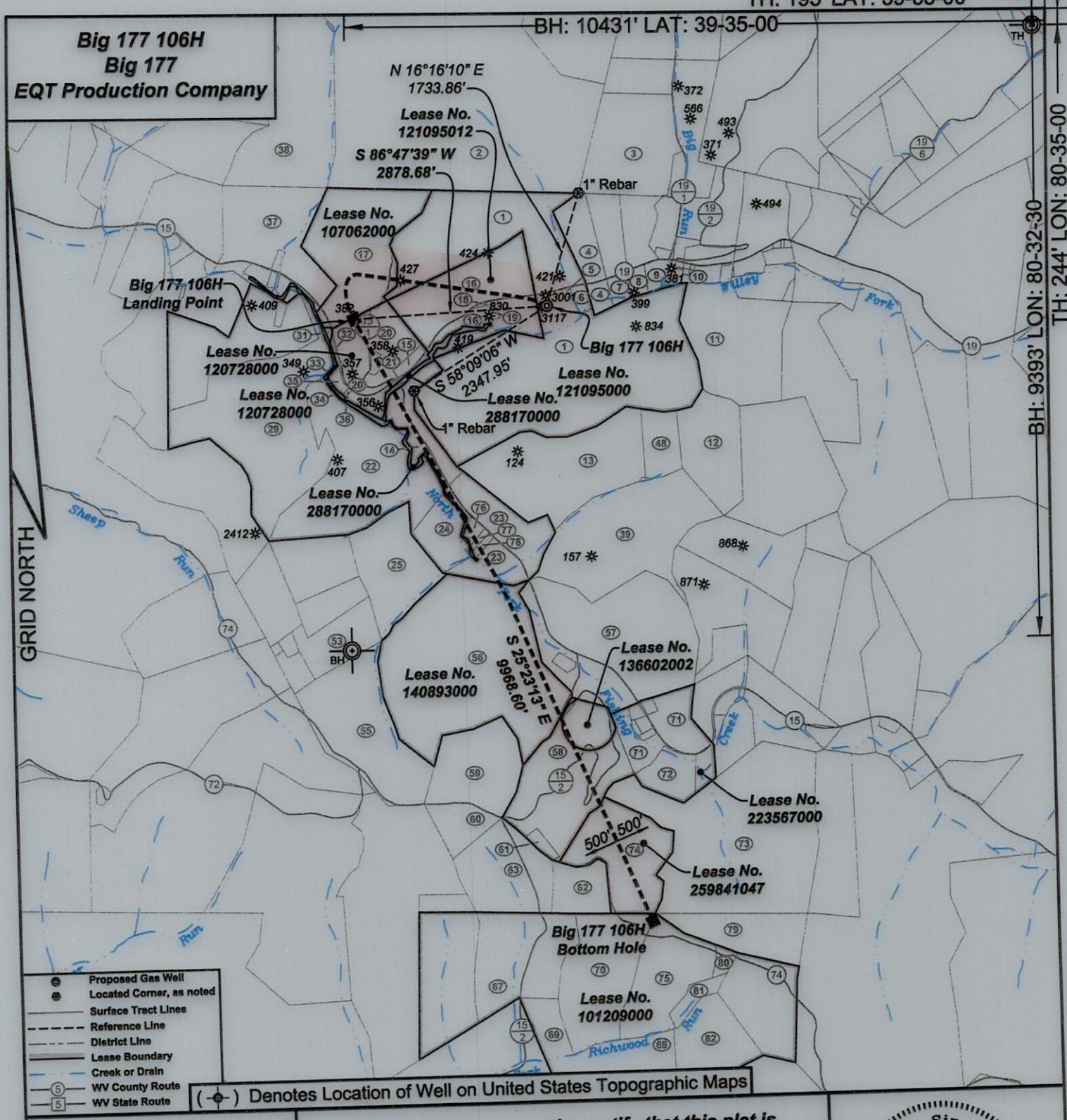


12/05/2025

BIG177 106H Area of Review

API	Status	Current Operator	Latitude	Longitude	Projected TD	Spud Date	Elevation	TOT Depth
103-00421	NA	PEMCO Gas	39.588116	-80.467722		10/29/1955	823	521
103-00830	1/5/2018	Equitrans LP	39.582000	-80.586600		12/2/1896	809	2681
103-00356	8/24/1959	Unknown	39.578589	-80.592933		7/29/1949	793	515
103-03117	NA	EQT Prod						
103-03001	NA	EQT Prod						
103-00358	7/18/1959	Unknown	39.580830	-80.592160		9/12/1949	921	635
103-00427	NA	JCR Petroleum	39.583692	-80.591755		4/12/1956	1153	925
103-00382	NA	Unknown	39.582256	-80.594203		6/26/1952	936	658
103-00357	8/24/1959	Unknown	39.578589	-80.592933		9/12/1949	793	515
103-00280	NA	Diversified	39.565652	-80.581899		6/13/1942	1107	3270
103-02980	NA	EQT Prod	39.556711	-80.580004	7568	5/17/2014	1443	12009
103-02937	NA	EQT Prod	39.556682	-80.579967	7563	3/18/2014	1443	15752
103-02938	NA	EQT Prod	39.556652	-80.579929	7427	3/18/2014	1474	15349
103-02939	NA	EQT Prod	39.556623	-80.579892	7420	3/18/2014	1474	15263
103-02940	NA	EQT Prod	39.556594	-80.579854	7573	3/18/2014	1443	15345
103-02941	NA	EQT Prod	39.556565	-80.579816	7566	3/18/2014	1443	17430
103-02942	NA	EQT Prod	39.556536	-80.579779	7423	3/18/2014	1443	16780
103-02943	NA	EQT Prod	39.556507	-80.579741	7578	3/18/2014	1443	15552
103-02981	NA	EQT Prod	39.556478	-80.579703	7423	5/19/2014	1443	17660
103-03014	NA	EQT Prod	39.556754	-80.579910	7544	11/7/2014	1443	13996
103-03015	NA	EQT Prod	39.556725	-80.579873	7306	11/7/2014	1443	15506
103-03016	NA	EQT Prod	39.556696	-80.579835	7576	11/7/2014	1443	14140
103-03017	NA	EQT Prod	39.556667	-80.579798	7304	11/7/2014	1443	13823

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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.

P.S. 2092



FILE NO: 352-23
DRAWING NO: Big 177 106H
SCALE: 1" = 1000'
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: October 10 20 25
OPERATOR'S WELL NO.: Big 177 106H
API WELL NO
47 - 103 -
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 810.5' WATERSHED Willey Fork of North Fork Fishing Creek QUADRANGLE: Big Run

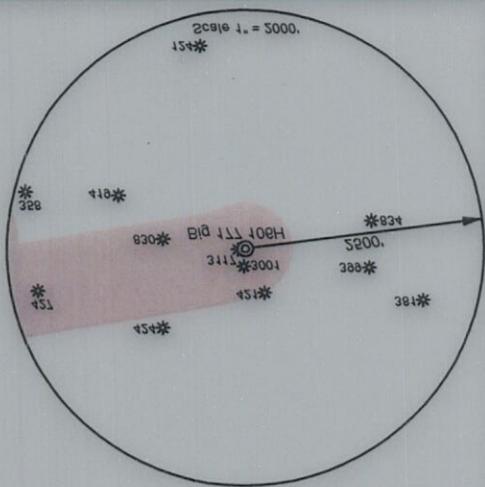
DISTRICT: Grant COUNTY: Wetzel ACREAGE: 12.19

SURFACE OWNER: Coastal Forest Resources Company
ROYALTY OWNER: Coastal Forest Resources Company, et al. LEASE NO: 121095000 ACREAGE: 300

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: 6849'

WELL OPERATOR: EQT Production Company
ADDRESS: 2200 Energy Drive
Canonsburg, PA 15317

DESIGNATED AGENT: Joseph C. Mallow
ADDRESS: 427 Midstate Drive
Clarksburg, WV 26301



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MTU sind derzeit die einzigen, die auf der Basis des 12-Zylinder-Motors eine 1000 PS leistende Einheit herstellen.

new brands come in, and new ones leave. The market is dynamic, and it's important to stay on top of these changes to maintain a competitive edge.

12/05/2025

916 *Seafarers in the Motto of the Royal Yacht Squadron* 1984.1.3 E. 62.158.266.1 N. 15 DAN
948.158.266.1 E. 62.158.266.1 N. 15 DAN
GP8812.08. 62.158.266.1 N. 15 DAN

24.152.400.1 E DE 4/41. 002: N 15 DAN
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Section:

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2200 Energy Drive | Canonsburg, PA 15317

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October 23, 2025

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Via FedEx Overnight

WV Department of
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West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304

RE: Horizontal Well Work Expedited Permit Modification Request
BIG177 106H (103-03726), BIG177 108H (103-03727), & BIG177 110H (103-03728)
Grant District, Wetzel County, WV

WVDEP Recipient,

Please consider this our formal request for modifications to the wells referenced above. Included with each permit application is a modification permit fee (\$2,500). The modification request to these wells are for lateral extensions. Please note that well BIG177 106H (103-03726) is included in the BIG177 SW1 unit pooling application with the WV OGCC.

EQT trusts that if any portion of the submitted documentation is found to be inadequate for processing the permit, notification will be made to our Permitting department at your earliest convenience. It is EQT Production's intent to cooperate fully to provide any additional requested documentation and clarification in a timely manner such that permitting proceeds in a predictable and logical manner.

Best Regards,

Kristen Brooks
Permitting Specialist
kristen.brooks@eqt.com

12/05/2025