



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

Tuesday, June 12, 2018
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY
625 LIBERTY AVE., SUITE 1700

PITTSBURGH, PA 15222

Re: Permit Modification Approval for BIG177H5
47-103-03189-00-00

Adjust bottom hole location

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.

James A. Martin
Chief

Operator's Well Number: BIG177H5
Farm Name: COASTAL FOREST RESOURCES CO. D/B/A COA 
U.S. WELL NUMBER: 47-103-03189-00-00
Horizontal 6A New Drill
Date Modification Issued: June 12, 2018

Promoting a healthy environment.

06/15/2018



47-103-03189
MOD

November 3, 2017

Laura Adkins
West Virginia Department of Environmental Protection
601 57th Street SE
Charleston, WV 25304

Re: Modification of 47-10303189

Dear Ms. Adkins,

Attached is a modification for the above API number. The bottom hole was adjusted.

If you have any questions, please do not hesitate to contact me at (304) 848-0076.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Vicki Roark'.

Vicki Roark
Regional Land Supervisor

Enc.

RECEIVED
Office of Oil and Gas
NOV - 6 2017
WV Department of
Environmental Protection

BIG177H5
BIG177
EQT PRODUCTION COMPANY

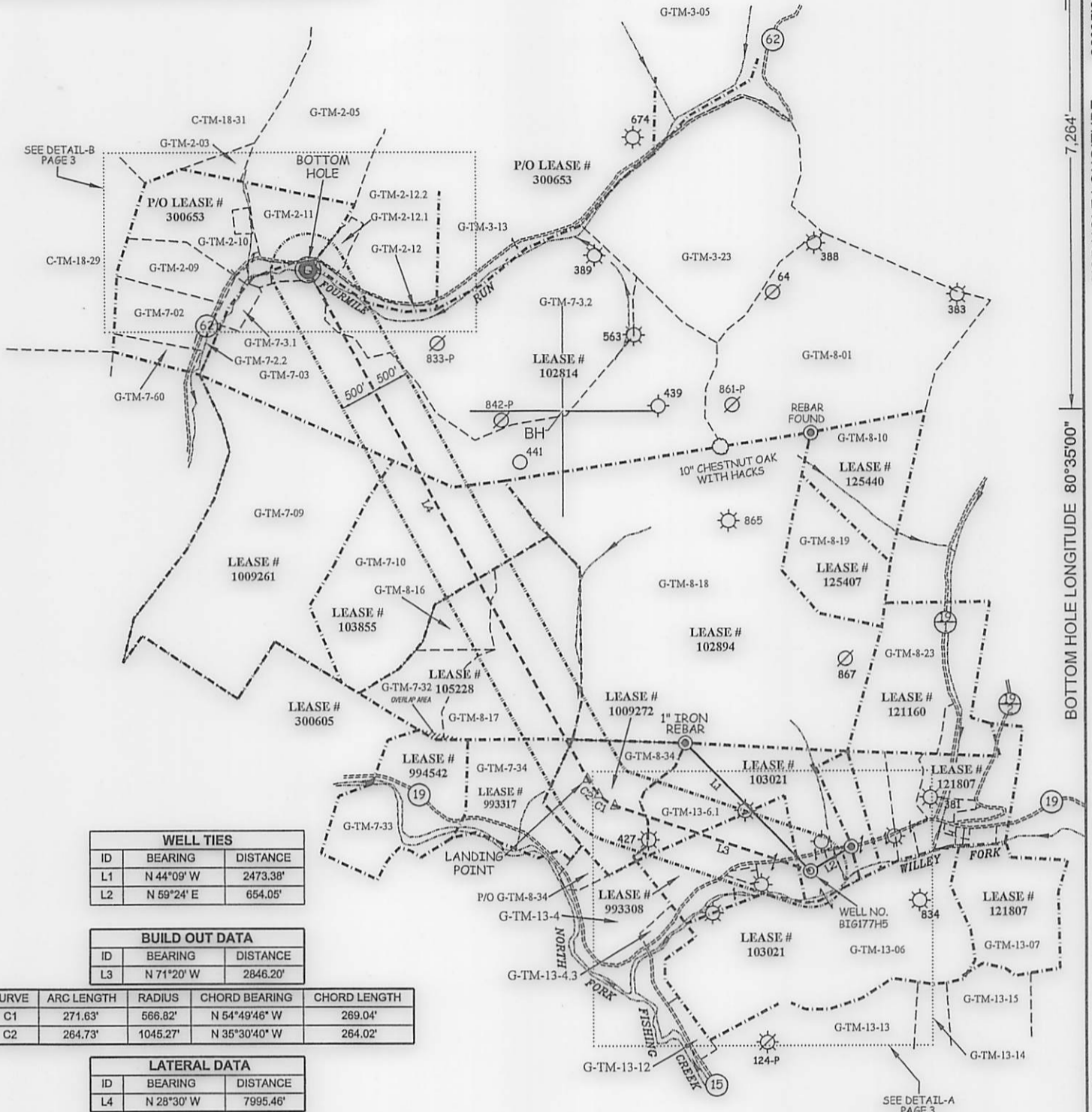
BOTTOM HOLE LATITUDE 39°37'30"
 7,206'

TH

TOP HOLE LONGITUDE 80°35'00"

BOTTOM HOLE LONGITUDE 80°35'00"

NAD'27 GRID NORTH



WELL TIES		
ID	BEARING	DISTANCE
L1	N 44°09' W	2473.38'
L2	N 69°24' E	654.05'

BUILD OUT DATA		
ID	BEARING	DISTANCE
L3	N 71°20' W	2846.20'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	271.63'	566.82'	N 54°49'46" W	269.04'
C2	264.73'	1045.27'	N 35°30'40" W	264.02'

LATERAL DATA		
ID	BEARING	DISTANCE
L4	N 28°30' W	7995.46'

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 Solutions from the ground up.
 P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5834
 www.slssurveys.com

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)			
NAD'27 S.P.C.(FT)	N. 396,107.39	E. 1,694,445.87	
NAD'27 GEO.	LAT-(N) 39.582484	LONG-(W) 80.584118	
NAD'83 UTM (M)	N. 4,381,510.506	E. 535,730.872	
LANDING POINT			
NAD'27 S.P.C.(FT)	N. 397,387.89	E. 1,691,375.99	
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BOTTOM HOLE			
NAD'27 S.P.C.(FT)	N. 404,414.44	E. 1,687,560.89	
NAD'27 GEO.	LAT-(N) 39.605058	LONG-(W) 80.608908	
NAD'83 UTM (M)	N. 4,384,006.271	E. 533,591.110	

VICTOR MOYERS
 LICENSED
 No. 849
 STATE OF
 WEST VIRGINIA
 PROFESSIONAL SURVEYOR

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

LEGEND

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- DRILL PATH BEND POINT
- GRANT DISTRICT TAX MAP-PARCEL G-TM-00-00
- CENTER DISTRICT TAX MAP-PARCEL C-TM-00-00

SCALE 1" = 2000' FILE NO. 6806PBIG177H5-R2.dwg
 DATE MAY 4, 20 17
 REVISED 10/26/17 & 10/31/17
 OPERATORS WELL NO. BIG177H5
 API WELL NO. 47 - 103 - 03189
 STATE COUNTY PERMIT

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

WELL OPERATOR EQT PRODUCTION COMPANY	DESIGNATED AGENT REX C. RAY
ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330	ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

COUNTY NAME PERMIT

06/15/2018

BIG177H5
BIG177
EQT PRODUCTION COMPANY

BOTTOM HOLE LATITUDE 39°37'30"
 7,206'

TH

309'

80°35'00"

7,264'

80°35'00"

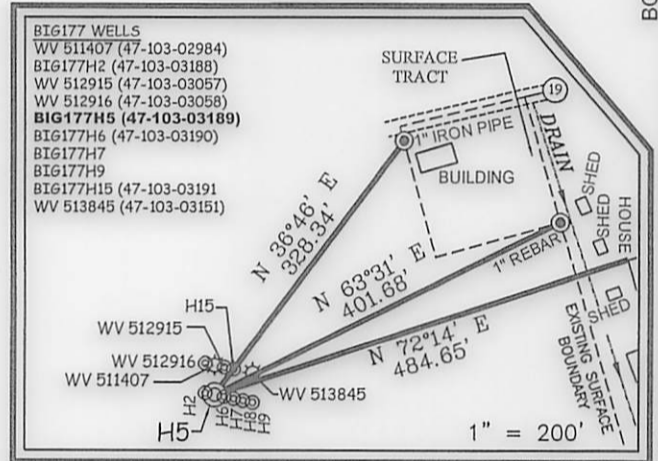
SURFACE OWNERS

G-TM-2-03	DALE K. DULANEY ET UX	5.57 ACRES±	G-TM-7-32	STELLA & LEEK POSTLETHWAIT ET AL	44.60 ACRES±
G-TM-2-04	JOHN C. COMER ET UX	104.00 ACRES±	G-TM-7-33	JOHN R. & ROSA MARGELLEA COOK	20 ACRES±
G-TM-2-05	EDWIN L. DULANEY ET UX	104.00 ACRES±	G-TM-7-34	KENNETH & LORRAINE WILDMAN	44.60 ACRES±
G-TM-2-09	ROBERT W. DULANEY	22.87 ACRES±	G-TM-7-60	CODY N. & WALTER N., JR. NORRIS	10 ACRES±
G-TM-2-10	HARLEY R. DULANEY	38 ACRES±	G-TM-8-16	O. J. & MINNIE M. WYATT HEIRS	31.89 ACRES±
G-TM-2-10.1	TEORA L. & SANDRA J. DULANEY	1.53 ACRES±	G-TM-8-17	KENNETH & LORRAINE WILDMAN	67 ACRES±
G-TM-2-10.2	ROBERT W. DULANEY	.45 ACRES±	G-TM-8-18	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	337 ACRES±
G-TM-2-10.3	ROBERT W. DULANEY	.09 ACRES±			
G-TM-2-10.4	HARLEY R. DULANEY	0.130 ACRES±			
G-TM-2-11	EDWIN LEO & LINDA L. DULANEY	26.4 ACRES±	G-TM-8-19	PHILLIP & KIMBERLY SHREVE	46.45 ACRES±
G-TM-2-12	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	3.63 ACRES±	G-TM-8-23	DALE DULANEY ET AL	70.81 ACRES±
			G-TM-8-34	HALLIE HARDBARGER	54.01 ACRES±
G-TM-2-12.1	TEORA L. & SANDRA DULANEY	4.72 ACRES±	G-TM-8-35	DEBORAH FRONCZEK ET AL	15.5 ACRES±
G-TM-2-12.2	TEORA & SANDRA DULANEY	66.64 ACRES±	G-TM-8-58	HIGGINS CHAPEL CHURCH OF CHRIST	0.99 ACRES±
G-TM-2-13	ROBERT W. DULANEY	2.14 ACRES±	G-TM-8-64	MARY BASTHAM ET AL	1.45 ACRES±
G-TM-2-14	TEORA L. & SANDRA J. DULANEY	498 ACRES±	G-TM-8-65	IKKEY & TINA WILLEY	2.15 ACRES±
G-TM-2-15	TEORA L. & SANDRA J. DULANEY	1.023 ACRES±	G-TM-8-66	EOM GATHERING OPOC LLC	0.42 ACRES±
G-TM-2-16	TEORA L. DULANEY	3.187 ACRES±	G-TM-13-4	JEFF, VIRGIL, JR. & DONNAH WILLEY	26.80 ACRES±
G-TM-3-05	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	179.00 ACRES±	G-TM-13-6	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	217.19 ACRES±
G-TM-3-13	EDWARD L. DULANEY II	164.75 ACRES±	G-TM-13-6.1	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	55.06 ACRES±
G-TM-3-23	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	167.75 ACRES±			
G-TM-7-02	ROBERT W. DULANEY	19.43 ACRES±	G-TM-13-07	MANSIE MCDIFFITT ET AL	51.8 ACRES±
G-TM-7-2.1	HARLEY R. DULANEY, JR.	2 ACRES±	G-TM-13-12	LESLIE & MIRACLE SUSAN LYDICK	15.02 ACRES±
G-TM-7-2.2	CODY N. & WALTER N., JR. NORRIS	2.43 ACRES±	G-TM-13-13	LEEMANE & LINDA L. DUNN	67.5 ACRES±
G-TM-7-03	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	178 ACRES±	G-TM-13-14	LEEMANE & LINDA L. DUNN	12.5 ACRES±
G-TM-7-3.1	ROBERT W. DULANEY	4 ACRES±	G-TM-13-15	ROBERT COLE ET AL.	27.75 ACRES±
			C-TM-18-29	BERNARD LEE, JR & EVELYN M. YOHO	372.90 ACRES±
G-TM-7-3.2	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	156.98 ACRES±	C-TM-18-31	JAMES L. DULANEY, (L/E) DONALD & OLIVE DULANEY	130 19/32 ACRES±
G-TM-7-9	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	170.875 ACRES±			
G-TM-7-10	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	120 ACRES±			

NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS 2500 SQ. FT. OR GREATER, WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD. SEE REFERENCE BOX FOR DWELLING WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE (SHEET 3) AND TOPO MARK IS SCALE 1" = 2000'.

REFERENCES



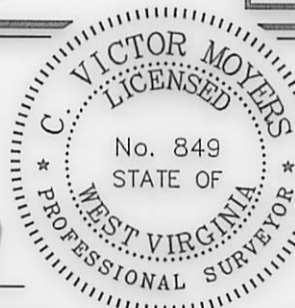
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 www.slsurveys.com

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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. *C. Victor Moyers*
 849



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE MAY 4, 20 17

REVISED 10/26/17 & 10/31/17

OPERATORS WELL NO. BIG177H5

API WELL NO. 47-103-03189
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 6806PBIG177H5-R2.dwg
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE SEE NOTE 2

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



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

LOCATION:
 PAD ELEVATION 811' WATERSHED WILLEY FORK OF NORTH FORK FISHING CREEK
 DISTRICT GRANT COUNTY WETZEL QUADRANGLE BIG RUN 7.5'
 SURFACE OWNER COASTAL FOREST RESOURCES CO. d/b/a COASTAL TIMBERLANDS CO. ACREAGE 27± OF 217±
 ROYALTY OWNER HIGGINS FAMILY TRUST ET AL. ACREAGE 242.5 LEASE NO. 103021

PROPOSED WORK:
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH 6,886'

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

COUNTY NAME PERMIT

47 103 03 189 mo

WW-6A1 attachment

Operator's Well No.

BIG177H5

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
	Higgins Family Trust, et al. (current royalty owner)		**	
103021	James V. Higgins (Original Lease)	The Philadelphia Company of West Va.		DB 60/414
	The Philadelphia Company of West Va.	Pittsburgh & West Virginia Gas Company		DB 98/146
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		DB 187/321
	Equitable Gas Company	Equitrans, Inc.		OG 71A/453
	Equitrans, Inc.	Equitrans, LP		AB 105/915
	Equitrans, L.P.	EQT Production Company		DB 131A/81
	Coastal Forest Resources Company, d/b/a Coastal			
993308	Lumber Company, et al.	EQT Production Company	**	DB 147A/664
1009272	Kevin S. Goff	EQT Production Company		OG 163A/843
993317	Higgins Family Trust, et al.	EQT Production Company	**	DB 149A/198
	The Irrevocable Intervivos Trust of Billy J. Higgins and Frances J. Higgins Family Trust dated January 10, 2012, et al. (current royalty owner)		**	
105228	J. E. Bartlett, et al. (Original Lease)	The Philadelphia Company of West Virginia		DB 111/491
	The Philadelphia Company of West Virginia	Pittsburgh & West Virginia Gas Company		DB 22A/352
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		DB 187/321
	Equitable Gas Company	Equitrans, Inc.		AB 71/453
	Equitrans, Inc.	Equitrans, LP		AB 105/915
	Equitrans, LP	Equitable Production-Eastern States Inc. (EPES)		AB 23/899 Marioi
	Equitable Production-Eastern States Inc. (EPES)	Equitable Production Company		see attached
	Equitable Production Company	EQT Production Company		CB 13/14
	Shiben Estates Inc. (current royalty owner)		**	
103855	C.J. Lavelle (Original Lease)	Fisher Oil Company		DB 58/49
	Fisher Oil Company	Philadelphia Company of WV		DB 22A/352
	Philadelphia Company of WV	Pittsburgh and WV Gas Company		DB 187/321
	Pittsburgh and WV Gas Company	Equitable Gas Company		DB 71A/453
	Equitable Gas Company	Equitrans, Inc.		AB 71/453
	Equitrans, Inc.	Equitrans, LP		AB 105/915
	Equitrans, LP	Equitable Production-Eastern States Inc. (EPES)		AB 23/899 Marioi
	Equitable Production-Eastern States Inc. (EPES)	Equitable Production Company		see attached
	Equitable Production Company	EQT Production Company		CB 13/14
102814	Joseph Shiben and Minnie Shiben Estate, et al.	EQT Production Company	**	DB 182A/84

** Per West Virginia Code Section 22-6-8.

RECEIVED
Office of Oil and Gas

NOV - 6 2017

WV Department of
Environmental Protection

06/15/2018