



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, September 17, 2025
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for Parks Unit 2H
47-095-02940-00-00

Lateral Extension with Forced Pooling

ANTERO RESOURCES CORPORATION

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: Parks Unit 2H
Farm Name: EQT Production Co.
U.S. WELL NUMBER: 47-095-02940-00-00
Horizontal 6A New Drill
Date Modification Issued: 09/17/2025

Promoting a healthy environment.

09/19/2025

WW-6B
(04/15)

API NO. 47-095 - 02940
OPERATOR WELL NO. Parks Unit 2H MOD
Well Pad Name: Delta Pad

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

- 1) Well Operator: Antero Resources Corporation 494507062 095 - Tyler Ellsworth Porter Falls 7.5'
Operator ID County District Quadrangle
- 2) Operator's Well Number: Parks Unit 2H MOD Well Pad Name: Delta Pad
- 3) Farm Name/Surface Owner: EQT Production Co Public Road Access: CR 44
- 4) Elevation, current ground: 1100' Elevation, proposed post-construction: 1078'
- 5) Well Type (a) Gas X Oil Underground Storage
Other
(b) If Gas Shallow X Deep
Horizontal X
- 6) Existing Pad: Yes or No No
- 7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 7300' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#
- 8) Proposed Total Vertical Depth: 7300' TVD
- 9) Formation at Total Vertical Depth: Marcellus
- 10) Proposed Total Measured Depth: 17500' MD
- 11) Proposed Horizontal Leg Length: 6448' *Open to modification at a later date
- 12) Approximate Fresh Water Strata Depths: 672'
- 13) Method to Determine Fresh Water Depths: 47095020320000 Offset well records. Depths have been adjusted according to surface elevations.
- 14) Approximate Saltwater Depths: 1463'
- 15) Approximate Coal Seam Depths: 787'
- 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:
CK # 4044672 Depth:
7500' Seam:
8/18/2025 Owner:

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09/18/2025
Stephen Mccoy
Digitally signed by Stephen Mccoy
Date: 2025.08.15 10:42:52 -04'00'

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	J-55	94#	100'	100' ✓	CTS, 96 Cu. Ft. ✓
Fresh Water	13-3/8"	New	J-55	54.5#	722'	722' ✓	CTS, 752 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	3000'	3000' ✓	CTS, 1221 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P110-ICY	23#	17500'	17500' ✓	CTS, 3482 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.375"	2250	50	Class A/L	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A/L	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A/L	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	14,360	2500	Class G/H	~1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

PACKERS

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

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

Drill a new horizontal shallow well into the Marcellus Shale.

*Antero will be air drilling the fresh water string which makes it difficult to determine when fresh water is encountered. Therefore, we have built in a buffer for the casing setting depth which helps to ensure that all fresh water zones are covered.

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

Antero plans to pump Slickwater into the Marcellus Shale formation in order to ready the well for production. The fluid will be comprised of approximately 99 percent water and sand, with less than 1 percent special-purpose additives as shown in the attached "List of Anticipated Additives Used for Fracturing or Stimulating Well."

Anticipated Max Pressure - 9300 lbs

Anticipated Max Rate - 80 bpm

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 46.20 acres

22) Area to be disturbed for well pad only, less access road (acres): 13.43 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers

Surface Casing: one centralizer 10' above the float shoe, one on the insert float collar and one every 4th joint spaced up the hole to surface.

Intermediate Casing: one centralizer above float joint, one centralizer 5' above float collar and one every 4th collar to surface.

Production Casing: one centralizer at shoe joint and one every 3 joints to top of cement in intermediate casing.

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

Conductor: no additives, Class A/L cement.

Surface: Class A/L cement with 2-3% calcium chloride and 1/4 lb of flake

Intermediate: Class A/L cement with 1/4 lb of flake, 5 gallons of clay treat

Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51

Production: Tail cement- Class G/H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

Conductor: blowhole clean with air, run casing, 10 bbls fresh water.

Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.

Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.

Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

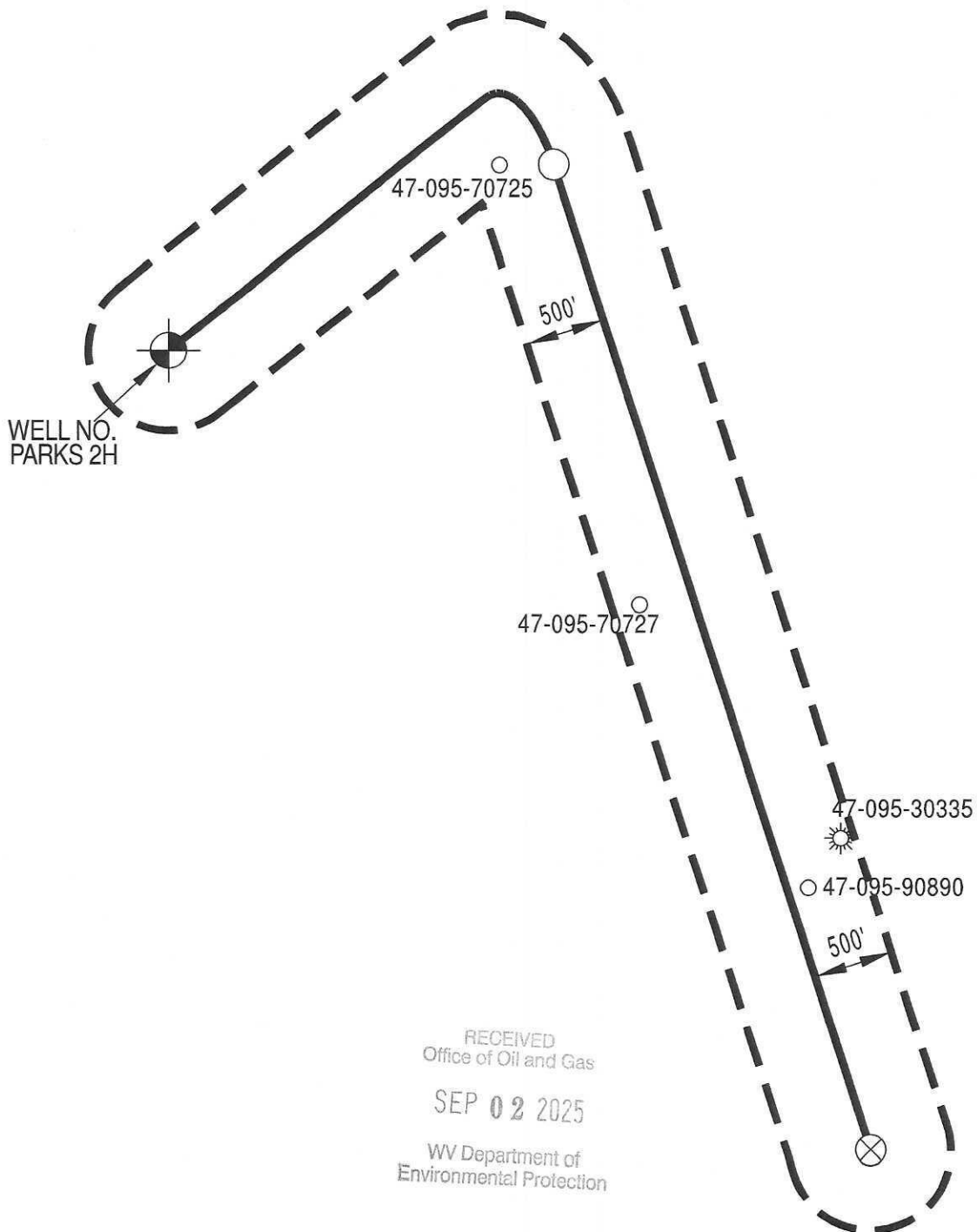
*Note: Attach additional sheets as needed.

09/19/2025

Stephen McCoy

Digitally signed by Stephen
McCoy
Date: 2025.08.15 10:42:10 -0400

DELTA PAD ANTERO RESOURCES CORPORATION



WILLOW LAND SURVEYING, PLLC
P.O. BOX 17, PENNSBORO, WV 26415
(304) 659-1717

JOB #: 24-014WA

DATE: 06/16/25

DRAWN BY: T.B.S.

FILE: PARKS2HAOR.DWG

SCALE : 1-INCH = 1000-FEET



09/19/2025

UWI (API Num)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
47095707250000	J C BENNETT	1330	HISTORIC OWNER	HISTORIC OWNER	2,747			Weir, Benson, Alexander
47095707270000	SANFORD HAUGHT	1	HISTORIC OWNER	HISTORIC OWNER	2,900			
47095303350000	F M PARK HEIRS 1	1328	MANUFACT LIGHT & HEAT	MANUFACT LIGHT & HEAT	2,773		Gordon Stray	Weir, Benson, Alexander
47095908900000								

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LATITUDE 39°32'30"

1,123'

LATITUDE 39°30'00"

8,430' TO BOTTOM HOLE

Antero Resources Corporation
Well No. Parks #2H

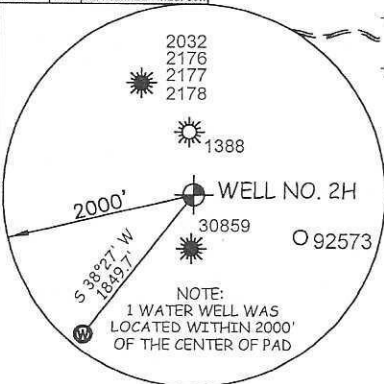
NOTES:
WELL 2H TOP HOLE INFORMATION:
N: 367,740ft E: 1,646,169ft
LAT: 39°30'10.38" LON: 80°45'14.33"
BOTTOM HOLE INFORMATION:
N: 362,757ft E: 1,650,553ft
LAT: 39°29'21.73" LON: 80°44'17.53"
WEST VIRGINIA COORDINATE
SYSTEM OF 1927 NORTH ZONE.
ZONE WAS DERIVED FROM
MEASUREMENTS TAKEN WITH
TRIMBLE GEOXT SUBMETER
MAPPING GRADE GPS UNIT.
PLAT ORIENTATION, CORNER,
AND WELL REFERENCE TIE LINES
ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 2H TOP HOLE INFORMATION:
N: 4,372,622m E: 521,167m
BOTTOM HOLE INFORMATION:
N: 4,371,126m E: 522,527m

(NAD) 27 (UTM) ZONE 17 COORDS:
WELL 2H TOP HOLE INFORMATION:
N: 14,345,130ft E: 1,709,813ft
POINT OF ENTRY INFORMATION:
N: 14,346,321ft E: 1,712,193ft
BOTTOM HOLE INFORMATION:
N: 14,340,222ft E: 1,714,278ft

WV NORTH ZONE
GRID NORTH

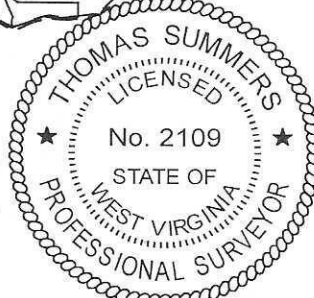
Ellsworth District - Tyler County	
17-40	Rodney & Cindy Adams
17-41	Robert & Sherry Ball
17-42	Robert & Sherry Ball
17-43	EQT Production Co.
17-44	EQT Production Co.
17-45	EQT Production Co.
17-47	John Bassett & Agnes Lewis
17-48	Jeremy Jury
18-4	Gary Fred Haught
18-6	Jack & Peggy Straight
18-7	Thomas Pratt Et Al
18-8	Donald & Alice Haught
18-11	Robert Miller
23-14	Wanda Parr
23-18	Rick Staley Et Al
23-19	Larry & Linda Lemasters
23-20	Larry & Linda Lemasters
23-21	Larry & Linda Lemasters
23-22	Larry & Linda Lemasters
23-23	Harley Lemasters
23-24	Harley Lemasters
23-26	Ricky Eidle
24-1	Michael & Teresa Bassett
24-2	Hornet Midstream Pipeline LLC
24-3	Michael & Teresa Bassett
24-4	John Lemasters Et Al
24-4.1	Thomas Lemasters
24-4.2	Harvey Lemasters
24-4.3	Thomas Lemasters
24-5	John Lemasters Et Al
24-6	Haessly Land & Timber LLC
24-7	Ricky Eidle
24-8	John Lemasters Et Al
24-9	John Lemasters Et Al
24-10	Larry & Linda Lemasters
24-11	Haessly Land & Timber LLC
McElroy District - Tyler County	
2-27	Myrtle Hannen
2-32	Michael Lemasters & Dina Weekley
3-1	Michael Lemasters & Dina Weekley
3-2	Alma Bees & Tree Farm
3-6	Ricky Eidle
3-26	Phillip & Melinda Anderson



NOTES
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD. THERE ARE NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF THE PROPOSED WELL.
2. LEASE BOUNDARY AND BEARINGS AND DISTANCES SHOWN HEREON ARE TAKEN FROM TYLER COUNTY DEEDS.

PAD LAYOUT	NOT TO SCALE
SAPINERO UNIT 1H	15'
SAPINERO UNIT 2H	15'
SAPINERO UNIT 3H	15'
SAPINERO UNIT 4H	15'
PARKS UNIT 1H	15'
PARKS UNIT 2H	15'
PARKS UNIT 3H	15'

REFERENCES



LESSOR	
B	GARY F. HAUGHT AND SHARON HAUGHT
C	ANDREW HAUGHT AND PLEASY HAUGHT
D	S.J. STRAIGHT AND S.F. STRAIGHT
E	CL. PARKS ET AL
H	RIVERWOOD RESOURCES, LLC.
K	BARBARA V. KITTLE
L	JO ANNE HASKINS
M	JO ANNE HASKINS
N	SUSAN ELAINE NUTTER

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 RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



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

WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415

JOB # 24-014WA
DRAWING # PARKS2H
SCALE 1" = 2000'
MINIMUM DEGREE OF
ACCURACY SUBMETER
PROVEN SOURCE OF ELEV.
SUBMETER MAPPING GRADE GPS

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

LEGEND
— Surface Owner Boundary Lines +/-
— Adjoining Surface Tracts +/-
— Found monument, as noted
THOMAS SUMMERS P.S. 2109
DATE 06/30/25
OPERATOR'S WELL# PARKS UNIT #2H

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

LOCATION: ELEVATION PROPOSED - 1,078.0' WATERSHED OUTLET MIDDLE ISLAND CREEK
QUADRANGLE PORTER FALLS 7.5' DISTRICT ELLSWORTH COUNTY TYLER

SURFACE OWNER EQT PRODUCTION CO. ACREAGE 103 ACRES +/-

OIL & GAS ROYALTY OWNER ANDREW & PLEASY HAUGHT LEASE ACREAGE 103 ACRES +/-

PROPOSED WORK: DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ REDRILL ☐ FRACTURE OR STIMULATE ☒
PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☒ OTHER PHYSICAL CHANGE IN WELL
(SPECIFY) MOD-BHL PLUG & ABANDON ☐ CLEAN OUT & REPLUG ☐

TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,300' TVD 17,500' MD

WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT CONRAD BASTON

ADDRESS 1615 WYNKOOP ST. ADDRESS 535 WHITE OAK BLVD.

FORM WW-6 DENVER, CO 80202 BRIDGEPORT, WV 26330

COUNTY NAME PERMIT

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:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>C: Andrew Haught and Pleasy Haught Lease</u>			
Andrew Haught & Pleasy Haught	Andrew Haught & Pleasy Haught	1/8	0039/0292
E.H. Jennings & Bros.	E.H. Jennings & Bros.	Assignment	0043/0110
Tri-State Gas Company	Tri-State Gas Company	Assignment	0080/0048
The Manufacturers Light & Heat Company	The Manufacturers Light & Heat Company	Assignment	0167/0423
Hundred Gas Company	Hundred Gas Company	Assignment	0201/0316
Carl D. Perkins	Carl D. Perkins	Assignment	0225/0574
Perkins Oil & Gas	Perkins Oil & Gas	Assignment	0390/0066
Stone Energy Corporation	Stone Energy Corporation	Assignment	0556/0132
EQT Production Company	Antero Resources Corporation	Assignment	0322/0216
<u>B: Gary F. Haught and Sharon Haught Lease</u>			
Gary F. Haught & Sharon Haught	Petroedge Energy, LLC	1/8	0381/0816
Petroedge Energy, LLC	Statoil USA Onshore Properties, Inc.	Assignment	0406/0147
Statoil USA Onshore Properties, Inc.	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Partial Assignment	0662/0727
<u>D: S.J. Straight and S.F. Straight Lease</u>			
S. J. Straight and S. F. Straight	The Wheeling Natural Gas Company	1/8	0074/0611
The Wheeling Natural Gas Company	The Manufacturers Light & Heat Company	Assignment	0080/0050
The Manufacturers Light & Heat Company	Union Gasoline & Oil Company	Assignment	0103/0313
Union Gasoline & Oil Company	The Preston Oil Company	Assignment	0130/0139
The Preston Oil Company	The Manufacturers Light & Heat Company	Assignment	0133/0471
The Manufacturers Light & Heat Company	Hundred Gas Company	Assignment	0167/0423
Hundred Gas Company	Carl D. Perkins	Assignment	0201/0316
Carl D. Perkins	Perkins Oil & Gas, Inc.	Assignment	0225/0574
Perkins Oil & Gas, Inc.	Stone Energy Corporation	Assignment	0390/0066
Stone Energy Corporation	EQT Production Company	Assignment	0556/0132
EQT Production Company	Antero Resources Corporation	Assignment	0662/0686
<u>E: C.L. Parks, et al Lease</u>			
C.L. Parks, et al	The Manufacturers Light & Heat Company	1/8	0098/0311
The Manufacturers Light & Heat Company	Union Gasoline & Oil Company	Assignment	0103/0313
Union Gasoline & Oil Company	The Preston Oil Company	Assignment	0130/0139
The Preston Oil Company	The Manufacturers Light & Heat Company	Assignment	0133/0471
The Manufacturers Light & Heat Company	Clarence Haught, et ux	Assignment	0158/0584
Clarence Haught, et ux	Hazel G. Haught	Assignment	032A/0146
Hazel G. Haught	Lee I. Haught, et al	Assignment	0057/0078
Lee I. Haught, et al	J A & M Oil & Gas Company	Assignment	066A/0628
J A & M Oil & Gas Company	Harvey J. Haught Heirs	Assignment	0289/0065
Harvey J. Haught Heirs	Perkins Oil & Gas, Inc.	Assignment	0326/0820
Perkins Oil & Gas, Inc.	Stone Energy Corporation	Assignment	0390/0066
Stone Energy Corporation	EQT Production Company	Assignment	0556/0132
EQT Production Company	Antero Resources Corporation	Assignment	0662/0686
<u>H: Riverwood Resources, LLC Lease</u>			
Riverwood Resources, LLC	Antero Resources Corporation	1/8	0229/0372
<u>K: Barbara V. Kittle Lease</u>			
Barbara V. Kittle	Antero Resources Corporation	1/8+	0229/0568

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- (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
<u>L: Jo Anne Haskins Lease</u>				
	Jo Anne Haskins	Antero Resources Corporation	1/8+	0293/0446

*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

*Co-tenancy utilization – Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with the development of certain royalty owners' interests in this tract.

**Pooling/Unitization – Antero has filed a horizontal well unitization application with the West Virginia Oil and Gas Conservation Commission that seeks to pool certain owners in this tract.

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: Antero Resources Corporation

By: Tim Rady

Its: Senior Vice President of Land

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