

Exhibit A-2
All Interest Owners

Tract	Current Mineral Owner	Leased/Fee Yes or No	Current Mineral Owner Interest in Tract	Total Acres in Unit	Current Mineral Owner Acres in Unit	Tract Participation	Antero Working Interest	Antero Unit Participation	XTO Energy, Inc. Working Interest	XTO Energy, Inc. Unit Participation	Adventura USA, Inc. Working Interest	Adventura USA, Inc. Unit Participation	Cal Group Joint Venture Working Interest	Cal Group Joint Venture Unit Participation	Unleased Working Interest	Unleased Unit Participation	Parcel ID	Township	Current Mineral Owner Address	
1	Daryl P. & Patricia M. Amaral	Yes	100.000%	55.450	55.450	7.188%	100.000%	7.188%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00584.000	Somerset	53839 Temperanceville Highway Barnesville, OH 43713	
2	Linda Weiss	Yes	50.000%	0.866	0.433	0.056%	100.000%	0.056%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00482.000	Somerset	52797 Boston Road Jerusalem, OH 43747	
2	LL&B Headwater I, LP	Yes	50.000%		0.433	0.056%	100.000%	0.056%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00482.000	Somerset	11412 Bee Cave Road Suite 301 Austin, TX 78738 Attn: Robert Rieck
3a	LL&B Headwater I, LP	Yes	50.000%	12.985	6.493	0.842%	100.000%	0.842%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00647.000	Somerset	11412 Bee Cave Road Suite 301 Austin, TX 78738 Attn: Robert Rieck	
3a	LL&B Headwater II, LP	Yes	50.000%		6.493	0.842%	100.000%	0.842%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00647.000	Somerset	11412 Bee Cave Road Suite 301 Austin, TX 78738 Attn: Robert Rieck
3b	Patrick A. McCort, Jr.	Yes	100.000%	32.716	32.716	4.241%	100.000%	4.241%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00647.000	Somerset	54700 Temperanceville Highway Barnesville, OH 43713	
4a	LL&B Headwater I, LP	Yes	100.000%	2.252	2.252	0.292%	100.000%	0.292%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00647.002	Somerset	11412 Bee Cave Road Suite 301 Austin, TX 78738 Attn: Robert Rieck	
4b	LL&B Headwater I, LP	Yes	100.000%	0.011	0.011	0.001%	100.000%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00647.002	Somerset	11412 Bee Cave Road Suite 301 Austin, TX 78738 Attn: Robert Rieck	
5	William J., Jr. & Michael G. Howler	Yes	100.000%	1.385	1.385	0.180%	100.000%	0.180%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00647.001	Somerset	55180 Washington Street Barnesville, OH 43713	
6	Wayne E. & Josie F. Back	Yes	100.000%	4.240	4.240	0.550%	100.000%	0.550%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01200.000	Somerset	53235 Temperanceville Highway Barnesville, OH 43713	
7	Thomas J. & Kathleen M. Miller	Yes	100.000%	3.274	3.274	0.424%	100.000%	0.424%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01197.000	Somerset	34562 Rock River Road Jerusalem, OH 43747	
8	Donald R. Hayes	Yes	16.667%	62.465	10.411	1.350%	100.000%	1.350%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01196.000	Somerset	32590 Township Highway 821 Barnesville, OH 43713	
8	Michael A. Hayes	Yes	16.667%		10.411	1.350%	100.000%	1.350%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01196.000	Somerset	53101 Temperanceville Highway Barnesville, OH 43713
8	Howard H. Hayes	Yes	16.667%		10.411	1.350%	100.000%	1.350%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01196.000	Somerset	135 East Walnut St. Barnesville, OH 43713
8	John L. Hayes	Yes	16.667%		10.411	1.350%	100.000%	1.350%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01196.000	Somerset	16451 State Route 376 Corning, OH 43730
8	Lawrence V. Hayes	Yes	16.667%		10.411	1.350%	100.000%	1.350%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01196.000	Somerset	615 Miller Street Caldwell, OH 43724
8	Patricia L. Hayes	Yes	16.667%		10.411	1.350%	100.000%	1.350%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01196.000	Somerset	330 S. Broadway Street Barnesville, OH 43713
9	William J., Jr. & Michael G. Howler	Yes	100.000%	8.447	8.447	1.095%	100.000%	1.095%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00622.000	Somerset	55180 Washington Street Barnesville, OH 43713	
10	Donald R. Hayes	Yes	16.667%	3.382	0.564	0.073%	100.000%	0.073%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01316.000	Somerset	32590 Township Highway 821 Barnesville, OH 43713	
10	Michael A. Hayes	Yes	16.667%		0.564	0.073%	100.000%	0.073%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01316.000	Somerset	53101 Temperanceville Highway Barnesville, OH 43713
10	Howard H. Hayes	Yes	16.667%		0.564	0.073%	100.000%	0.073%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01316.000	Somerset	135 East Walnut St. Barnesville, OH 43713
10	John L. Hayes	Yes	16.667%		0.564	0.073%	100.000%	0.073%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01316.000	Somerset	16451 State Route 37 E Corning, OH 43730
10	Lawrence V. Hayes	Yes	16.667%		0.564	0.073%	100.000%	0.073%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01316.000	Somerset	615 Miller Street Caldwell, OH 43724
10	Patricia L. Hayes	Yes	16.667%		0.564	0.073%	100.000%	0.073%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01316.000	Somerset	330 S. Broadway Street Barnesville, OH 43713
11	Michael A. & Diana L. Hayes	Yes	100.000%	2.430	2.430	0.315%	100.000%	0.315%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01316.002	Somerset	53101 Temperanceville Highway Barnesville, OH 43713	
11A	Michael A. & Diana L. Hayes	Yes	100.000%	0.092	0.092	0.012%	100.000%	0.012%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-01316.003	Somerset	53101 Temperanceville Highway Barnesville, OH 43713	
12	Donald R. & Elizabeth Ann Hayes	Yes	100.000%	7.767	7.767	1.007%	100.000%	1.007%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00065.000	Somerset	32590 Township Highway 821 Barnesville, OH 43713	
13	Donald R. Hayes	Yes	16.667%		9.742	1.263%	100.000%	1.263%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00342.000	Somerset	32590 Township Highway 821 Barnesville, OH 43713	
13	Michael A. Hayes	Yes	16.667%		9.742	1.263%	100.000%	1.263%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00342.000	Somerset	53101 Temperanceville Highway Barnesville, OH 43713

Exhibit A-2
All Interest Owners

13	Howard H. Hayes	Yes	16.667%	58.453	9.742	1.263%	100.000%	1.263%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00342.000	Somerset	135 East Walnut St. Barnesville, OH 43713	
13	John L. Hayes	Yes	16.667%		9.742	1.263%	100.000%	1.263%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00342.000	Somerset	16451 State Route 376 Corning, OH 43730
13	Lawrence V. Hayes	Yes	16.667%		9.742	1.263%	100.000%	1.263%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00342.000	Somerset	615 Miller Street Caldwell, OH 43724
13	Patricia L. Hayes	Yes	16.667%		9.742	1.263%	100.000%	1.263%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00342.000	Somerset	330 S. Broadway Street Barnesville, OH 43713
14	Hothem Family Properties, LP	Yes	100.000%	32.428	32.428	4.204%	100.000%	4.204%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00362.000	Somerset	999 East Lake Drive Gainesville, GA 30506-1729 Attn: Arden L. Hothem	
15	Hothem Family Properties, LP	Yes	100.000%	0.206	0.206	0.027%	100.000%	0.027%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	37-00364.000	Somerset	999 East Lake Drive Gainesville, GA 30506-1729 Attn: Arden L. Hothem	
16	Spencer M. & Janice M. Reed	Yes	100.000%	64.223	64.223	8.325%	100.000%	8.325%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	21-005006.0000	Seneca	57168 Batesville Road Quaker City, OH 43773	
17	Hothem Family Properties, LP	Yes	100.000%	177.389	177.389	22.994%	100.000%	22.994%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007003.0000	Malaga	999 East Lake Drive Gainesville, GA 30506-1729 Attn: Arden L. Hothem	
18	Hothem Family Properties, LP	Yes	100.000%	4.495	4.495	0.583%	100.000%	0.583%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007002.0000	Malaga	999 East Lake Drive Gainesville, GA 30506-1729 Attn: Arden L. Hothem	
19	Randall Brownfield	Yes	100.000%	7.918	7.918	1.026%	100.000%	1.026%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	21-005001.0000	Seneca	32826 Harper Ridge Road Woodsfield, OH 43793	
20	Stephen C. & Melanie Carpenter	Yes	100.000%	51.607	51.607	6.690%	100.000%	6.690%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007007.0000	Malaga	33055 Harper Ridge Road Woodsfield, OH 43793	
21	Tiree Land, LLC	Yes	50.000%	23.338	11.669	1.513%	100.000%	1.513%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007012.0000	Malaga	204 2nd Street NE New Philadelphia, OH 44663 Attn: John A. Gartrell	
21	Resource Minerals Headwater I, LP	Yes	50.000%		11.669	1.513%	100.000%	1.513%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007012.0000	Malaga	11412 Bee Cave Road Suite 301 Austin, TX 78738 Attn: Robert Rieck	
22	Terry Stephen	Yes	33.333%	0.192	0.064	0.008%	100.000%	0.008%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007011.0000	Malaga	33626 Harper Ridge Road Woodsfield, OH 43793	
22	Sandra McCormick	Yes	33.333%		0.064	0.008%	100.000%	0.008%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007011.0000	Malaga	33620 Harper Road Woodsfield, OH 43793 c/o: Sara Stephen	
22	Todd Stephen	Yes	33.333%		0.064	0.008%	100.000%	0.008%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007011.0000	Malaga	33620 Harper Road Woodsfield, OH 43793 c/o: Sara Stephen	
23	Sunrise Exploration & Production, LLC	yes	50.000%	3.057	1.529	0.198%	100.000%	0.198%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007013.0000	Malaga	4626 St. Charles Avenue New Orleans, LA 70115 Attn: Brandt Temple	
23	LL&B Headwater II, LP	Yes	50.000%		1.529	0.198%	100.000%	0.198%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007013.0000	Malaga	11412 Bee Cave Road Suite 301 Austin, TX 78738 Attn: Robert Rieck	
24	Ann L. Block	Yes	100.000%	39.474	39.474	5.117%	100.000%	5.117%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007001.0000	Malaga	36501 County Road 2 East Woodsfield, OH 43793	
25	Dallas & Renny S. Stephen	Yes	100.000%	53.730	53.730	6.965%	100.000%	6.965%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-007010.0000	Malaga	33941 Walter Ridge Road Woodsfield, OH 43793	
26a	Otto G., Jr. & Luella M. Burkhardt	Yes	100.000%	29.773	29.773	3.859%	100.000%	3.859%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-006006.0000	Malaga	33588 Walter Ridge Road Woodsfield, OH 43793	
26b	Otto G., Jr. & Luella M. Burkhardt	Yes	100.000%	0.182	0.182	0.024%	96.350%	0.023%	0.000%	0.000%	2.100%	0.0005%	1.550%	0.0004%	0.000%	0.000%	0.000%	0.000%	12-006006.0000	Malaga	33588 Walter Ridge Road Woodsfield, OH 43793	
27	Dallas & Renny S. Stephen	Yes	100.000%	24.788	24.788	3.213%	100.000%	3.213%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-006001.0000	Malaga	33941 Walter Ridge Road Woodsfield, OH 43793	
28	Iva K. Robb	Yes	100.000%	1.577	1.577	0.204%	100.000%	0.204%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-006015.0000	Malaga	242 West South Street Barnesville, OH 43713	
29	Carl F. Rousenberg	Yes	100.000%	0.419	0.419	0.054%	100.000%	0.054%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-006024.0000	Malaga	36829 Township Highway 2067 Jerusalem, OH 43747	
29	Carl F. Rousenberg	Yes	100.000%		0.000	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-006024.0000	Malaga	36829 Township Highway 2067 Jerusalem, OH 43747
30	Carl F. Rousenberg	Yes	100.000%	0.434	0.434	0.056%	100.000%	0.056%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-006005.0000	Malaga	36829 Township Highway 2067 Jerusalem, OH 43747	
30	Carl F. Rousenberg	Yes	100.000%		0.000	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	12-006005.0000	Malaga	36829 Township Highway 2067 Jerusalem, OH 43747
				771.445	771.445	100.000%		99.999%	0.000%		0.0005%		0.0004%		0.000%							
												100.000%										

Exhibit A-3
 Unleased Mineral Owners

Tract	Current Mineral Owner	Leased/Fee Yes or No	Current Mineral Owner Interest in Tract	Total Acres in Unit	Current Mineral Owner Acres in Unit	Tract Participation	Antero Working Interest	Antero Unit Participation	XTO Energy, Inc. Working Interest	XTO Energy, Inc. Unit Participation	Adventura USA, Inc. Working Interest	Adventura USA, Inc. Unit Participation	Cal Group Joint Venture Working Interest	Cal Group Joint Venture Unit Participation	Unleased Working Interest	Unleased Unit Participation	Parcel ID	Township	Current Mineral Owner Address
No Unleased Mineral Owners																			

Exhibit A-4
Outstanding Working Interest

Tract	Current Mineral Owner	Leased/Fee Yes or No	Current Mineral Owner Interest in Tract	Total Acres in Unit	Current Mineral Owner Acres in Unit	Tract Participation	Antero Working Interest	Antero Unit Participation	XTO Energy, Inc. Working Interest	XTO Energy, Inc. Unit Participation	Adventura USA, Inc. Working Interest	Adventura USA, Inc. Unit Participation	Cal Group Joint Venture Working Interest	Cal Group Joint Venture Unit Participation	Unleased Working Interest	Unleased Unit Participation	Parcel ID	Township	Current Mineral Owner Address
26b	Otto G., Jr. & Luella M. Burkhart	Yes	100.000%	0.182	0.182	0.024%	96.350%	0.023%	0.000%	0.000%	2.100%	0.0005%	1.550%	0.0004%	0.000%	0.000%	12-006006.0000	Malaga	33588 Walter Ridge Road Woodsfield, OH 43793
				0.182	0.182	0.024%		0.023%	0.000%		0.0005%		0.0004%		0.000%				

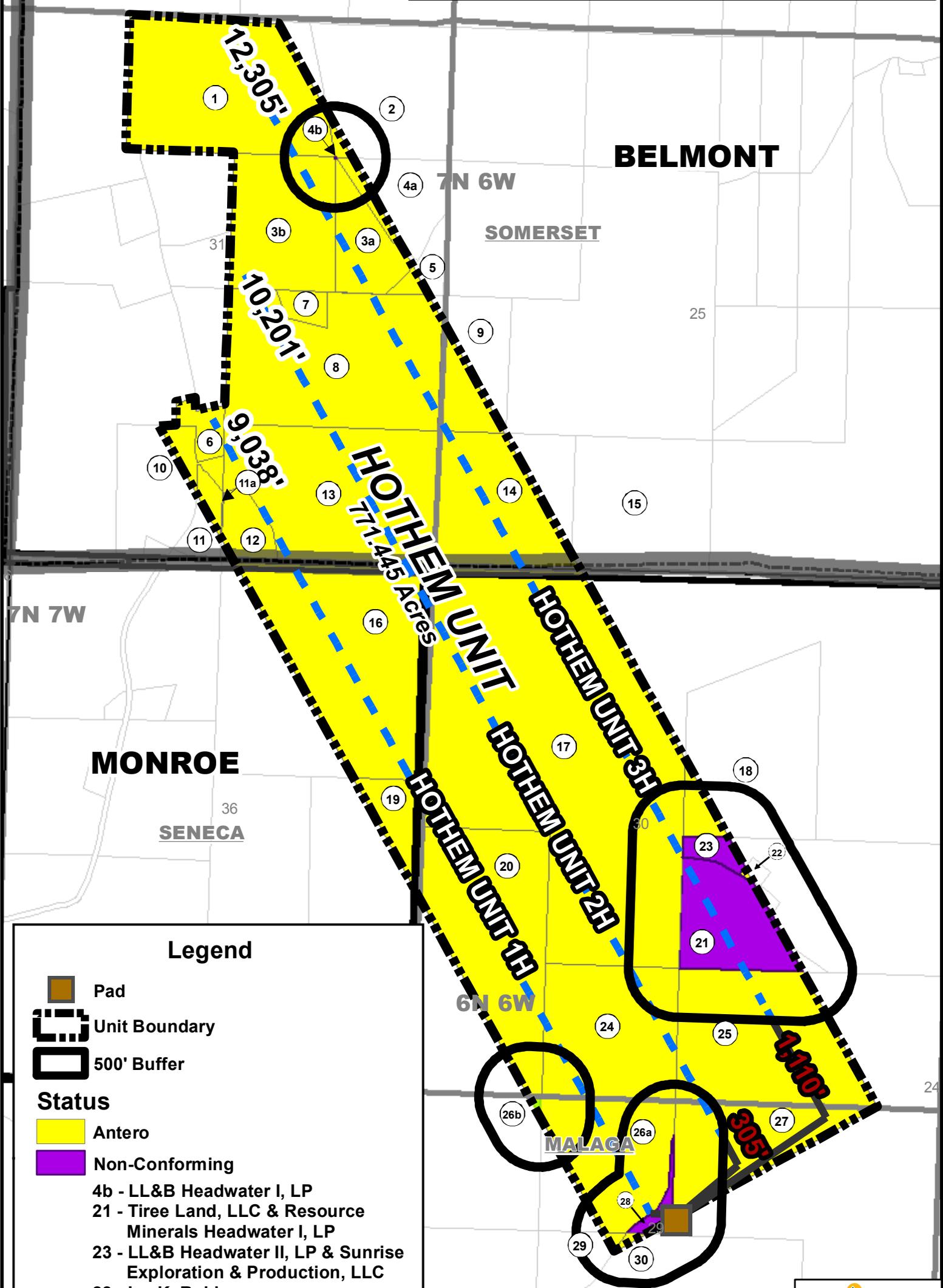
0.024%

Hothem Unit
771.445 Acres

Hothem Unit 1H lateral length with order 9,038'
 lateral length without order 0'
 Hothem Unit 2H lateral length with order 10,201'
 lateral length without order 305'
 Hothem Unit 3H lateral length with order 12,305'
 lateral length without order 1,110'

BEAVER
 8 7W

Exhibit 3 Unit
 Map



Legend

- Pad
- Unit Boundary
- 500' Buffer

Status

- Antero
- Non-Conforming
- Working Interest Owners

- 4b - LL&B Headwater I, LP
- 21 - Tiree Land, LLC & Resource Minerals Headwater I, LP
- 23 - LL&B Headwater II, LP & Sunrise Exploration & Production, LLC
- 28 - Iva K. Robb
- 26b - Adventura USA & Cal Group Joint Ventures

Appalachian Basin

Hothem Unit
 Somerset, Seneca & Malaga Townships
 Belmont & Monroe Counties, OH

0 150 300 600 900 1,200 Feet

10/19/2016

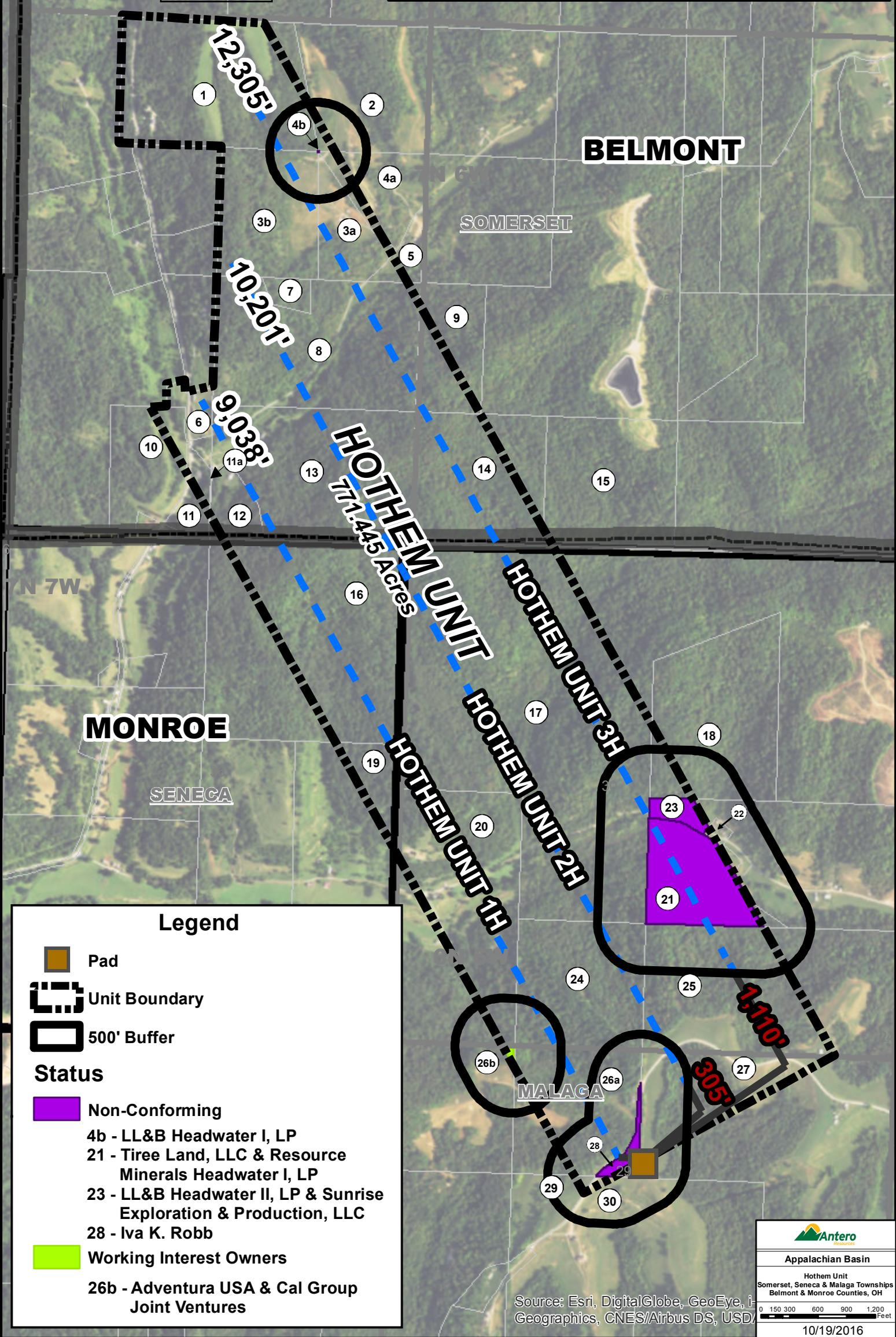
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Hothem Unit
771.445 Acres

Hothem Unit 1H lateral length with order 9,038'
lateral length without order 0'
Hothem Unit 2H lateral length with order 10,201'
lateral length without order 305'
Hothem Unit 3H lateral length with order 12,305'
lateral length without order 1,110'

BEAVER
 BN 7W

Exhibit 4
 Aerial Map



Legend

-  Pad
-  Unit Boundary
-  500' Buffer

Status

-  Non-Conforming
 - 4b - LL&B Headwater I, LP
 - 21 - Tیره Land, LLC & Resource Minerals Headwater I, LP
 - 23 - LL&B Headwater II, LP & Sunrise Exploration & Production, LLC
 - 28 - Iva K. Robb
-  Working Interest Owners
 - 26b - Adventura USA & Cal Group Joint Ventures


Appalachian Basin
 Hothem Unit
 Somerset, Seneca & Malaga Townships
 Belmont & Monroe Counties, OH

Source: Esri, DigitalGlobe, GeoEye, iGeographics, CNES/Airbus DS, USD

0 150 300 600 900 1,200 Feet

10/19/2016

Exhibit 7

**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of Antero Resources Corporation for Unit Operation :
: Application Date: September 13, 2016
: Supplement Date: October 19, 2016
Hothem Unit :

AFFIDAVIT OF NON-CONFORMING LEASE AND NON-CONSENTING WORKING INTEREST EFFORTS

I, Jordan P. Brandenburg, being first duly cautioned and sworn, do hereby depose and state as follows:

1. My name is Jordan P. Brandenburg and I am a Senior Landman with Antero Resources Corporation (the "Applicant"). My day-to-day responsibilities include managing field land brokers, negotiating lease acquisitions, and handling title matters for the Applicant's operations in the Utica Shale.
2. As a result of my job responsibilities, I have personal knowledge of the matters set forth in this affidavit, including the attachment hereto, and the following information is true to the best of Affiant's knowledge and belief.
3. Tracts 4b, 21, 23, and 28 either lack a mechanism to voluntarily consolidate the leased premises within the proposed Hothem Unit or contain a provision granting pooling of the leased premises, but is limited to a certain acreage size that will not conform with the proposed 771.445 acres contained within the Hothem Unit (a "Non-Conforming Lease").
4. The Applicant has made diligent efforts to obtain a lease modification of all Non-Conforming Leases that would permit the Applicant to voluntarily consolidate the Non-Conforming Leases into the Hothem Unit. Those efforts are documented in the attached chart and include making in-person visits, telephone calls, email correspondence and mail correspondence.
5. Tracts 26b is owned, in part, by outstanding working interest owners.
6. The Applicant has made a diligent effort to locate, acquire or negotiate mutually acceptable terms that would permit the Applicant to voluntarily include the outstanding working interest owned by the subject parties in Tract 26b in the Hothem Unit. These efforts are documented in the attached chart and include telephone calls and e-mail correspondence.

Further Affiant sayeth naught.

Dated this 19th day of October, 2016.



Jordan P. Brandenburg
Senior Landman
Antero Resources Corporation

STATE OF COLORADO)
) SS
COUNTY OF DENVER)

The foregoing instrument was sworn to before me, a Notary Public in and for the State of Colorado, and subscribed in my presence this 19th day of October, 2016, by Jordan P. Brandenburg, known to me or satisfactorily proven to be the Affiant in the foregoing instrument, who acknowledged the above statements to be true as Affiant verily believes.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires:

7/8/2020

Shelby Marie Johnson
Notary Public

Shelby Marie Johnson
Printed Name of Notary

(S E A L)



Tract	Owner	Parcel		Address
4b	LL&B Headwater I, LP (Non-Conforming Lease)	37-00647.002		11412 Bee Cave Road Suite 301 Austin, TX 78738 Attn: Robert Rieck
Date	Comments			
1/7/2016	Travis Spain, Turner Oil and Gas, drafted Amendment and sent to Jordan Brandenburg, Antero Resources Corporation, for negotiations with LL&B Headwater			
4/5/2016	Kathy Milenkovski, Steptoe & Johnson, sent a letter to LL&B urging them to contact Spencer Booth, Antero Resources Corporation, before the April 15, 2016 unitization application deadline.			
4/27/2016	Spencer Booth, Antero Resources Corporation, sent documents and terms to Robert Rieck, Attorney representing LL&B Headwater II, LP for review.			
4/29/2016	Spencer Booth, sent supplemental lease and parcel identification information e-mail to Robert Rieck.			
5/20/2016	Spencer Booth, sent e-mail to Robert Rieck requesting update to the proposal and documents submitted.			
5/24/2016	Robert Rieck, sent e-mail to Spencer Booth, informing Mr. Booth the offer presented by Antero is not gaining any traction with LL&B.			
5/24/2016	Spencer Booth, Antero Resources sent follow up e-mail to Robert Rieck, indicating Antero would not increase royalty as previously requested.			
6/1/2016	Robert Rieck, sent Spencer Booth e-mail, indicating the offer presented by Antero is not accepted by LL&B. Mr. Rieck indicated they would consider any counter offer from Antero.			
7/7/2016	Spencer Booth, Antero Resources Corporation, called Robert Rieck, LL&B, Mr. Booth discussed a plan with Mr. Rieck for Antero to submit new offer package for review.			
7/8/2016	Spencer Booth, Antero Resources sent e-mail to Robert Rieck containing a new offer package for review and consideration.			
9/6/2016	Spencer Booth and Robert Rieck have been in communication with each other over the last few days to potentially resolve the issues with this particular tract and others in the area. We remain hopeful this issue can be resolved, but at this time this issue remains outstanding.			
10/19/2016	At this time communications between Spencer Booth and Mr. Reick are still ongoing. We remain hopeful this issue can be resolved, but at this time the issue remains outstanding.			
21	Tiree Land, LLC (Non-Conforming Lease)	12-007012.0000		204 2nd Street NE New Philadelphia, OH 44663 Attn: John A. Gartrell
Date	Comments			

4/7/2016	Pre-Unitization letter sent by Steptoe-Johnson, at the request of Antero Resources. Letter sent in an attempt to promote mutually beneficial negotiations with each party.			
4/8/2016	Spencer Booth, Antero Resources spoke with Michael Kitchen, Tiree Land, about the previous letter sent and his proposal. Spencer Booth indicated Antero could not increase his royalty, however offered additional financial compensation per acre and would accept the proposed revisions to Anteros' royalty language. Tiree Land reject the offer presented by Spencer Booth and stated that unless Antero is willing to pay even higher financial compensation per acre and increase the royalty, they are not going to sign.			
9/6/2016	Spencer Booth left a voice message with Michael Kitchen today to confirm if Tiree's position has or has not changed since 4/8/16.			
10/19/2016	At this time communications between Spencer Booth and Mr. Reick are still ongoing. We remain hopeful this issue can be resolved, but at this time the issue remains outstanding.			
21	Resource Minerals Headwater I, LP (Non-Conforming Lease)	12-007012.0000		11412 Bee Cave Road Suite 301 Austin, TX 78738 Attn: Robert Rieck
Date	Comments			
4/27/2016	Spencer Booth, Antero Resources Corporation, sent documents and terms to Robert Rieck, Attorney representing Resource Minerals for review.			
4/29/2016	Spencer Booth, sent supplemental lease and parcel identification information e-mail to Robert Rieck.			
5/20/2016	Spencer Booth, sent e-mail to Robert Rieck requesting update to the proposal and documents submitted.			
5/24/2016	Robert Rieck, sent e-mail to Spencer Booth, informing Mr. Booth the offer presented by Antero is not gaining any traction with Resource Minerals.			
5/24/2016	Spencer Booth, Antero Resources sent follow up e-mail to Robert Rieck, indicating Antero would not increase royalty as previously requested.			
6/1/2016	Robert Rieck, sent Spencer Booth e-mail, indicating the offer presented by Antero is not accepted by Resource Minerals. Mr. Rieck indicated they would consider any counter offer from Antero.			
7/7/2016	Spencer Booth, Antero Resources Corporation, called Robert Rieck, Resource Minerals, Mr. Booth discussed a plan with Mr. Rieck for Antero to submit new offer package for review.			

7/8/2016	Spencer Booth, Antero Resources sent e-mail to Robert Rieck containing a new offer package for review and consideration.			
9/6/2016	Spencer Booth and Robert Rieck have been in communication with each other over the last few days to potentially resolve the issues with this particular tract and others in the area. We remain hopeful this issue can be resolved, but at this time this issue remains outstanding.			
10/19/2016	At this time communications between Spencer Booth and Mr. Reick are still ongoing. We remain hopeful this issue can be resolved, but at this time the issue remains outstanding.			
23	LL&B Headwater II, LP (Non-Conforming Lease)	12-007013.0000		11412 Bee Cave Road Suite 301 Austin, TX 78738 Attn: Robert Rieck
Date	Comments			
1/7/2016	Travis Spain, Turner Oil and Gas, drafted Amendment and sent to Jordan Brandenburg, Antero Resources Corporation, for negotiations with LL&B Headwater			
4/5/2016	Kathy Milenkovski, Steptoe & Johnson, sent a letter to LL&B urging them to contact Spencer Booth, Antero Resources Corporation, before the April 15, 2016 unitization application deadline.			
4/27/2016	Spencer Booth, Antero Resources Corporation, sent documents and terms to Robert Rieck, Attorney representing LL&B Headwater II, LP for review.			
4/29/2016	Spencer Booth, sent supplemental lease and parcel identification information e-mail to Robert Rieck.			
5/20/2016	Spencer Booth, sent e-mail to Robert Rieck requesting update to the proposal and documents submitted.			
5/24/2016	Robert Rieck, sent e-mail to Spencer Booth, informing Mr. Booth the offer presented by Antero is not gaining any traction with LL&B.			
5/24/2016	Spencer Booth, Antero Resources sent follow up e-mail to Robert Rieck, indicating Antero would not increase royalty as previously requested.			
6/1/2016	Robert Rieck, sent Spencer Booth e-mail, indicating the offer presented by Antero is not accepted by LL&B. Mr. Rieck indicated they would consider any counter offer from Antero.			
7/7/2016	Spencer Booth, Antero Resources Corporation, called Robert Rieck, LL&B, Mr. Booth discussed a plan with Mr. Rieck for Antero to submit new offer package for review.			
7/8/2016	Spencer Booth, Antero Resources sent e-mail to Robert Rieck containing a new offer package for review and consideration.			

9/6/2016	Spencer Booth and Robert Rieck have been in communication with each other over the last few days to potentially resolve the issues with this particular tract and others in the area. We remain hopeful this issue can be resolved, but at this time this issue remains outstanding.			
10/19/2016	At this time communications between Spencer Booth and Mr. Reick are still ongoing. We remain hopeful this issue can be resolved, but at this time the issue remains outstanding.			
23	Sunrise Exploration & Production, LLC (Non-Conforming Lease)	12-007013.0000		4626 St. Charles Avenue New Orleans, LA 70115 Attn: Brandt Temple
Date	Comments			
4/15/2016	Spencer Booth, Antero Resources sent e-mail to Brandt Temple containing the amendment and pooling modification documents.			
5/24/2016	Spencer Booth, Antero Resources, sent e-mail to Brandt Temple concerning amendment update or feedback on proposed offer.			
5/25/2016	Brandt Temple, sent counter offer to the proposal sent by Antero, requesting an increase in royalties to the leases and additional financial compensation.			
5/25/2016	Spencer Booth, sent e-mail in response to the royalty increase. Antero did not accept the royalty increase request. Spencer Booth responded in a good faith attempt to resolve this matter with, increased financial compensation, with a 2 term amendment with option to renew for additional two years for the same consideration, zero deductions for oil, and only deducting transportation costs for gas.			
6/15/2016	Brandt Temple, President, Sunrise Exploration & Production, sent counter offer e-mail to Spencer Booth, Antero Resources.			
6/21/2016	Spencer Booth, Antero Resources, replied to Mr. Temple's counter offer by e-mail, Mr. Booth informed Mr. Temple the terms in the counter offer cannot be accepted as written. Negotiation attempts will continue until mutually beneficial terms can be agreed upon and this matter resolved.			
8/29/2016	Spencer Booth, Antero Resources, Brandt Temple, Sunrise Exploration & Production, agreed to terms, John Nunez, Turner Oil & Gas, sent Spencer Booth updated documents for review.			
28	Iva K. Robb (Non-Conforming Lease)	12-006015.0000		242 West South Street Barnesville, OH 43713
Date	Comments			
5/4/2016	Rick Allen, Turner Oil & Gas, contacted Mrs. Iva K. Robb to discuss this issue. Mrs. Robb informed Mr. Allen she is represented by Jennifer Garrison and all correspondence should be directed to her.			
5/10/2016	Rick Allen, Turner Oil & Gas, contacted Jennifer Garrison, attorney for Iva K. Robb, Mrs. Garrison requested the required documents for review.			

6/7/2016	Rick Allen, Turner Oil & Gas, sent required documents to Jennifer Garrison, attorney representing Iva K. Robb for review.			
6/13/2016	Rick Allen, Turner Oil & Gas, sent follow up e-mail to Mrs. Garrison requesting an update to the document review process.			
6/20/2016	Jennifer Garrison, attorney for Ms. Robb, replied to the e-mail sent by Rick Allen and stated that Ms. Robb had no interest in signing the required documents.			
26b	Adventura, USA Inc. (Outstanding Working Interest)	12-006006.0000		Last known address: C/O Frank B. Starnes 1429 Larimer Square, Ste. 200 Denver, CO 80202
Date	Comments			
4/7/2016	Spencer Booth, Antero Resources, contacted Buckeye Oil representative Cheryl Becker by email to inquire about several outstanding interests in Leases obtained by Antero			
4/7/2016	Cheryl Becker, Buckeye Oil, sent several documents via email to Spencer Booth, Antero Resources, none of which addressed the issue at hand			
4/28/2016	Additional correspondence between Spencer Booth, Antero Resources and Cheryl Becker, Buckeye Oil, produced no significant results as to the whereabouts of the company nor their interest in the Lease(s)			
5/9/2016	Charles Lerma, Turner Oil & Gas sent assignment to Megan Eddleblute, Turner Oil & Gas, conduct additional abstracting in an attempt to locate any additional documents or information to locate an officer or contact for Adventura.			
5/11/2016	Spencer Booth Antero Resources Corporation, Travis Spain and John Nunez, Turner Oil and Gas, conducted extensive research in an attempt to locate Adventura USA, Inc. Last known location, Denver Colorado. Efforts to locate an agent or contact for this entity produced no results. Efforts will continue until located or additional information becomes available.			
5/25/2016	Travis Spain, Turner Oil & Gas, sent assignment to Lindsey Yeary, Turner Oil & Gas, conduct search for strangers in title that might help resolve this issue.			
6/12/2016	Travis Spain, Turner Oil & Gas, sent information to Juli Claussen, Geneology Services, to attempt to locate contact information for Adventura			
6/16/2016	Juli Claussen, Geneology Services, emailed Travis Spain, Turner Oil & Gas, and stated she has had no luck locating anyone associated with this company and requested any additional information available.			

6/16/2016	Travis Spain, Turner Oil & Gas, called Melody Prichard, Buckeye Energy Inc., to inquire if they had any correspondence in their files with a name, different address or any other information that would help us locate Adventura USA. She was able to find Frank B. Starnes listed on a letter within their records. No additional information was available.			
6/16/2016	Travis Spain, Turner Oil & Gas, sent information to Juli Claussen, Genealogy Services, to attempt to locate contact information for Frank B. Starnes			
7/28/2016	John Nunez, Turner Oil & Gas, sent Gail Starnes Hay, daughter of Frank B. Starnes an email introducing this issue and requesting confirmation Frank B. Starnes was in fact her father, and any help she might be able to provide on any associates of her father that might help us resolve this issue.			
7/28/2016	Gail Starnes Hay, daughter of the late Frank B. Starnes, e-mailed John Nunez, Turner Oil & Gas and informed him she would talk with her mother and see if they had any records or information which might help resolve this matter.			
8/9/2016	John Nunez, Turner Oil & Gas, sent follow up email to Gail Starnes Hay inquiring about the search for any records pertaining to her father.			
8/9/2016	Gail Starnes Hay responded to the email from John Nunez, Turner Oil & Gas. She informed Mr. Nunez she is still searching for any records pertaining to her father or Adventura USA., however has found no records pertaining to Adventura USA.			
26b	Cal Group Joint Venture (Outstanding Working Interest)	12-006006.0000		c/o M.D. McGown, General Partner 120, 7260 - 12th Street SE Calgary, AB T2H 2S5
Date	Comments			
4/20/2016	Travis Spain, Turner Oil & Gas, requested assistance from Spencer Booth, Antero Resources, in locating companies in Canada. Information received from Susan Zyba including additional trade names, incorporator and corporate status-James E. Clark as primary			
4/21/2016	Spencer Booth, Antero Resources, contacted Mr. James E. Clark at the number above to inquire about interest in Lease as Mr. Clark is listed as incorporatore of Cal Group. Mr. Clark was unsure whether interest was retained or sold back to Buckeye. Mr. Clark was CPA for the joint venture and which was controlled by many people. Names of additional companies were provided			
4/22/2016	Travis Spain, Turner Oil & Gas, had additional adversing performed in the title records to affirm that no entity provided by Mr. Clark assigned interest to Buckeye			

5/11/2016	Spencer Booth Antero Resources Corporation, Travis Spain, John Nunez, Turner Oil and Gas, conducted extensive research in an attempt to locate Cal Group Joint Venture. Last known location was Calgary Alberta Canada. Efforts to locate an agent or contact for this entity produced no results. Efforts will continue until located or additional information becomes available.
5/25/2016	Travis Spain, Turner Oil & Gas, sent assignment to Lindsey Yeary, Turner Oil & Gas, conduct search for strangers in title that might help resolve this issue.
6/10/2016	Travis Spain, Turner Oil & Gas, sent information to Juli Claussen, Geneology Services, to attempt to locate contact information for Cal Group
6/13/2016	Juli Claussen, Geneology Services, emailed Travis Spain, Turner Oil & Gas, with the name and contact information for a former General Partner of Cal Group, M.D. McGown.
6/13/2016	Travis Spain, Turner Oil and Gas, emailed M.D. McGown to inquire about Cal Group.
6/14/2016	Jennifer Bennett, Legal Assistant to Mr. McGown, emailed a response stating that Mr. McGown was out of town and would respond once he returned on 6/20/2016
6/28/2016	Rick Allen and Travis Spain, Turner Oil & Gas, called Mr. McGown to discuss Cal Group and the Assignment. Mr. McGown stated that he would have to contact additional parties to discuss but would accept an email with the documents. Documents were prepared and sent to Mr. McGown.
7/28/2016	John Nunez, Turner Oil & Gas, sent email to Mr. McGown, and to Jennifer Bennett, Legal Assistant to Mr. McGown, following up on previously submitted documents and to introduce himself as the new point of contact moving forward.
7/28/2016	M.D. McGown, former general partner of Cal Group Joint venture, sent email to John Nunez, Turner Oil & Gas, Mr. McGown informed Mr. Nunez he had no records pertaining to Cal Group any more and the group had not been in existence for a very long time. He also stated and there is nothing more he can help us with on this matter.

Exhibit 8

**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of Antero
Resources Corporation for Unit Operation :

Application Date: September 13, 2016
Supplement Date: October 19, 2016

Hothem Unit

LEASE AFFIDAVIT

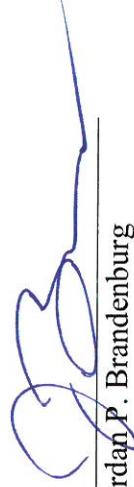
I, Jordan P. Brandenburg, being first duly cautioned and sworn, do hereby depose and state as follows:

1. My name is Jordan P. Brandenburg and I am a Senior Landman with Antero Resources Corporation (the "Applicant"). My day-to-day responsibilities include managing field land brokers, negotiating lease acquisitions, and handling title matters for the Applicant's operations in the Utica Shale.
2. As a result of my job responsibilities, I have personal knowledge of the matters set forth in this affidavit, including the attachment hereto, and the following information is true to the best of my knowledge and belief.
3. Pursuant to Ohio Revised Code § 1509.28, the Applicant has filed an application with the Chief of the Division of Oil and Gas Resources Management requesting an order authorizing Applicant to operate the Unitized Formation and applicable land area, identified as the Hothem Unit, according to the Unit Plan attached thereto (the "Application") (as those terms are used and defined therein). The Hothem Unit is located in Monroe and Belmont Counties, Ohio, and consists of thirty (30) separate tracts of land covering 771.445 acres.

4. To my knowledge the Applicant holds a valid lease agreement pertaining to all of the Applicant's acreage that is held under lease, as described in Exhibit A-2 of the Unit Operating Agreement attached to the Application.

Further sayeth Affiant naught.

Dated this 19th day of September, 2016.



Jordan P. Brandenburg
Senior Landman
Antero Resources Corporation

STATE OF COLORADO)
) SS
COUNTY OF DENVER)

The foregoing instrument was sworn to before me, a Notary Public in and for the State of Colorado, and subscribed in my presence this 19th day of October, 2016, by Jordan P. Brandenburg, known to me or satisfactorily proven to be the Affiant in the foregoing instrument, who acknowledged the above statements to be true as Affiant verily believes.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires:

7/8/2020

Shelby Marie Johnson
Notary Public

Shelby Marie Johnson
Printed Name of Notary

(S E A L)



Exhibit 9

**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of Antero Resources Corporation for Unit Operation :
: Application Date: September 13, 2016
: Supplement Date: October 19, 2016
:
:
Hothem Unit :

AFFIDAVIT OF OWNERSHIP

I, Jordan P. Brandenburg, being first duly cautioned and sworn, do hereby depose and state as follows:

1. Affiant, Jordan P. Brandenburg, is employed by Antero Resources Corporation (the “Applicant”) as a Senior Landman. Affiant’s job responsibilities include managing field land brokers, negotiating lease acquisitions, and handling title matters for the Applicant’s operations in the Utica Shale.
2. As a result of his job responsibilities, Affiant has personal knowledge of the matters set forth in this affidavit, and the following information is true to the best of Affiant’s knowledge and belief.
3. Pursuant to Ohio Revised Code §1509.28, the Applicant is filing herewith an application with the Chief of the Division of Oil and Gas Resources Management requesting an order authorizing the Applicant to operate the Unitized Formation and applicable land area, identified as the Hothem Unit, according to the Unit Plan attached thereto (the “Application”) (as those terms are used and defined therein). The Hothem Unit is located in Monroe and Belmont Counties, Ohio, and consists of thirty (30) separate tracts of land covering 771.445 acres.
4. As of the Application Date set forth above, the Applicant is the owner, as that term is defined in Ohio Revised Code §1509.01(K), of at least 65% of the land overlying the Unitized Formation that is the subject of the unitization request set forth in the Application.

Further Affiant sayeth naught.

Dated this 19th day of October, 2016.



Jordan P. Brandenburg
Senior Landman
Antero Resources Corporation

STATE OF COLORADO)
) SS
COUNTY OF DENVER)

The foregoing instrument was sworn to before me, a Notary Public in and for the State of Colorado, and subscribed in my presence this 19th day of October, 2016, by Jordan P. Brandenburg, known to me or satisfactorily proven to be the Affiant in the foregoing instrument, who acknowledged the above statements to be true as Affiant verily believes.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires:

7/8/2020

Shelby Marie Johnson
Notary Public

Shelby Marie Johnson
Printed Name of Notary

(S E A L)



**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of Antero :
Resources Corporation for Unit Operation :
 : Application Date: September 13, 2016
 : Supplement Date: October 19, 2016
Hothem Unit :

**PREPARED TESTIMONY OF JORDAN P. BRANDENBURG
ON BEHALF OF ANTERO RESOURCES CORPORATION**

Gregory D. Russell (0059718)
J. Taylor Airey (0081092)
Ilya Batikov (0087968)
VORYS, SATER, SEYMOUR AND PEASE LLP
52 East Gay Street
P. O. Box 1008
Columbus, Ohio 43216-1008

Attorneys for Applicant,
Antero Resources Corporation

PREPARED DIRECT TESTIMONY OF JORDAN P. BRANDENBURG

1 **INTRODUCTION.**

2 **Q1. Please introduce yourself to the Division.**

3 A1. My name is Jordan P. Brandenburg. I am a Senior Landman for Antero Resources
4 Corporation (Antero) and am based in its Denver, Colorado office.

5 **Q2. What is your educational background?**

6 A2. I received a Bachelor of Arts in Liberal Studies from Oklahoma State University in
7 2006.

8 **Q3. Would you briefly describe your professional experience?**

9 A3. I began my career in January 2007 as a landman for Chesapeake Energy Corpora-
10 tion in Oklahoma City, and I worked both shale and non-shale plays in Oklahoma,
11 Kansas and Arkansas. I first started working the Utica Shale in Ohio in 2012 while
12 employed with Gulfport Energy Corporation and I joined Antero Resources in June
13 2014.

14 **Q4. What do you do as a Senior Staff Landman for Antero?**

15 A4. As a landman I am responsible for managing field brokers, negotiating lease
16 acquisitions, and handling title matters for our operations in the Utica Shale. I have
17 also been responsible for overseeing our unitization efforts with regard to the Otto
18 Unit.

19 **Q5. Are you a member of any professional associations?**

20 A5. I am a member of the American Association of Professional Landmen and the
21 Denver Association of Petroleum Landmen.

22 **Q6. What is the purpose of your testimony today?**

23 A6. I am testifying in support of the *Application of Antero Resources Corporation for*
24 *Unit Operation* (the “Application”), with respect to the Hothem Unit, consisting of
25 thirty four (34) separate tracts of land totaling approximately 771 acres in Monroe
26 and Belmont Counties, Ohio. In particular, I will describe the efforts made by
27 Antero to put the Hothem Unit together and the Unit Plan that Antero is proposing.

28 **EFFORTS MADE BY ANTERO TO LEASE UNIT TRACTS.**

29 **Q7. The Application submitted by Antero indicates that it owns the oil and gas**
30 **rights to approximately 770 acres of the proposed Hothem Unit, right?**

1 A7. Yes. Antero now holds leases for approximately 770 acres, or 99.999% of the unit.
2 That's reflected on Exhibit A-2 to the Unit Operating Agreement.

3 **Q8. Would you describe how Antero acquired those rights?**

4 A8. Antero acquired those rights through a combination of acquiring leases from other
5 operators and acquiring leases from unleased landowners within the Hothem Unit.

6 **Q9. Are there other operators in the Hothem Unit?**

7 A9. No, XTO Energy, Inc. held the working interests in Tract 29 and 30, which
8 represent approximately 0.111% of the unit at the time the application was filed.
9 However, the leases XTO held have expired and Tract 29 and 30 are now subject to
10 a lease in which Antero owns 100% of the working interest. Therefore Antero's
11 interest in the Hothem Unit is now 99.99913889%. That's reflected on Exhibit A-2
12 and Exhibit A-4 of the Unit Operating Agreement.

13 **Q10. Are there other owners of working interests within the Hothem Unit?**

14 A10. Yes, there several individuals owning portions of the working interest of Tract 26b.
15 These interests amount to a total of approximately 0.0009% of the working interest
16 in the Hothem Unit and remain uncommitted. Antero controls the balance of the
17 working interest in Tract 26b. All of the uncommitted working interests are
18 reflected on Exhibit A-4 of the Unit Operating Agreement.

19 **Q11. Is there any unleased acreage in the Hothem Unit?**

20 A11. No, currently all tracts within the Hothem Unit are subject to oil and gas leases.

21 **Q12. Do all of the Antero leases conform to the proposed Hothem Unit?**

22 A12. No. There are several tracts in the Hothem Unit under lease – identified on Exhibit
23 A-5 of the Unit Operating Agreement – with leases containing non-conforming
24 pooling provisions and having an aggregate acreage of approximately 28 acres (the
25 “Non-Conforming Leases”). Those leases contain pooling provisions that allow the
26 lessee, i.e. Antero, to voluntarily consolidate the lease's acreage into units smaller
27 than the 771 acres required for Antero to voluntarily form the Hothem Unit or they
28 contain no pooling provision at all. These leases therefore, don't “conform” to the
29 Hothem Unit's proposed acreage if we try to voluntarily create the Hothem Unit,
30 and thus those tracts need to be statutorily unitized if we are to effectively and
31 efficiently develop the Hothem Unit. The interests of the Non-Conforming Leases

1 represent approximately 3.627% of the acreage within the Unit.

2 **Q13. Have you prepared an affidavit detailing Antero's efforts to obtain the**
3 **commitment of the uncommitted working interests and modifications of the**
4 **Non-Conforming Leases?**

5 A13. Yes, an affidavit of Non-Conforming Lease and Non-Consenting Working Interests
6 Efforts is attached to the Application as Attachment 2, Exhibit 7 detailing the
7 efforts of Antero to obtain voluntary agreements within the Hothem Unit.

8 **Q14. Do you have an exhibit in your testimony that shows the uncommitted**
9 **working interests and Non-Conforming Leases within the Hothem Unit?**

10 A14. The plat in Attachment 2 Exhibit 3 shows the uncommitted working interest in
11 green and the Non-Conforming Leases in purple.

12 **Q15. Do you have an aerial plat of the Hothem Unit?**

13 A15. Yes, I've attached one as Attachment 2, Exhibit 4.

14 **UNIT PLAN PROVISIONS.**

15 **Q16. Would you describe generally the development plan for the Hothem Unit?**

16 A16. Antero plans to develop the Hothem Unit from a single well pad, which is located
17 in the southern portion of the Hothem Unit, from which we intend to drill three
18 horizontal wells. The three laterals are projected to be approximately 9,038',
19 10,201', and 12,305' in length, respectively, as shown on Attachment 2, Exhibit 3.

20 **Q17. Does Antero have a specific timeline for drilling the wells in the Hothem Unit?**

21 A17. Antero intends to spud the 1H well of the Hothem Unit in November of 2017
22 followed immediately by the 2H and 3H wells.

23 **Q18. Does Antero have any other development activity in the immediate area?**

24 A18. Yes, Antero has planned development in the area of the Hothem Unit which is
25 demonstrated on Attachment 2, Exhibit 6.

26 **Q19. Are you familiar with the Unit Plan proposed by Antero for the Hothem Unit?**

27 A19. Yes. The Unit Plan proposed by Antero is attached to the Application and consists
28 of an initial document that establishes the non-operating relationship between the
29 parties in the unit, and an operating agreement and related exhibits that establish
30 how the unit is going to be explored, developed and produced.

31 **Q20. Turning first to the body of the Unit Plan, marked as Attachment 1 to the**

1 **Application. Would you describe briefly what it does?**

2 A20. Yes. The general intent of the Unit Plan is to effectively combine the oil and gas
3 rights and interests in the Hothem Unit in a uniform manner so that they can be
4 developed as though each of the tracts were covered by a single lease.

5 **Q21. Are all of the oil and gas rights in the proposed unit combined?**

6 A21. No. The Unit Plan only unitizes the oil and gas rights in and related to the Unitized
7 Formation.

8 **Q22. How would production from the Hothem Unit be allocated?**

9 A22. On a surface-acreage basis. Under Article 4 of the Unit Plan, every tract is assigned
10 a tract participation percentage based on surface acreage, as shown on Exhibit A-2
11 to the Unit Operating Agreement. Article 5 of the Unit Plan allocates production
12 based on that tract participation.

13 **Q23. Would you go through an example from Exhibit A-2 to the Unit Operating**
14 **Agreement to illustrate what you mean?**

15 A23. Yes. If you look at Tract 1, parcel number 37-00584.000, on Exhibit A-2 to the
16 Unit Operating Agreement, you will see that it has 55.450 acres lying within the
17 boundary limits of the Hothem Unit, which is a 771.445 acre production unit.
18 Under the Unit Plan, Tract 1 would therefore be allocated 7.188% of the production
19 from the Hothem Unit.

20 **Q24. Is this the way production would be allocated to the tracts covered by the Non-**
21 **Conforming Leases?**

22 A24. Yes.

23 **Q25. In your experience, is this an unusual way to allocate production in a unit?**

24 A25. No, this is the customary method for allocating production in a unit.

25 **Q26. How are unit expenses allocated?**

26 A26. Like production in the unit, generally on a surface-acreage basis. Article 3 of the
27 Unit Plan provides that expenses, unless otherwise allocated in the Unit Operating
28 Agreement, will be allocated to each tract of land within the unit in the proportion
29 that the surface acres of each tract bears to the surface acres of the entire unit.

30 **Q27. Who pays the unit expenses?**

31 A27. According to the terms of the proposed Unit Plan, the working interest owners.

- 1 **Q28. Do the royalty owners pay any part of the unit expenses?**
- 2 A28. No, unless the terms and conditions of the royalty owner's oil and gas lease dictate
3 otherwise.
- 4 **Q29. Let's turn to the Unit Operating Agreement. It appears to be based upon**
5 **A.A.P.L. Form 610 – Model Form Operating Agreement, is that correct?**
- 6 A29. Yes. We typically use a modified version of the 1989. The Form 610, together
7 with its exhibits, is a commonly used form in the industry and is frequently
8 modified to fit the needs of the parties and circumstances.
- 9 **Q30. Would it be fair to say, then, that you are familiar with the custom and usage**
10 **of the Form 610 and other similar agreements in the industry?**
- 11 A30. Yes.
- 12 **Q31. Turning to the Unit Operating Agreement in particular, does it address how**
13 **unit expenses are determined and paid?**
- 14 A31. Yes. Article III of the Unit Operating Agreement provides that all costs and
15 liabilities incurred in operations shall be borne and paid proportionately by the
16 working interest owners, according to their Unit Participation percentages. Those
17 percentages can be found in Exhibit A-2 to the Unit Operating Agreement.
18 Moreover, the Unit Operating Agreement has attached to it an accounting
19 procedure identified as Exhibit C that offers greater details regarding how unit
20 expenses are determined and paid.
- 21 **Q32. That's commonly referred to as the COPAS?**
- 22 A32. Yes, it stands for the Council of Petroleum Accountants Societies, Inc. and is a
23 commonly used form in the industry.
- 24 **Q33. Based upon your education and professional experience, do you view the terms**
25 **of Exhibit C as reasonable?**
- 26 A33. Yes. The terms as presented in Exhibit C are commonly accepted amongst
27 operators and clearly set forth definitions, processes, timelines, etc., so that all
28 parties can fully understand and agree as to those costs and accounting procedures
29 associated with the activity of drilling and producing oil and natural gas wells and
30 units.
- 31 **Q34. Will there be in-kind contributions made by owners in the unit area for unit**

1 **operations, such as contributions of equipment?**

2 A34. No.

3 **Q35. Are there times when a working interest owner in the unit chooses not to – or**
4 **cannot – pay their allocated share of the unit expenses?**

5 A35. Yes, such a situation is not uncommon in the industry. The agreements allow
6 working interest owners the flexibility to decline to participate in an operation that
7 they either cannot afford or believe is not likely to be profitable. The remaining
8 parties can then proceed at their own risk and expense.

9 **Q36. Generally, how is the working interest accounted for when an owner chooses**
10 **not to participate in an operation?**

11 A36. A working interest owner who cannot or choose not to participate in an operation is
12 considered a non-consenting party. If the remaining working interest owners
13 decide to proceed with the operation, the consenting parties bear the full cost and
14 expense of the operations. A non-consenting party is deemed to have relinquished
15 its interest in that operation until the well revenues pay out the costs that would
16 have been attributed to that party, plus a prescribed risk penalty or non-consent
17 penalty.

18 **Q37. Can a working interest owner choose to go non-consent in the initial well in**
19 **the Hothem Unit?**

20 A37. Under the terms of Article VI of the Unit Operating Agreement a party can choose
21 not to participate in the unit's initial well. Article VI provides that such a party
22 shall be deemed to have relinquished its working interest to the other parties in the
23 unit, with a back-in provision and risk factor of 500%.

24 **Q38. Does the Unit Operating Agreement treat the initial well and subsequent**
25 **operations differently in terms of going non-consent?**

26 A38. The initial well and subsequent operations are both subject to a back-provision and
27 risk factor of 500%.

28 **Q39. Where are the risk factors for subsequent operations set out in the Unit**
29 **Operating Agreement?**

30 A39. They are set out in Article VI.B of the Unit Operating Agreement.

31 **Q40. Are the percentages included in the Unit Operating Agreement unusual?**

1 A40. No, not for joint operating agreements used in horizontal drilling programs.
2 Because of the significant costs associated with drilling horizontally in the Utica /
3 Point Pleasant (see Attachment 2 Exhibit 5 showing an estimate of the cost to
4 develop the unit of over \$31,000,000) and because the Utica / Point Pleasant is an
5 unconventional play, it is common for companies to incorporate into their joint
6 operating agreements a risk factor that is proportionate to the substantial financial
7 commitment, and these percentages are sometimes higher than those contained in
8 the Unit Operating Agreement.

9 **Q41. But if a working interest owner still has a royalty interest in the unit, that**
10 **royalty interest would remain in place and be paid?**

11 A41. Yes. That royalty interest would still be paid.

12 **Q42. How are decisions made regarding unit operations?**

13 A42. Article V of the Unit Operating Agreement designates Antero as the Unit Operator,
14 with full operational authority for the supervision and conduct of operations in the
15 unit.

16 **Q43. I believe you've already described generally the documents in Exhibits A and**
17 **C to the Unit Operating Agreement. Let's turn therefore to Exhibit B of the**
18 **Unit Operating Agreement. What is it?**

19 A43. Exhibit B is a standard oil and gas lease form that is attached to the joint operating
20 agreement to govern any unleased interests owned by the parties. Article III.A of
21 the Unit Operating Agreement provides that if any party owns or acquires an oil
22 and gas interest in the Contract Area, then that interest shall be treated for all
23 purposes of the Unit Operating Agreement as if it were covered by the form of
24 lease attached as Exhibit "B."

25 **Q44. Does this oil and gas lease contain standard provisions that Antero uses in**
26 **connection with its operations in Ohio?**

27 A44. Yes.

28 **Q45. Moving on to Exhibit D of the Unit Operating Agreement, would you describe**
29 **what it is?**

30 A45. Yes, Exhibit D is the insurance exhibit to the joint operating agreement. It sets
31 forth coverage amounts and limitations, and the insurance terms for operations

1 conducted under the Unit Operating Agreement.

2 **Q46. Would you next describe to the Division Exhibit E of the Unit Operating**
3 **Agreement?**

4 A46. Yes. Exhibit E is the Gas Balancing Agreement, which further details the rights
5 and obligations of the parties with respect to marketing and selling any production
6 from the Contract Area.

7 **Q47. In your professional opinion, given your education and experience, are the**
8 **terms of the Unit Plan, including the terms of the exhibits just discussed, just**
9 **and reasonable?**

10 A47. Yes.

11 **Q48. Does this conclude your testimony?**

12 A48. Yes.