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Charles T. Akers, Jr.
Manager – Utica Land
EnerVest Operating, LLC
300 Capitol Street, Suite 200
Charleston, West Virginia 25301
Tel. (304) 343-5505
Email: cakers@enervest.net

II. PROJECT DESCRIPTION

The Delmar South Unit is located in Carroll County, Ohio, and consists of two hundred and thirty six (236) separate tracts of land. See Exhibits A-1 and A-2 of the Unit Operating Agreement (showing the plat and tract participations, respectively). The total land area in the Delmar South Unit is approximately 243.519194 acres and, at the time of this Application, Chesapeake and EnerVest have the right to drill on and produce from 237.825110 acres¹ of the proposed unit – i.e., more than ninety-seven percent (97%) of the unit area, above the sixty-five percent (65%) threshold required by Ohio Revised Code § 1509.28.² As more specifically described herein, Chesapeake seeks authority to drill and complete one horizontal well in the Unitized Formation from a single well pad located near the unit’s northern boundary to efficiently test, develop, and operate the Unitized Formation for oil, natural gas, and related liquids production.

Chesapeake’s plan for unit operations (the “Unit Plan”) is attached to this Application and consists of the Unit Agreement, attached as Exhibit 1; and the Unit Operating Agreement, attached as Exhibit 2. Among other things, the Unit Plan allocates unit production and expenses based upon each tract’s surface acreage participation in the unit; includes a carry provision for those unit participants unable to meet their financial obligations, the amount of which is based upon the risks of and costs related to the project; and conforms to industry standards for the drilling and operating of horizontal wells generally used by the Applicant with other interest owners.

III. TESTIMONY

The following pre-filed testimony has been attached to the Application supporting the Delmar South Unit’s formation: (i) testimony from a Geologist establishing that the Unitized Formation is part of a pool and supporting the Unit Plan’s recommended allocation of unit pro-

¹ Chesapeake Exploration, LLC, as Operator, is authorized to file this application on behalf of TOTAL E&P USA, Inc. and CHK Utica, LLC as other working interest owners in this acreage.

² See Prepared Direct Testimony of Eric Hensley at 2-3, attached as Exhibit 5.

duction and expenses on a surface acreage basis;³ (ii) testimony from a Reservoir Engineer establishing that unitization is reasonably necessary to increase substantially the recovery of oil and gas, and that the value of the estimated additional resource recovery from unit operations exceeds its additional costs;⁴ and (iii) testimony from an operational Landman with firsthand knowledge of Chesapeake's Ohio development who describes the project generally, the Unit Plan, efforts to lease unleased owners, and the approvals received for unit development.^{5,6}

IV.
THE CHIEF SHOULD GRANT AN ORDER FOR THIS APPLICATION

A. Legal Standard

Ohio Revised Code § 1509.28 requires the Chief of the Division to issue an order providing for the unit operation of a pool – or a part thereof – when the applicant shows that it is reasonably necessary to increase substantially the ultimate recovery of oil and gas, and the value of the estimated additional resource recovery from the unit's operations exceeds its additional costs. See Ohio Rev. Code § 1509.28(A).

The Chief's order must be on terms and conditions that are just and reasonable and prescribe a plan for unit operations. See Ohio Rev. Code § 1509.28(A). Chesapeake proposes the following conditions for its operation of the Delmar South Unit that will satisfy the statutory requirements set forth below:

(1) A description of the unit area.

See the above section on "PROJECT DESCRIPTION."

(2) A statement of the nature of the contemplated operations.

Chesapeake anticipates drilling one (1) well from a centralized pad location in the Delmar South Unit for the purpose of recovering oil and gas. Drilling operations in the Unit will commence within twelve (12) months from the date of approval of the Division's Unitization Order.⁷

(3) An allocation of production from the unit area not used in unit operations, or otherwise lost, to the separately owned tracts.

Chesapeake's geology testimony illustrates that the Utica/Point Pleasant Formation uniformly underlies the Unit Area.⁸ Therefore, the value of each separate tract in the Unit Area shall be determined by calculating the ratio of its surface acreage to the total surface acreage of the Unit Area; this is known as "Unit Participation". The allocated share of production to each separate tract shall be equal to its Unit Participation.

³ See Prepared Direct Testimony of Travis Glauser, attached as Exhibit 3.

⁴ See Prepared Direct Testimony of Andrew Hopson, attached as Exhibit 4.

⁵ See Prepared Direct Testimony of Eric Hensley, attached as Exhibit 5.

⁶ Each of the witnesses is an employee of Chesapeake Energy Corporation, testifying on behalf of the Applicant, its wholly-owned subsidiary, Chesapeake Exploration, L.L.C., which operates Chesapeake's Ohio wells.

⁷ Exhibit 5 at 4.

⁸ Exhibit 3 at 2-3.

(4) A provision addressing credits and charges to be made for the investment in wells, tanks, pumps, and other equipment contributed to unit operations by owners in the unit.

Owners in the Unit Area are responsible for their pro rata share of these credits and charges based upon their total Unit Participation within the Unit Area.

(5) A provision addressing how unit operation expenses shall be determined and charged to the separately owned tracts in the unit, and how they will be paid.

Expenses related to unit operations shall be charged to owners on a pro rata basis based upon their Unit Participation. These charges shall be just and reasonable.

(6) A provision, if necessary, for carrying someone unable to meet their financial obligations in connection with the unit.

Chesapeake will carry, or otherwise finance, an owner who is unable to meet its financial obligations in connection with unit operations. Chesapeake shall comply with the Unit Agreement and Unit Operating Agreement included in the subject unitization application should enactment of this provision become necessary.

(7) A provision for the supervision and conduct of unit operations in which each person has a vote with a value corresponding to the percentage of unit operations expenses chargeable against that person's interest.

Chesapeake, or its successors in interest, shall supervise and conduct all unit operations. Each working interest owner in the Unit Area shall have a voting interest equal to its Unit Participation. If the operator owns fifty-one percent (51%) or more of the Unit Area, unit operations shall not require an affirmative vote of all working interest owners. Otherwise, no unit operation shall be approved without an affirmative vote of at least fifty-one percent (51%) of the combined voting interest of the working interest owners.

(8) The time when operations shall commence and the manner in which, and circumstances under which, unit operations will terminate.

Unit operations may commence as of 7:00 a.m. on the day following the effective date of the Order, when and if one is issued by the Division, and may continue as long as oil and/or gas are produced. Working interest owners comprising at least fifty-one percent (51%) of the working interest owners in the Unit Area may terminate unit operations whenever they determine unit operations are no longer warranted. If unit operations are so terminated, Chesapeake shall provide written notice of the termination to the Division and to all unitized non-consenting working interest owners, as further defined in 9(b)(ii). In the event that termination of unit operations occurs prior to drilling and completing for production three (3) wells in the Delmar South Unit, the Chief may issue an order reducing the Unit Area to the minimum amount of acreage necessary to support those wells that have been drilled and are producing.

(9) Such other provisions appropriate for engaging in unit operation and for the protection or adjustment of correlative rights.

Chesapeake proposes the following as additional provisions:

(a) No activity associated with the drilling, completion, or operation of the Delmar South Unit shall be conducted on the surface of any unleased property without prior written consent of the landowner.

(b) If an Order is granted, Chesapeake shall present Unitized parties with the option to:

(i) lease their minerals to Chesapeake for a fifteen percent (15%) royalty rate on production, and a lease bonus payment of two thousand seven hundred fifty dollars (\$2,750) per net mineral acre. This lease option shall be for a non-surface use lease, meaning that Chesapeake shall not use the

surface of the mineral owner's property without separate prior written consent by the mineral owner; or

(ii) participate in unit operations as a non-consenting working interest owner. The mineral owner shall receive a monthly cash payment equal to a one-eighth (1/8) landowner royalty interest calculated on gross revenues. The one-eighth (1/8) royalty interest shall be calculated based on the Unit Participation of the mineral owner's tract. Chesapeake shall make the royalty payment contemporaneously with those it makes to leased individuals within the Unit Area. In addition to the royalty payment, the non-consenting working interest owner shall have a working interest ownership in the well equal to seven-eighths (7/8) of the Unit Participation of his/her tract. This seven-eighths of his/her Unit Participation shall accrue based upon net production revenue until Chesapeake recovers 200% of the cost of drilling, testing, completing, and producing the initial well. Once Chesapeake recovers 200% of these costs, Chesapeake shall begin making monthly payments on net production revenue for that well equal to eight-eighths (8/8) of the non-consenting working interest owner's Unit Participation, thereby negating any future royalty interest in the well for the non-consenting working interest owner. For any subsequent wells drilled in the Unit Area, seven-eighths (7/8) of the non-consenting working interest owner's Unit Participation shall accrue until Chesapeake has recovered 150% of the cost of drilling, testing, completing, and producing the subsequent wells. Once Chesapeake recovers 150% of these costs, Chesapeake shall begin making monthly payments on net production revenue for the subsequent wells equal to eight-eighths (8/8) of the non-consenting working interest owner's Unit Participation, thereby negating any future royalty interest in the well for the non-consenting working interest owner. Once a specific cost is charged to a well, that same cost cannot be charged to the subsequent wells in the Unit Area.

(iii) Chesapeake shall present these options via certified mail. Should the Unitized Party not make an affirmative selection as to one of the two options, the Unitized Party will be deemed to have selected option 9(b)(i) to lease their tract under the terms of the lease form attached as Exhibit "B" to Exhibit 2 of this Application.

(c) Unitized parties shall not incur liability for any personal or property damage associated with any drilling, testing, completing, producing, operating, or plugging activities within the Delmar South Unit.

(d) If requested by an unleased mineral owner selecting option 9(b)(ii) above, or by the Division, Chesapeake shall provide, not later than thirty (30) days after receipt of the request, any of the following:

(i) A statement for the preceding month, covering all wells then in production within the Unit Area, depicting all costs incurred, together with the quantity of oil and gas produced, and the amount of proceeds realized from the sale of production during said preceding month; and

(ii) Any authorization for expenditure (AFE) prepared by Chesapeake; and

(iii) A statement of all costs and expenses for purposes of above Paragraph 9(b)(ii).

(10) The Order will become effective when Chesapeake provides the Chief with final written approval of the unit operations from sixty-five percent (65%) of the working interest owners in the Unit Area, and sixty-five percent (65%) of the royalty interest owners in the Unit Area. Upon receipt of these approvals, the Order shall become effective, and unit operations may commence as set forth above. Chesapeake will have six (6) months to provide these required approvals, and, if it does not do so, the Order

will be deemed revoked, and the Chief shall provide notice of the revocation to Chesapeake and the unleased mineral interest owners in the Unit Area.

(11) Within twenty-one (21) days of the Order becoming effective, Chesapeake will file a copy of the Order with the Carroll County Recorder's Office.

(12) Chesapeake requests that its Unit Agreement and Unit Operating Agreement are adopted by the Order. In the event of a conflict between the Plan for Unit Operations approved by the Chief and contained in the Order, and Chesapeake's Unit Agreement and Unit Operating Agreement, the Order shall take precedence and the Unit Agreement and Unit Operating Agreement shall conform to the Order.

B. Chesapeake's Application Meets the Legal Standard

i. *The Unitized Formation is Part of a Pool*

The "Unitized Formation" consists of the subsurface portion of the Unit Area (i.e., the lands shown on Exhibit A-1 and identified in Exhibit A-2 to the Unit Operating Agreement) at a depth located from fifty feet above the top of the Utica Shale to fifty feet below the base of the Point Pleasant formation, and frequently referred to as the Utica/Point Pleasant formation. The evidence presented in this Application establishes that the Unitized Formation is part of a pool and thus an appropriate subject of unit operation under Ohio Rev. Code § 1509.28.⁹ Additionally, that evidence establishes that the Unitized Formation is likely to be reasonably uniformly distributed throughout the Unit Area – and thus that it is reasonable for the Unit Plan to allocate unit production and expenses to separately owned tracts on a surface acreage basis.¹⁰

ii. *Unit Operations Are Reasonably Necessary to Increase Substantially the Ultimate Recovery of Oil and Gas*

The evidence presented in this Application establishes that unit operations are reasonably necessary to increase substantially the ultimate recovery of oil and gas from the lands making up the Delmar South Unit. The Unit Plan contemplates the potential drilling of one (1) horizontal well from a single well pad, with a lateral in length of approximately 7,473 feet, and with the potential for additional unit wells in the event they are necessary to fully recover the resource.¹¹ Chesapeake estimates the total amount of recoverable gas in place ("GIP") through the planned unit development is approximately 5.46 billion cubic feet ("BCFE") of natural gas from the Unitized Formation, of which 0.0 (zero) BCFE would be currently developable when considering regulatory setbacks.¹² Absent unit development contemplated in the unitized project, the recoverable GIP is substantially less: First, the evidence shows that it is unlikely that vertical devel-

⁹ A "pool" is defined under Ohio law as "an underground reservoir containing a common accumulation of oil or gas, or both, but does not include a gas storage reservoir." Ohio Rev. Code § 1509.01(E). See also Exhibit 3 at 2-3.

¹⁰ Exhibit 3 at 4-5.

¹¹ See, e.g., Exhibit 5 at 4-5.

¹² Exhibit 4 at 4. We emphasize that these are only estimates, and like the rest of the estimates set forth in this Application, they should be treated as simply estimates based upon the best information available at the time.

opment of the unit would ever take place because it is likely to be uneconomic – resulting in potentially no resource recovery from portions of the Unitized Formation.¹³ Second, avoiding unleased tracts by relying on shorter horizontal laterals to develop the Unitized Formation underlying the Delmar South Unit would result in a substantially lower ultimate recovery of oil and gas, as it would strand 5.46 BCFE of GIP, unlikely to ever be developed.¹⁴ Oil and gas recovery from horizontal drilling methods is directly related to the length of the lateral. Chesapeake estimates the GIP will increase by approximately 100%, from 0.0 (zero) BCFE to 5.46 BCFE if the unit is developed utilizing the proposed unit development as opposed to a shortened lateral approach.¹⁵

The evidence thus shows that the contemplated unit operations are reasonably necessary to increase substantially the recovery of oil and gas from the Unitized Formation.¹⁶

iii. *The Value of Additional Recovery Exceeds Its Additional Costs*

Capital expenditure (“CAPEX”) to develop the unitized project (\$8.40 mm) increases by \$8.40 mm (approximately 100%) over CAPEX to develop the non-unitized project (\$0.0 mm).¹⁷ As set forth in Mr. Hopson’s testimony, by using the current price of \$4.236 per thousand cubic feet of natural gas, Chesapeake estimates that the value of the additional GIP in the unitized project, when compared to the GIP in the non-unitized project, increases by approximately 100%, from \$0.0 (zero) mm to \$20.98 mm; an increase of \$20.98 mm in potential value.¹⁸ In order for the value of the additional resources recovered to exceed additional operational costs, a recovery factor of only 28% is required.¹⁹ As expressed in Mr. Hopson’s testimony, it is realistic to expect a recovery factor range from 30% to 70% in this area.²⁰ Thus, the evidence establishes that the value of the estimated additional recovery is expected to exceed the estimated additional costs incident to conducting unit operations.

¹³ *Id.* at 3-4.

¹⁴ *Id.* at 6.

¹⁵ *Id.* at 5.

¹⁶ There are also substantial benefits in the form of reduced surface impacts as a result of the contemplated unit operations. For example, the use of a single, centrally-located well pad to drill six horizontal wells causes significantly less surface disruption than a vertical well drilling program designed to recover the same resource volumes. See, e.g., Exhibit 5 at 5-6 (both on-site and traffic-related surface impacts, for example).

¹⁷ *Id.* at 4.

¹⁸ Exhibit 4 at 4-6.

¹⁹ *Id.* at 4.

²⁰ *Id.* at 5.

iv. *The Unit Plan Meets the Requirements of Ohio Revised Code § 1509.28*

The Unit Plan proposed by Chesapeake meets the requirements set forth in Ohio Revised Code § 1509.28. The unit area is described in the Unit Agreement at Article 1, as well as on Exhibits A-1 and A-2 to the Unit Operating Agreement. The nature of the contemplated unit operations can be found generally in the Unit Agreement at Article 3, with greater specificity throughout the Unit Agreement and Unit Operating Agreement.²¹ Unit production and unit expenses are allocated on a surface acreage basis as set forth in the Unit Agreement at Articles 3 through 5 (generally), except where otherwise allocated by the Unit Operating Agreement.²² Payment of unit expenses is addressed generally in Article 3 of the Unit Agreement.²³ No provision for credits and charges related to contributions made by owners in the unit area regarding wells, tanks, pumps and other equipment for unit operations are addressed in the Unit Operating Agreement because none are contemplated.²⁴ The Unit Plan provides for various carries in the event a participant is unable to meet its financial obligations related to the unit – see, e.g., Article VI of the Unit Operating Agreement.²⁵ Voting provisions related to the supervision and conduct of unit operations are set forth in Article XVI of the Unit Operating Agreement, with each person having a vote that has a value corresponding to the percentage of unit expenses chargeable against that person's interest.²⁶ Commencement and termination of operations are addressed in Articles 11 and 12 of the Unit Agreement.

V.
APPROVALS

As of the filing of this Application, the Unit Plan has been agreed to or approved by approximately ninety-seven percent (97%) of Working Interest Owners. See Exhibits 6. This working interest owner approval exceeds the statutory minimum requirements set forth in Ohio Revised Code § 1509.28(B) for the Chief's order, if issued, to become effective.

VI.
HEARING

Ohio Revised Code § 1509.28 requires the Chief to hold a hearing to consider this Application, when requested by sixty-five percent (65%) of the owners of the land area underlying the proposed unit. Ohio Rev. Code § 1509.28(A). That threshold level is met here. See Note 2

²¹ See also, e.g., Exhibit 5 at 6-14.

²² Id. at 6-8.

²³ Id. at 8.

²⁴ Id. at 9-10.

²⁵ Id. at 10-12.

²⁶ Id. at 12.

above. Accordingly, Chesapeake respectfully requests that the Division schedule a hearing at an available hearing room located at the Division's Columbus complex on or before April 30, 2015, to consider the Application filed herein.

VII.
CONCLUSION

Ohio Revised Code § 1509.28 requires the Chief of the Division to issue an order for the unit operation of a pool – or a part thereof – if it is reasonably necessary to increase substantially the recovery of oil and gas, and the value of the estimated additional recovery from the unit's operations exceeds its additional costs. Chesapeake respectfully submits that the Application meets this standard, and that the terms and conditions of the Unit Plan are just and reasonable and satisfy the requirements of Ohio Revised Code § 1509.28(B). Chesapeake therefore asks the Chief to issue an order authorizing Chesapeake to operate the Delmar South Unit according to the Unit Plan attached hereto.

Respectfully submitted,

/s/ *Kathy Milenkovski*

R. Neal Pierce (0028379)
Katerina E. Milenkovski (0063314)
STEPTOE & JOHNSON PLLC
Huntington Center
41 South High Street, Suite 2200
Columbus, Ohio 43215

Attorneys for Applicant,
Chesapeake Exploration, L.L.C.

Exhibit "A-1"

Chesapeake Operating
Delmar South Unit
Carroll County
243.519194 Acres



ID	TMP ID	ID	TMP ID	ID	TMP ID	ID	TMP ID
1	25000034000	64	250000389000	123	250000971000	183	250001062000
2	250000035000	65	250000390000	124	250000972000	184	250001063000
3	250000046000	66	250000403000	125	250000973000	185	250001064000
4	250000058000	67	250000425000	126	250000974000	186	250001065000
5	250000069000	68	250000440000	127	250000993000	187	250001066000
6	250000070000	69	250000461000	128	250001000000	188	250001067000
7	250000076000	70	250000473000	129	250001001000	189	250001068000
8	250000077000	71	250000478000	130	250001002000	190	250001081000
9	250000089000	72	250000479000	131	250001003000	191	250001082000
10	250000090000	73	250000538000	132	250001004000	192	250001083000
11	250000099000	74	250000578000	133	250001005000	192	250001083000
12	250000100000	75	250000579000	134	250001006000	193	250001084000
13	250000101000	76	250000580000	135	250001007000	194	250001085000
14	250000102000	77	250000581000	136	250001008000	195	250001086000
15	250000103000	78	250000582000	137	250001009000	196	250001087000
16	250000104000	79	250000627000	138	250001010000	197	250001103000
17	250000110000	80	250000628000	139	250001010001	198	250001104000
18	250000111000	81	250000645000	140	250001011000	199	250001117000
19	250000112000	82	250000646000	141	250001012000	200	250001118000
20	250000113000	83	250000647000	142	250001013000	201	250001155000
21	250000114000	84	250000648000	143	250001014000	202	250001187000
22	250000115000	85	250000649000	144	250001015000	203	250001206000
23	250000116000	86	250000702000	145	250001016000	204	250001208000
24	250000117000	87	250000703000	146	250001019000	205	250001209000
25	250000118000	88	250000716000	147	250001020000	206	250001210000
26	250000125000	88	250000716000	148	250001021000	207	250001227000
27	250000137000	89	250000717000	149	250001022000	208	250001248000
28	250000138000	89	250000717000	150	250001023000	209	250001267000
29	250000139000	90	250000718000	150	250001023000	210	250001268000
30	250000150000	91	250000719000	150	250001023000	211	250001269000
31	250000151000	92	250000732000	151	250001024000	212	250001270000
31	250000151000	93	250000757000	152	250001025000	213	250001271000
32	250000161000	94	250000761000	153	250001026000	214	250001272000
33	250000164000	95	250000777000	154	250001027000	215	250001273000
34	250000165000	95	250000777000	154	250001027000	215	250001273000
35	250000166000	96	250000802000	155	250001028000	215	250001273000
36	250000222000	97	250000803000	155	250001028000	215	250001273000
37	250000223000	98	250000804000	156	250001029000	216	250001281000
38	250000259000	99	250000805000	157	250001030000	217	250001284000
39	250000255000	100	250000807000	158	250001031000	218	250001290000
40	250000258000	101	250000827000	159	250001032000	219	250001291000
41	250000259000	102	250000828000	160	250001033000	220	250001292000
42	250000260000	103	250000830000	161	250001034000	221	250001309000
43	250000302000	104	250000831000	162	250001035000	222	250001311000
44	250000303000	105	250000836000	163	250001036000	223	250001312000
45	250000308000	106	250000869000	164	250001037000	224	250001313000
46	250000309000	106	250000869000	165	250001038000	225	250001339000
47	250000310000	107	250000875000	166	250001039000	226	250001343000
48	250000311000	108	250000876000	167	250001040000	227	250001359000
49	250000312000	109	250000879000	168	250001041000	228	250001360000
50	250000313000	110	250000894000	169	250001042000	229	250001369000
51	250000314000	111	250000915000	170	250001048000	230	250002185000
52	250000315000	112	250000916000	171	250001049000	231	250002186000
53	250000324000	112	250000916000	172	250001050000	232	250002192000
54	250000325000	113	250000919000	173	250001051000	233	250025MMWCD
55	250000335000	114	250000920000	174	250001052000	233	250025MMWCD
56	250000336000	115	250000931000	175	250001053000	234	280000325002
57	250000339000	116	250000932000	176	250001054000	234	280000325002
58	250000340000	117	250000933000	177	250001055000	234	280000325002
59	250000341000	118	250000934000	178	250001056000	234	280000325002
60	250000352000	119	250000952000	179	250001057000	235	280060005000
61	250000371000	120	250000953000	180	250001058000		
62	250000387000	121	250000954000	181	250001059000		
63	250000388000	122	250000965001	182	250001060000		

Unit Area - 243.519194 AC



CONTRACT AREA

Delmar South
Orange Township
Carroll Co., OH

1 inch = 800 feet



Projection: NAD 1983 StatePlane Ohio North FIPS 3401 Feet
Path: X:\GIS_Management\Northern_Division\Appalachia_South\Mapa\ExhibitA\EDelmar_CCR-181\Delmar_South_J04.mxd

Exhibit "A-2"

Leases Within the Contract Area

Attached to and made a part of that certain Unit Operating Agreement dated December 16, 2014 as approved by the Ohio Department of Natural Resources for the Delmar South Unit.

TRACT NUMBER	CHK LEASE ID NUMBER	LESSOR	LEASED YES/NO	SURFACE ACRES IN UNIT	TRACT PARTICIPATION	TAX MAP PARCEL ID NUMBERS	TOWNSHIP	COUNTY	STATE	UNIT WORKING INTEREST	CHESAPEAKE WORKING INTEREST	CHESAPEAKE UNIT PARTICIPATION	EV WORKING INTEREST	EV UNIT PARTICIPATION	ADDRESS	CITY	STATE	ZIP CODE
1	34-031290-000	GARY T. WOLFE AND TAMMY M.	YES	0.2469806	0.0010143	25000034000	ORANGE	CARROLL	OH	0.10143%	100.00000%	0.10143%			2141 McGinty Road NW	North Canton	OH	44720
2	34-031290-000	GARY T. WOLFE AND TAMMY M.	YES	0.25921637	0.0010645	25000035000	ORANGE	CARROLL	OH	0.10645%	100.00000%	0.10645%			2141 McGinty Road NW	North Canton	OH	44720
3	34-0002088-000	EDWARD B BARKER JR AND KATHY	YES	0.30160032	0.0012385	250000046000	ORANGE	CARROLL	OH	0.12385%	100.00000%	0.12385%			5104 Arrow Road NW	Minerva	OH	44657
4	34-0000454-000	RUSSELL R. BROWN AND TAUNIE	YES	0.17582837	0.0007220	250000058000	ORANGE	CARROLL	OH	0.07220%	100.00000%	0.07220%			7676 Lakeview Drive	Carrollton	OH	44615
5	34-037524-000	RICHIENA J. COPEL, A WIDOW	YES	0.34868987	0.0014319	250000069000	ORANGE	CARROLL	OH	0.14319%	100.00000%	0.14319%			P.O. Box 674	Lakemore	OH	44250
6	34-037524-000	RICHIENA J. COPEL, A WIDOW	YES	0.94770210	0.0038917	250000070000	ORANGE	CARROLL	OH	0.38917%	100.00000%	0.38917%			P.O. Box 674	Lakemore	OH	44250
7	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.07881487	0.0003236	250000076000	ORANGE	CARROLL	OH	0.03236%	100.00000%	0.03236%			7282 Autumn Road SW	Carrollton	OH	44615
8	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.14700790	0.0006037	250000077000	ORANGE	CARROLL	OH	0.06037%	100.00000%	0.06037%			7282 Autumn Road SW	Carrollton	OH	44615
9	34-037878-000	JAMES E. BUTLER AND DOROTHY A.	YES	0.25697701	0.0010553	250000089000	ORANGE	CARROLL	OH	0.10553%	100.00000%	0.10553%			8343 Seemann Dr SW	Carrollton	OH	44615
10	34-0001389-000	SUNNY KAREN GAY ZENGLER	YES	0.28430145	0.0011675	250000090000	ORANGE	CARROLL	OH	0.11675%	100.00000%	0.11675%			3004 SummerTree Drive	Sebring	FL	33872
11	34-037878-000	JAMES E. BUTLER AND DOROTHY A.	YES	5.61673850	0.0230649	250000099000	ORANGE	CARROLL	OH	2.30649%	100.00000%	2.30649%			8343 Seemann Dr SW	Carrollton	OH	44615
12		PETE D HUHN AND JANICE A HUHN	NO	0.260889	0.001071	250000100000	ORANGE	CARROLL	OH	0.10713%					PO Box 141	Minerva	OH	44657
13		PETE D HUHN AND JANICE A HUHN	NO	0.234404	0.000963	250000101000	ORANGE	CARROLL	OH	0.09626%					PO Box 141	Minerva	OH	44657
14		PETE D HUHN AND JANICE A HUHN	NO	0.243814	0.001001	250000102000	ORANGE	CARROLL	OH	0.10012%					PO Box 141	Minerva	OH	44657
15		PETE D HUHN AND JANICE A HUHN	NO	0.243806	0.001001	250000103000	ORANGE	CARROLL	OH	0.10012%					PO Box 141	Minerva	OH	44657
16		PETE D HUHN AND JANICE A HUHN	NO	0.228605	0.000939	250000104000	ORANGE	CARROLL	OH	0.09388%					PO Box 141	Minerva	OH	44657
17	34-0001316-000	KENNETH W MARTSOFF AND SANDRA L	YES	0.33210706	0.0013638	250000110000	ORANGE	CARROLL	OH	0.13638%	100.00000%	0.13638%			1421 Centerbury Drive	Celina	OH	45822
18	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.44067269	0.0018096	250000111000	ORANGE	CARROLL	OH	0.18096%	100.00000%	0.18096%			7282 Autumn Road SW	Carrollton	OH	44615
19	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.07463802	0.0003065	250000112000	ORANGE	CARROLL	OH	0.03065%	100.00000%	0.03065%			7282 Autumn Road SW	Carrollton	OH	44615
20	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.10204147	0.0004190	250000113000	ORANGE	CARROLL	OH	0.04190%	100.00000%	0.04190%			7282 Autumn Road SW	Carrollton	OH	44615
21	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.01815390	0.0000745	250000114000	ORANGE	CARROLL	OH	0.00745%	100.00000%	0.00745%			7282 Autumn Road SW	Carrollton	OH	44615
22	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.31569105	0.0012964	250000115000	ORANGE	CARROLL	OH	0.12964%	100.00000%	0.12964%			7282 Autumn Road SW	Carrollton	OH	44615
23	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.18655728	0.0007661	250000116000	ORANGE	CARROLL	OH	0.07661%	100.00000%	0.07661%			7282 Autumn Road SW	Carrollton	OH	44615
24	34-031586-000	JOHN OSTER AND CHRISTINE OSTER	YES	0.30203780	0.0012403	250000117000	ORANGE	CARROLL	OH	0.12403%	100.00000%	0.12403%			1516 Dunkeith Drive	Canton	OH	44708
25	34-031586-000	JOHN OSTER AND CHRISTINE OSTER	YES	0.29713133	0.0012202	250000118000	ORANGE	CARROLL	OH	0.12202%	100.00000%	0.12202%			1516 Dunkeith Drive	Canton	OH	44708
26	34-0001301-000	DENISE D GANDER	YES	0.45912546	0.0018854	250000125000	ORANGE	CARROLL	OH	0.18854%	100.00000%	0.18854%			668 Dalton Fox Lake Road	Dalton	OH	44618
27	34-037878-000	JAMES E. BUTLER AND DOROTHY A.	YES	0.22387095	0.0009193	250000137000	ORANGE	CARROLL	OH	0.09193%	100.00000%	0.09193%			8343 Seeman Dr SW	Carrollton	OH	44615
28	34-037878-000	JAMES E. BUTLER AND DOROTHY A.	YES	0.21517671	0.0008836	250000138000	ORANGE	CARROLL	OH	0.08836%	100.00000%	0.08836%			8343 Seeman Dr SW	Carrollton	OH	44615
29	34-037878-000	JAMES E. BUTLER AND DOROTHY A.	YES	0.26064547	0.0010703	250000139000	ORANGE	CARROLL	OH	0.10703%	100.00000%	0.10703%			8343 Seeman Dr SW	Carrollton	OH	44615
30		INGRID H KELLEY	NO	0.283296	0.001163	250000150000	ORANGE	CARROLL	OH	0.11633%					902 Belemade Street	Arlington	TX	76014
31	34-0002290-000	JONATHAN D LLOYD	YES	0.27787327	0.0011411	250000151000	ORANGE	CARROLL	OH	0.11411%					4818 2nd Street NW	Canton	OH	44708
32	34-037978-000	CHADWICK FAMILY REV LIV TRUST	YES	0.27252980	0.0011191	250000161000	ORANGE	CARROLL	OH	0.11191%	100.00000%	0.11191%			4103 Bellwood Drive NW	Canton	OH	44708
33	34-024880-000	JOHN E. OSTER	YES	0.34671338	0.0014238	250000164000	ORANGE	CARROLL	OH	0.14238%	100.00000%	0.14238%			1516 Dunkeith Drive	Canton	OH	44708
34	34-024880-000	JOHN E. OSTER	YES	0.29514933	0.0012120	250000165000	ORANGE	CARROLL	OH	0.12120%	100.00000%	0.12120%			1516 Dunkeith Drive	Canton	OH	44708
35	34-024880-000	JOHN E. OSTER	YES	0.30301744	0.0012443	250000166000	ORANGE	CARROLL	OH	0.12443%	100.00000%	0.12443%			1516 Dunkeith Drive	Canton	OH	44708
36	34-036604-000	DAVID SAMS, A WIDOWER	YES	0.37483842	0.0015393	250000222000	ORANGE	CARROLL	OH	0.15393%	100.00000%	0.15393%			425 Market Street NE	Navarre	OH	44662
37	34-036604-000	DAVID SAMS, A WIDOWER	YES	0.23948495	0.0009834	250000223000	ORANGE	CARROLL	OH	0.09834%	100.00000%	0.09834%			425 Market Street NE	Navarre	OH	44662
38	34-038034-000	LLOYD P. DORSCHUK FAMILY	YES	0.07917354	0.0003251	250000254000	ORANGE	CARROLL	OH	0.03251%	100.00000%	0.03251%			289 Stratavon Road NW	North Canton	OH	44720
39	34-038034-000	LLOYD P. DORSCHUK FAMILY	YES	0.14378325	0.0005904	250000255000	ORANGE	CARROLL	OH	0.05904%	100.00000%	0.05904%			289 Stratavon Road NW	North Canton	OH	44720
40		DIORDJE DRNDARSKI	NO	0.334506	0.001374	250000258000	ORANGE	CARROLL	OH	0.13736%					1821 Riverford Road	Tustin	CA	92780
41		DIORDJE DRNDARSKI	NO	0.375494	0.001542	250000259000	ORANGE	CARROLL	OH	0.15419%					1821 Riverford Road	Tustin	CA	92780
42	34-019029-000	DWIGHT L. VAN MEETER, A WIDOWER	YES	0.53319896	0.0021896	250000260000	ORANGE	CARROLL	OH	0.21896%	100.00000%	0.21896%			3261 Seeman Drive	Carrollton	OH	44615
43	34-030627-000	RICHARD A. BUHTE AND EVA M.	YES	0.06284068	0.0002581	250000302000	ORANGE	CARROLL	OH	0.02581%	100.00000%	0.02581%			7828 Tower Road	Medina	OH	44256
44	34-030627-000	RICHARD A. BUHTE AND EVA M.	YES	0.01279797	0.0000526	250000303000	ORANGE	CARROLL	OH	0.00526%	100.00000%	0.00526%			7828 Tower Road	Medina	OH	44256
45	34-030627-000	RICHARD A. BUHTE AND EVA M.	YES	0.06007369	0.0002467	250000308000	ORANGE	CARROLL	OH	0.02467%	100.00000%	0.02467%			7828 Tower Road	Medina	OH	44256
46	34-038772-000	EDWARD J. RICHARDSON AND ANN	YES	0.10623877	0.0004363	250000309000	ORANGE	CARROLL	OH	0.04363%	100.00000%	0.04363%			8506 St Peters Church Road NW	Bolivar	OH	44612
47	34-038772-000	EDWARD J. RICHARDSON AND ANN	YES	0.13085344	0.0005373	250000310000	ORANGE	CARROLL	OH	0.05373%	100.00000%	0.05373%			8506 St Peters Church Road NW	Bolivar	OH	44612
48	34-030627-000	RICHARD A. BUHTE AND EVA M.	YES	0.13487031	0.0005538	250000311000	ORANGE	CARROLL	OH	0.05538%	100.00000%	0.05538%			7828 Tower Road	Medina	OH	44256
49	34-030627-000	RICHARD A. BUHTE AND EVA M.	YES	0.15158173	0.0006225	250000312000	ORANGE	CARROLL	OH	0.06225%	100.00000%	0.06225%			7828 Tower Road	Medina	OH	44256
50	34-030627-000	RICHARD A. BUHTE AND EVA M.	YES	0.14432534	0.0005927	250000313000	ORANGE	CARROLL	OH	0.05927%	100.00000%	0.05927%			7828 Tower Road	Medina	OH	44256
51	34-030627-000	RICHARD A. BUHTE AND EVA M.	YES	0.11176687	0.0004590	250000314000	ORANGE	CARROLL	OH	0.04590%	100.00000%	0.04590%			7828 Tower Road	Medina	OH	44256

TRACT NUMBER	CHK LEASE ID NUMBER	LESSOR	LEASED YES/NO	SURFACE ACRES IN UNIT	TRACT PARTICIPATION	TAX MAP PARCEL ID NUMBERS	TOWNSHIP	COUNTY	STATE	UNIT WORKING INTEREST	CHESAPEAKE WORKING INTEREST	CHESAPEAKE UNIT PARTICIPATION	EV WORKING INTEREST	EV UNIT PARTICIPATION	ADDRESS	CITY	STATE	ZIP CODE
52	34-030627-000	RICHARD A. BUHTE AND EVA M.	YES	0.09403078	0.0003861	250000315000	ORANGE	CARROLL	OH	0.03861%	100.00000%	0.03861%			7828 Tower Road	Medina	OH	44256
53	34-024084-000	WAYNE M. SIGMAN AND TAMMY R.	YES	1.13788016	0.0046727	250000324000	ORANGE	CARROLL	OH	0.46727%	100.00000%	0.46727%			4003 Bower Road	Rootstown	OH	44272
54	34-0001389-000	SUNNY KAREN GAY ZENGLER	YES	0.31013576	0.0012736	250000325000	ORANGE	CARROLL	OH	0.12736%	100.00000%	0.12736%			3004 Summertree Drive	Sebring	FL	33872
55	34-003493-000	BOBBY L. HULL, A SINGLE PERSON	YES	0.39512332	0.0016226	250000335000	ORANGE	CARROLL	OH	0.16226%	100.00000%	0.16226%			5251 Norco Road	Carrollton	OH	44615
56	34-003493-000	BOBBY L. HULL, A SINGLE PERSON	YES	0.48347084	0.0019854	250000336000	ORANGE	CARROLL	OH	0.19854%	100.00000%	0.19854%			5251 Norco Road	Carrollton	OH	44615
57	34-0002554-000	TIMOTHY S AND KATHY L FITZGERALD	YES	0.87184112	0.0035802	250000339000	ORANGE	CARROLL	OH	0.35802%	100.00000%	0.35802%			115 Frigate Drive	Holden Beach	NC	28462
58	34-0002554-000	TIMOTHY S AND KATHY L FITZGERALD	YES	0.37765305	0.0015508	250000340000	ORANGE	CARROLL	OH	0.15508%	100.00000%	0.15508%			115 Frigate Drive	Holden Beach	NC	28462
59	34-0002554-000	TIMOTHY S AND KATHY L FITZGERALD	YES	0.41056313	0.0016860	250000341000	ORANGE	CARROLL	OH	0.16860%	100.00000%	0.16860%			115 Frigate Drive	Holden Beach	NC	28462
60	34-0002197-000	EDGAR J FLAGG AND SUSAN KAY FLAGG	YES	0.00036740	0.0000015	250000352000	ORANGE	CARROLL	OH	0.00015%	100.00000%	0.00015%			PO Box 53	Waynesburg	OH	44615
61	34-003493-000	BOBBY L. HULL, A SINGLE PERSON	YES	0.12974169	0.0005328	250000371000	ORANGE	CARROLL	OH	0.05328%	100.00000%	0.05328%			5251 Norco Road	Carrollton	OH	44615
62	34-037834-000	PATRICK M. O'BRIEN	YES	0.08216264	0.0003374	250000387000	ORANGE	CARROLL	OH	0.03374%	100.00000%	0.03374%			5056 Wedgewood Road	Medina	OH	44256
63	34-037834-000	PATRICK M. O'BRIEN	YES	0.03378235	0.0001387	250000388000	ORANGE	CARROLL	OH	0.01387%	100.00000%	0.01387%			5056 Wedgewood Road	Medina	OH	44256
64	34-037418-000	MICHAEL C. PATTERSON	YES	0.35727325	0.0014671	250000389000	ORANGE	CARROLL	OH	0.14671%	100.00000%	0.14671%			8064 Pinaok Drive SW	Carrollton	OH	44615
65	34-037418-000	MICHAEL C. PATTERSON	YES	0.35176580	0.0014445	250000390000	ORANGE	CARROLL	OH	0.14445%	100.00000%	0.14445%			8064 Pinaok Drive SW	Carrollton	OH	44615
66	34-037902-000	TODD A SAMSA AND JACQUELYN S S	YES	0.24525852	0.0010071	250000403000	ORANGE	CARROLL	OH	0.10071%	100.00000%	0.10071%			333 Abundant Ave	Angier	NC	27501
67	34-024084-000	WAYNE M. SIGMAN AND TAMMY R.	YES	0.39156867	0.0016080	250000425000	ORANGE	CARROLL	OH	0.16080%	100.00000%	0.16080%			4003 Bower Road	Rootstown	OH	44272
68	34-036034-000	JOHN M. SHOCKEY AND DARLENE S.	YES	0.37401142	0.0015359	250000440000	ORANGE	CARROLL	OH	0.15359%	100.00000%	0.15359%			3296 Seeman Drive SW	Carrollton	OH	44615
69	34-037272-000	DONALD E. WEIGAND, SR.	YES	0.24500435	0.0010061	250000461000	ORANGE	CARROLL	OH	0.10061%	100.00000%	0.10061%			8365 Seeman Drive SW	Carrollton	OH	44615
70	34-036821-000	ERIN L. WALKER	YES	0.44096813	0.0018108	250000473000	ORANGE	CARROLL	OH	0.18108%	100.00000%	0.18108%			7305 Autumn Road SW	Carrollton	OH	44615
71	34-036821-000	ERIN L. WALKER	YES	0.38134402	0.0015660	250000478000	ORANGE	CARROLL	OH	0.15660%	100.00000%	0.15660%			7305 Autumn Road SW	Carrollton	OH	44615
72	34-036821-000	ERIN L. WALKER	YES	0.33068905	0.0013580	250000479000	ORANGE	CARROLL	OH	0.13580%	100.00000%	0.13580%			7305 Autumn Road SW	Carrollton	OH	44615
73	34-007200-000	JAY HARDMAN	YES	0.14843165	0.0006095	250000538000	ORANGE	CARROLL	OH	0.06095%	100.00000%	0.06095%			4895 East Willock Road	Pittsburgh	PA	15227
74	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.15134763	0.0006215	250000578000	ORANGE	CARROLL	OH	0.06215%	100.00000%	0.06215%			7282 Autumn Road SW	Carrollton	OH	44615
75	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.14262038	0.0005857	250000579000	ORANGE	CARROLL	OH	0.05857%	100.00000%	0.05857%			7282 Autumn Road SW	Carrollton	OH	44615
76	34-0002198-000	FRANK J AND MELISSA M HOWARD	YES	0.12109061	0.0004973	250000580000	ORANGE	CARROLL	OH	0.04973%	100.00000%	0.04973%			60 Kelso Road	McDonald	PA	15057
77	34-0002198-000	FRANK J AND MELISSA M HOWARD	YES	0.20212713	0.0008300	250000581000	ORANGE	CARROLL	OH	0.08300%	100.00000%	0.08300%			60 Kelso Road	McDonald	PA	15057
78	34-0002198-000	FRANK J AND MELISSA M HOWARD	YES	0.35797890	0.0014700	250000582000	ORANGE	CARROLL	OH	0.14700%	100.00000%	0.14700%			60 Kelso Road	McDonald	PA	15057
79	34-036839-000	JERRY D. NICHOLAS, II	YES	0.22784963	0.0009357	250000627000	ORANGE	CARROLL	OH	0.09357%	100.00000%	0.09357%			7484 Justus Avenue SW	Navare	OH	44662
80	34-036839-000	JERRY D. NICHOLAS, II	YES	0.22186791	0.0009111	250000628000	ORANGE	CARROLL	OH	0.09111%	100.00000%	0.09111%			7484 Justus Avenue SW	Navare	OH	44662
81	34-001402-000	ROBERT M BASHAM, A SINGLE MAN	YES	0.32145691	0.0013200	250000645000	ORANGE	CARROLL	OH	0.13200%	100.00000%	0.13200%			7982 Lakeview Dr. SW	Carrollton	OH	44615
82	34-037276-000	SIEGFRIED JOSEPH LEJEUNE	YES	0.45168177	0.0018548	250000646000	ORANGE	CARROLL	OH	0.18548%	100.00000%	0.18548%			3282 Seeman Drive SW	Carrollton	OH	44615
83	34-037520-000	REINHOLD MUELLER	YES	0.51465178	0.0021134	250000647000	ORANGE	CARROLL	OH	0.21134%	100.00000%	0.21134%			Prantelstrasse 25	A-6380 St. Johann	Austria	N/A
84	34-001402-000	ROBERT M BASHAM, A SINGLE MAN	YES	0.31763166	0.0013043	250000648000	ORANGE	CARROLL	OH	0.13043%	100.00000%	0.13043%			7982 Lakeview Dr. SW	Carrollton	OH	44615
85	34-001402-000	ROBERT M BASHAM, A SINGLE MAN	YES	0.31419356	0.0012902	250000649000	ORANGE	CARROLL	OH	0.12902%	100.00000%	0.12902%			7982 Lakeview Dr. SW	Carrollton	OH	44615
86	34-0001557-000	JASON VICTOR MARIOL AND TAMME LOUISE	YES	0.11948294	0.0004907	250000702000	ORANGE	CARROLL	OH	0.04907%	100.00000%	0.04907%			207 Highland Avenue SW	Massillon	OH	44646
87		JOHN EDWARD CLARK AND BEVERLY MARIE CLARK	NO	0.071880	0.000295	250000703000	ORANGE	CARROLL	OH	0.02952%					7797 West Road	Carrollton	OH	44615
88	34-0001274-001	WAYNE M SIGMAN AND TAMMY R SIGMAN	YES	0.0963608	0.0003957	250000716000	ORANGE	CARROLL	OH	0.03957%	100.00000%	0.03957%			4003 Bower Road	Rootstown	OH	44272
89	34-0001274-001	WAYNE M SIGMAN AND TAMMY R SIGMAN	YES	0.19471319	0.0007996	250000717000	ORANGE	CARROLL	OH	0.07996%	100.00000%	0.07996%			4003 Bower Road	Rootstown	OH	44272
90	34-0001389-000	SUNNY KAREN GAY ZENGLER	YES	0.2899652	0.0011909	250000718000	ORANGE	CARROLL	OH	0.11909%	100.00000%	0.11909%			3004 Summertree Drive	Sebring	FL	33872
91	34-036034-000	JOHN M. SHOCKEY AND DARLENE S.	YES	0.30315381	0.0012449	250000719000	ORANGE	CARROLL	OH	0.12449%	100.00000%	0.12449%			3296 Seemann Drive SW	Carrollton	OH	44615
92	34-0002457-000	EDDIE MATHES	YES	0.00816982	0.0000335	250000732000	ORANGE	CARROLL	OH	0.00335%	100.00000%	0.00335%			2529 Endrow Avenue NE	Canton	OH	44705
93	34-037903-000	PAUL L. ISNER	YES	0.23053253	0.0009467	250000757000	ORANGE	CARROLL	OH	0.09467%	100.00000%	0.09467%			PO Box 149	Randolph	OH	44265
94	34-019865-000	ROBERT W. MCFARLAND AND SHARON	YES	34.16413737	0.1402934	250000761000	ORANGE	CARROLL	OH	14.02934%	62.50000%	8.76834%	37.50000%	5.26100%	6164 Dodge Road SW	Canton	OH	44706
95	34-0001348-001	JOHN AND DARLENE MAST	YES	0.0022266	0.0000091	250000777000	ORANGE	CARROLL	OH	0.00091%	100.00000%	0.00091%			3839 Tabor Ridge Rd.	Mineral City	OH	44656
	34-0002051-001	SCOTT ELDON NEWELL	YES	0.0089063	0.0000366	250000777000	ORANGE	CARROLL	OH	0.00366%	100.00000%	0.00366%			6520 Ripley Rd. NE	New Philadelphia	OH	44663
	34-0001309-001	JACQUELYN FENTON	YES	0.0089063	0.0000366	250000777000	ORANGE	CARROLL	OH	0.00366%	100.00000%	0.00366%			1131 Crater Avenue	Dover	OH	44622
	34-0001349-001	KENNETH D KOLLAR JR AND MICHELLE L KOLLAR	YES	0.0022266	0.0000091	250000777000	ORANGE	CARROLL	OH	0.00091%	100.00000%	0.00091%			2655 Blendon Woods Blvd.	Columbus	OH	43231
	34-0001350-001	KEVIN J KOLLAR AND TIA L KOLLAR	YES	0.0022266	0.0000091	250000777000	ORANGE	CARROLL	OH	0.00091%	100.00000%	0.00091%			5867 Forest Hills Blvd.	Columbus	OH	43231
	34-0001351-001	MELODY KOLLAR	YES	0.0022266	0.0000091	250000777000	ORANGE	CARROLL	OH	0.00091%	100.00000%	0.00091%			308 N. Canal St.	Bolivar	OH	44612
96	34-037418-000	MICHAEL C. PATTERSON	YES	0.36004647	0.0014785	250000802000	ORANGE	CARROLL	OH	0.14785%	100.00000%	0.14785%			8064 Pinaok Drive SW	Carrollton	OH	44615
97	34-001402-000	ROBERT M BASHAM, A SINGLE MAN	YES	0.38560252	0.0015835	250000803000	ORANGE	CARROLL	OH	0.15835%	100.00000%	0.15835%			7982 Lakeview Dr. SW	Carrollton	OH	44615
98		INGRID H KELLEY	NO	0.236052	0.000969	250000804000	ORANGE	CARROLL	OH	0.09693%					902 Belemeade Street	Arlington	TX	76014
99	34-0001301-000	DENISE D GANDER	YES	0.39431109	0.0016193	250000805000	ORANGE	CARROLL	OH	0.16193%	100.00000%	0.16193%			668 Dalton Fox Lake Road	Dalton	OH	44618
100	1-326798-000	DOMINIC C PAGLIALUNGA AND	YES	1.07511812	0.0044149	250000807000	ORANGE	CARROLL	OH	0.44149%	100.00000%	0.44149%			4199 Meadowview Dr. NW	Canton	OH	44718

TRACT NUMBER	CHK LEASE ID NUMBER	LESSOR	LEASED YES/NO	SURFACE ACRES IN UNIT	TRACT PARTICIPATION	TAX MAP PARCEL ID NUMBERS	TOWNSHIP	COUNTY	STATE	UNIT WORKING INTEREST	CHESAPEAKE WORKING INTEREST	CHESAPEAKE UNIT PARTICIPATION	EV WORKING INTEREST	EV UNIT PARTICIPATION	ADDRESS	CITY	STATE	ZIP CODE
101	34-036604-000	DAVID SAMS, A WIDOWER	YES	0.09920259	0.0004074	250000827000	ORANGE	CARROLL	OH	0.04074%	100.00000%	0.04074%			425 Market Street NE	Navarre	OH	44662
102	34-038365-000	MARK SAMS AND DENISE SAMS	YES	0.02383099	0.0000979	250000828000	ORANGE	CARROLL	OH	0.00979%	100.00000%	0.00979%			9915 Mennonite Road	Rittman	OH	44270
103	34-001402-000	ROBERT M BASHAM, A SINGLE MAN	YES	0.05579596	0.0002291	250000830000	ORANGE	CARROLL	OH	0.02291%	100.00000%	0.02291%			7982 Lakeview Dr SW	Carrollton	OH	44615
104	34-001402-000	ROBERT M BASHAM, A SINGLE MAN	YES	0.27584189	0.0011327	250000831000	ORANGE	CARROLL	OH	0.11327%	100.00000%	0.11327%			7982 Lakeview Dr SW	Carrollton	OH	44615
105	1-326797-000	DOMINIC C PAGUALUNGA AND	YES	0.36413417	0.0014953	250000836000	ORANGE	CARROLL	OH	0.14953%	100.00000%	0.14953%			4199 Meadowview Rd NW	Canton	OH	44718
106	34-0001289-001	MARK E. AND MARY PROVENS	YES	0.00004843	0.0000002	250000869000	ORANGE	CARROLL	OH	0.00002%	100.00000%	0.00002%			7590 Palmer Rd. SW	Pataskala	OH	43062
	34-0001289-001	DENNIS L AULTMAN AND DEBORAH S. AULTMAN	YES	0.00004843	0.0000002	250000869000	ORANGE	CARROLL	OH	0.00002%	100.00000%	0.00002%			338 Summerhill Road	Madison	CT	6443
107	34-037884-000	PRYSOCK FAMILY REVOCABLE TRUST	YES	0.28617796	0.0011752	250000875000	ORANGE	CARROLL	OH	0.11752%	100.00000%	0.11752%			5595 Cherokee NW	North Canton	OH	44720
108	34-037884-000	PRYSOCK FAMILY REVOCABLE TRUST	YES	0.28936049	0.0011882	250000876000	ORANGE	CARROLL	OH	0.11882%	100.00000%	0.11882%			5595 Cherokee NW	North Canton	OH	44720
109	34-0002376-000	JEFFREY S REED AND NANCY E REED	YES	0.00235867	0.0000097	250000879000	ORANGE	CARROLL	OH	0.00097%					PO Box 112	Dellroy	OH	44620
110	34-036604-000	DAVID SAMS, A WIDOWER	YES	0.23350597	0.0009589	250000894000	ORANGE	CARROLL	OH	0.09589%	100.00000%	0.09589%			425 Market Street NE	Navarre	OH	44662
111	34-037873-001	CHARLES H. PLOTT	YES	0.28511380	0.0011708	250000915000	ORANGE	CARROLL	OH	0.11708%	100.00000%	0.11708%			57 24th Street NW	Massillon	OH	44647
112	34-037873-001	CHARLES H. PLOTT	YES	0.36440790	0.0014964	250000916000	ORANGE	CARROLL	OH	0.14964%	100.00000%	0.14964%			57 24th Street NW	Massillon	OH	44647
113	34-037520-000	REINHOLD MUELLER	YES	0.34247083	0.0014063	250000919000	ORANGE	CARROLL	OH	0.14063%	100.00000%	0.14063%			Prantelstrasse 25	A-6380 St. Johann	Austria	N/A
114	34-037520-000	REINHOLD MUELLER	YES	0.34231713	0.0014057	250000920000	ORANGE	CARROLL	OH	0.14057%	100.00000%	0.14057%			Prantelstrasse 25	A-6380 St. Johann	Austria	N/A
115	34-037418-000	MICHAEL C. PATTERSON	YES	0.39288150	0.0016133	250000931000	ORANGE	CARROLL	OH	0.16133%	100.00000%	0.16133%			8064 Pinoak Drive SW	Carrollton	OH	44615
116	34-037418-000	MICHAEL C. PATTERSON	YES	0.41850806	0.0017186	250000932000	ORANGE	CARROLL	OH	0.17186%	100.00000%	0.17186%			8064 Pinoak Drive SW	Carrollton	OH	44615
117	34-037418-000	MICHAEL C. PATTERSON	YES	0.37208230	0.0015279	250000933000	ORANGE	CARROLL	OH	0.15279%	100.00000%	0.15279%			8064 Pinoak Drive SW	Carrollton	OH	44615
118	34-038737-000	DANIEL SUKOSD AND CAROL SUKOSD	YES	0.28104807	0.0011541	250000934000	ORANGE	CARROLL	OH	0.11541%	100.00000%	0.11541%			8491 Justus Avenue	Navarre	OH	44662
119	34-037272-000	DONALD E. WEIGAND, SR.	YES	0.24746580	0.0010162	250000952000	ORANGE	CARROLL	OH	0.10162%	100.00000%	0.10162%			8365 Seeman Drive SW	Carrollton	OH	44615
120	34-035960-000	SAMUEL D. MIZE AND SHARON S.	YES	0.55797506	0.0022913	250000953000	ORANGE	CARROLL	OH	0.22913%	100.00000%	0.22913%			3010 Sheila Street NW	Massillon	OH	44646
121	34-035960-000	SAMUEL D. MIZE AND SHARON S.	YES	0.43181864	0.0017732	250000954000	ORANGE	CARROLL	OH	0.17732%	100.00000%	0.17732%			3010 Sheila Street NW	Massillon	OH	44646
122	34-0000454-000	RUSSELL R. BROWN AND TAUINIE	YES	0.11941840	0.0004904	250000965001	ORANGE	CARROLL	OH	0.04904%	100.00000%	0.04904%			7976 Lakewood Drive	Carrollton	OH	44615
123	34-037493-000	THOMAS E. GROVE AND GERALDINE	YES	0.17677371	0.0007259	250000971000	ORANGE	CARROLL	OH	0.07259%	100.00000%	0.07259%			420 23rd Street NW	Canton	OH	44709
124	34-037493-000	THOMAS E. GROVE AND GERALDINE	YES	0.22303925	0.0009159	250000972000	ORANGE	CARROLL	OH	0.09159%	100.00000%	0.09159%			420 23rd Street NW	Canton	OH	44709
125	34-037493-000	THOMAS E. GROVE AND GERALDINE	YES	0.19645943	0.0008068	250000973000	ORANGE	CARROLL	OH	0.08068%	100.00000%	0.08068%			420 23rd Street NW	Canton	OH	44709
126	34-036604-000	DAVID SAMS, A WIDOWER	YES	0.04971486	0.0002042	250000974000	ORANGE	CARROLL	OH	0.02042%	100.00000%	0.02042%			425 Market Street NE	Navarre	OH	44662
127	34-001577-000	EVERETT W. AYERS AND SHARON K.	YES	0.01050598	0.0000431	250000993000	ORANGE	CARROLL	OH	0.00431%	100.00000%	0.00431%			3268 Seemann Dr. SW	Carrollton	OH	44615
128	34-001577-000	EVERETT W. AYERS AND SHARON K.	YES	0.00056779	0.0000023	250001000000	ORANGE	CARROLL	OH	0.00023%	100.00000%	0.00023%			3268 Seemann Dr. SW	Carrollton	OH	44615
129	34-001577-000	EVERETT W. AYERS AND SHARON K.	YES	0.05639578	0.0002316	250001001000	ORANGE	CARROLL	OH	0.02316%	100.00000%	0.02316%			3268 Seemann Dr. SW	Carrollton	OH	44615
130	34-001577-000	EVERETT W. AYERS AND SHARON K.	YES	0.14474088	0.0005944	250001002000	ORANGE	CARROLL	OH	0.05944%	100.00000%	0.05944%			3268 Seemann Dr. SW	Carrollton	OH	44615
131	34-037780-000	ROBIN LEMASTER	YES	0.22250291	0.0009137	250001003000	ORANGE	CARROLL	OH	0.09137%	100.00000%	0.09137%			125 Marks Avenue	Lancaster	OH	43130
132	34-036477-000	GARY J. GRIMES AND CAROL	YES	0.22489471	0.0009235	250001004000	ORANGE	CARROLL	OH	0.09235%	100.00000%	0.09235%			5312 Ridge Avenue SE	Canton	OH	44707
133	34-036477-000	GARY J. GRIMES AND CAROL	YES	0.21992960	0.0009031	250001005000	ORANGE	CARROLL	OH	0.09031%	100.00000%	0.09031%			5312 Ridge Avenue SE	Canton	OH	44707
134	1-384193-000	THOMAS G. & NANCY L. BAUER, HU	YES	0.22388954	0.0009194	250001006000	ORANGE	CARROLL	OH	0.09194%	100.00000%	0.09194%			2200 Dubline Rd SW	Carrollton	OH	44615
135		INGRID H KELLEY	NO	0.234523	0.000963	250001007000	ORANGE	CARROLL	OH	0.09631%					902 Belemeade Street	Arlington	TX	76014
136		INGRID H KELLEY	NO	0.281732	0.001157	250001008000	ORANGE	CARROLL	OH	0.11569%					902 Belemeade Street	Arlington	TX	76014
137	34-037878-000	JAMES E. BUTLER AND DOROTHY A.	YES	0.2791016	0.0011461	250001009000	ORANGE	CARROLL	OH	0.11461%	100.00000%	0.11461%			8343 Seemann Dr. SW	Carrollton	OH	44615
138	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.2077923	0.0008533	250001010000	ORANGE	CARROLL	OH	0.08533%	100.00000%	0.08533%			7282 Autumn Road SW	Carrollton	OH	44615
139	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.1427410	0.0005862	250001010001	ORANGE	CARROLL	OH	0.05862%	100.00000%	0.05862%			7282 Autumn Road SW	Carrollton	OH	44615
140	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.3340144	0.0013716	250001011000	ORANGE	CARROLL	OH	0.13716%	100.00000%	0.13716%			7282 Autumn Road SW	Carrollton	OH	44615
141	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.2878852	0.0011822	250001012000	ORANGE	CARROLL	OH	0.11822%	100.00000%	0.11822%			7282 Autumn Road SW	Carrollton	OH	44615
142	34-034448-000	WILLIAM R. BRADLEY AND SHIRLEY	YES	0.2599829	0.0010676	250001013000	ORANGE	CARROLL	OH	0.10676%	100.00000%	0.10676%			7282 Autumn Road SW	Carrollton	OH	44615
143	34-001577-000	EVERETT W. AYERS AND SHARON K.	YES	0.4284285	0.0017593	250001014000	ORANGE	CARROLL	OH	0.17593%	100.00000%	0.17593%			3268 Seemann Dr. SW	Carrollton	OH	44615
144	34-001577-000	EVERETT W. AYERS AND SHARON K.	YES	0.4164252	0.0017100	250001015000	ORANGE	CARROLL	OH	0.17100%	100.00000%	0.17100%			3268 Seemann Dr. SW	Carrollton	OH	44615
145	34-001577-000	EVERETT W. AYERS AND SHARON K.	YES	0.0379262	0.0001557	250001016000	ORANGE	CARROLL	OH	0.01557%	100.00000%	0.01557%			3268 Seemann Dr. SW	Carrollton	OH	44615
146	34-001577-000	EVERETT W. AYERS AND SHARON K.	YES	0.1718052	0.0007055	250001019000	ORANGE	CARROLL	OH	0.07055%	100.00000%	0.07055%			3268 Seemann Dr. SW	Carrollton	OH	44615
147	34-001577-000	EVERETT W. AYERS AND SHARON K.	YES	0.3713309	0.0015249	250001020000	ORANGE	CARROLL	OH	0.15249%	100.00000%	0.15249%			3268 Seemann Dr. SW	Carrollton	OH	44615
148	34-001577-000	EVERETT W. AYERS AND SHARON K.	YES	0.4411903	0.0018117	250001021000	ORANGE	CARROLL	OH	0.18117%	100.00000%	0.18117%			3268 Seemann Dr. SW	Carrollton	OH	44615
149	34-0000454-000	RUSSELL R. BROWN AND TAUINIE	YES	0.2980065	0.0012237	250001022000	ORANGE	CARROLL	OH	0.12237%	100.00000%	0.12237%			7976 Lakeview Drive	Carrollton	OH	44615
150	34-0000454-000	RUSSELL R. BROWN AND TAUINIE	YES	0.3606443	0.0014810	250001023000	ORANGE	CARROLL	OH	0.14810%	100.00000%	0.14810%			7976 Lakeview Drive	Carrollton	OH	44615
151	34-0000454-000	RUSSELL R. BROWN AND TAUINIE	YES	0.3493132	0.0014344	250001024000	ORANGE	CARROLL	OH	0.14344%	100.00000%	0.14344%			7976 Lakeview Drive	Carrollton	OH	44615
152	34-037275-000	MARTHA LEJEUNE AND SIEGFRIED L	YES	0.4487661	0.0018428	250001025000	ORANGE	CARROLL	OH	0.18428%	100.00000%	0.18428%			3282 Seeman Drive	Carrollton	OH	44615
153	34-037306-000	MARTHA EJEUNE	YES	0.3202998	0.0013153	250001026000	ORANGE	CARROLL	OH	0.13153%	100.00000%	0.13153%			3282 Seeman Drive	Carrollton	OH	44615

TRACT NUMBER	CHK LEASE ID NUMBER	LESSOR	LEASED YES/NO	SURFACE ACRES IN UNIT	TRACT PARTICIPATION	TAX MAP PARCEL ID NUMBERS	TOWNSHIP	COUNTY	STATE	UNIT WORKING INTEREST	CHESAPEAKE WORKING INTEREST	CHESAPEAKE UNIT PARTICIPATION	EV WORKING INTEREST	EV UNIT PARTICIPATION	ADDRESS	CITY	STATE	ZIP CODE
154	34-0000218-001	SANDI S. SCHLEMMER	YES	0.3241954	0.0013313	250001027000	ORANGE	CARROLL	OH	0.13313%	100.00000%	0.13313%			717 38th Street NW	Canton	OH	44709
155	34-0000218-001	SANDI S. SCHLEMMER	YES	0.3256864	0.0013374	250001028000	ORANGE	CARROLL	OH	0.13374%	100.00000%	0.13374%			717 38th Street NW	Canton	OH	44709
156	34-0000218-001	SANDI S. SCHLEMMER	YES	0.3478869	0.0014286	250001029000	ORANGE	CARROLL	OH	0.14286%	100.00000%	0.14286%			717 38th Street NW	Canton	OH	44709
157		CHERYL L BUTLER	NO	0.315286	0.001295	250001030000	ORANGE	CARROLL	OH	0.12947%					8343 Seemann Drive SW	Carrollton	OH	44615
158	34-019029-000	DWIGHT L. VAN METER, A WIDOWER	YES	0.3438342	0.0014119	250001031000	ORANGE	CARROLL	OH	0.14119%	100.00000%	0.14119%			3261 Seeman Drive	Carrollton	OH	44615
159	34-019029-000	DWIGHT L. VAN METER, A WIDOWER	YES	0.4560923	0.0018729	250001032000	ORANGE	CARROLL	OH	0.18729%	100.00000%	0.18729%			3261 Seeman Drive	Carrollton	OH	44615
160	34-019029-000	DWIGHT L. VAN METER, A WIDOWER	YES	0.4642080	0.0019062	250001033000	ORANGE	CARROLL	OH	0.19062%	100.00000%	0.19062%			3261 Seeman Drive	Carrollton	OH	44615
161	34-0001301-000	DENISE D GANDER	YES	0.4083160	0.0016767	250001034000	ORANGE	CARROLL	OH	0.16767%	100.00000%	0.16767%			668 Dalton Fox Lake Road	Dalton	OH	44618
162	34-0001301-000	DENISE D GANDER	YES	0.4569201	0.0018763	250001035000	ORANGE	CARROLL	OH	0.18763%	100.00000%	0.18763%			668 Dalton Fox Lake Road	Dalton	OH	44618
163	34-0001301-000	DENISE D GANDER	YES	0.5230519	0.0021479	250001036000	ORANGE	CARROLL	OH	0.21479%	100.00000%	0.21479%			668 Dalton Fox Lake Road	Dalton	OH	44618
164	34-0001301-000	DENISE D GANDER	YES	0.3581263	0.0014706	250001037000	ORANGE	CARROLL	OH	0.14706%	100.00000%	0.14706%			668 Dalton Fox Lake Road	Dalton	OH	44618
165		CHERYL L BUTLER	NO	0.348663	0.001432	250001038000	ORANGE	CARROLL	OH	0.14318%					8343 Seemann Drive SW	Carrollton	OH	44615
166		CHERYL L BUTLER	NO	0.355824	0.001461	250001039000	ORANGE	CARROLL	OH	0.14612%					8343 Seemann Drive SW	Carrollton	OH	44615
167		CHERYL L BUTLER	NO	0.342214	0.001405	250001040000	ORANGE	CARROLL	OH	0.14053%					8343 Seemann Drive SW	Carrollton	OH	44615
168		CHERYL L BUTLER	NO	0.337372	0.001385	250001041000	ORANGE	CARROLL	OH	0.13854%					8343 Seemann Drive SW	Carrollton	OH	44615
169	34-031586-000	JOHN OSTER AND CHRISTINE OSTER	YES	0.43644617	0.0017922	250001042000	ORANGE	CARROLL	OH	0.17922%	100.00000%	0.17922%			1516 Dunketh Drive	Canton	OH	44708
170	34-037878-000	JAMES E. BUTLER AND DOROTHY A.	YES	0.02676000	0.0001099	250001048000	ORANGE	CARROLL	OH	0.01099%	100.00000%	0.01099%			8343 Seeman Drive SW	Carrollton	OH	44615
171	34-037878-000	JAMES E. BUTLER AND DOROTHY A.	YES	0.13669333	0.0005613	250001049000	ORANGE	CARROLL	OH	0.05613%	100.00000%	0.05613%			8343 Seeman Drive SW	Carrollton	OH	44615
172	34-001731-000	KATHERINE AYERS, A WIDOW	YES	0.2540221	0.0010365	250001050000	ORANGE	CARROLL	OH	0.10365%	100.00000%	0.10365%			6515 Portage St NW	North Canton	OH	44720
173	34-001731-000	KATHERINE AYERS, A WIDOW	YES	0.36892776	0.0015150	250001051000	ORANGE	CARROLL	OH	0.15150%	100.00000%	0.15150%			6515 Portage St NW	North Canton	OH	44720
174	34-001731-000	KATHERINE AYERS, A WIDOW	YES	0.40907553	0.0016798	250001052000	ORANGE	CARROLL	OH	0.16798%	100.00000%	0.16798%			6515 Portage St NW	North Canton	OH	44720
175	34-001731-000	KATHERINE AYERS, A WIDOW	YES	0.89309195	0.0036674	250001053000	ORANGE	CARROLL	OH	0.36674%	100.00000%	0.36674%			6515 Portage St NW	North Canton	OH	44720
176	34-037345-000	JULIE DENISE FUNK	YES	0.73245728	0.0030078	250001054000	ORANGE	CARROLL	OH	0.30078%	100.00000%	0.30078%			13542 Sunflower	Mogadore	OH	44260
177	34-001731-000	KATHERINE AYERS, A WIDOW	YES	0.50922418	0.0020911	250001055000	ORANGE	CARROLL	OH	0.20911%	100.00000%	0.20911%			6515 Portage St NW	North Canton	OH	44720
178	34-036034-000	JOHN M. SHOCKEY AND DARLENE S.	YES	0.37980842	0.0015597	250001056000	ORANGE	CARROLL	OH	0.15597%	100.00000%	0.15597%			3296 Seemann Drive SW	Carrollton	OH	44615
179	34-036034-000	JOHN M. SHOCKEY AND DARLENE S.	YES	0.33374218	0.0013705	250001057000	ORANGE	CARROLL	OH	0.13705%	100.00000%	0.13705%			3296 Seemann Drive SW	Carrollton	OH	44615
180	34-037571-000	ELLEN M. BAILEY	YES	0.34156996	0.0014026	250001058000	ORANGE	CARROLL	OH	0.14026%	100.00000%	0.14026%			1034 46th Street SW	Canton	OH	44706
181	34-037571-000	ELLEN M. BAILEY	YES	0.37925520	0.0015574	250001059000	ORANGE	CARROLL	OH	0.15574%	100.00000%	0.15574%			1034 46th Street SW	Canton	OH	44706
182	34-037571-000	ELLEN M. BAILEY	YES	0.31250302	0.0012833	250001060000	ORANGE	CARROLL	OH	0.12833%	100.00000%	0.12833%			1034 46th Street SW	Canton	OH	44706
183	34-037520-000	REINHOLD MUELLER	YES	0.32456446	0.0013328	250001062000	ORANGE	CARROLL	OH	0.13328%	100.00000%	0.13328%			Prantelstrasse 25	A-6380 St. Johann	Austria	
184	34-037635-000	SHERRY BOUSLAUGH AND FRANKIE	YES	0.33057729	0.0013575	250001063000	ORANGE	CARROLL	OH	0.13575%	100.00000%	0.13575%			7994 Poplar Drive SW	Carrollton	OH	44615
185	34-0001546-000	GEORGE B SARAC	YES	0.49187014	0.0020198	250001064000	ORANGE	CARROLL	OH	0.20198%	100.00000%	0.20198%			3765 Garden North Dr.	Las Vegas	NV	89121
186	34-021273-000	STEVE L. CENTEA AND SHERRIE	YES	0.36689528	0.0015066	250001065000	ORANGE	CARROLL	OH	0.15066%	100.00000%	0.15066%			23 Clarks Chapel Ext.	Weaverille	NC	28787
187	34-0000216-000	JFREY H. BONECUTTER	YES	0.36857517	0.0015176	250001066000	ORANGE	CARROLL	OH	0.15176%	100.00000%	0.15176%			6089 County Highway 22A	Bloomington	OH	43910
188	34-021273-000	STEVE L. CENTEA AND SHERRIE	YES	0.37358201	0.0015341	250001067000	ORANGE	CARROLL	OH	0.15341%	100.00000%	0.15341%			23 Clarks Chapel Ext.	Weaverille	NC	28787
189	34-021273-000	STEVE L. CENTEA AND SHERRIE	YES	0.25129163	0.0010319	250001068000	ORANGE	CARROLL	OH	0.10319%	100.00000%	0.10319%			23 Clarks Chapel Ext.	Weaverille	NC	28787
190	34-0000454-000	RUSSELL R. BROWN AND TAUINIE	YES	0.43243167	0.0017758	250001081000	ORANGE	CARROLL	OH	0.17758%	100.00000%	0.17758%			7976 Lakeview Drive	Carrollton	OH	44615
191	34-0000454-000	RUSSELL R. BROWN AND TAUINIE	YES	0.34292218	0.0014082	250001082000	ORANGE	CARROLL	OH	0.14082%	100.00000%	0.14082%			7976 Lakeview Drive	Carrollton	OH	44615
192	34-0000454-000	RUSSELL R. BROWN AND TAUINIE	YES	0.23115813	0.0009492	250001083000	ORANGE	CARROLL	OH	0.09492%	100.00000%	0.09492%			7976 Lakeview Drive	Carrollton	OH	44615
193	34-0000454-000	RUSSELL R. BROWN AND TAUINIE	YES	0.21306471	0.0008749	250001084000	ORANGE	CARROLL	OH	0.08749%	100.00000%	0.08749%			7976 Lakeview Drive	Carrollton	OH	44615
194	34-0000454-000	RUSSELL R. BROWN AND TAUINIE	YES	0.19884981	0.0008166	250001085000	ORANGE	CARROLL	OH	0.08166%	100.00000%	0.08166%			7976 Lakeview Drive	Carrollton	OH	44615
195	34-031586-000	JOHN OSTER AND CHRISTINE OSTER	YES	0.37163207	0.0015261	250001086000	ORANGE	CARROLL	OH	0.15261%	100.00000%	0.15261%			1516 Dunketh Drive	Canton	OH	44708
196	34-031586-000	JOHN OSTER AND CHRISTINE OSTER	YES	0.05706693	0.0002343	250001087000	ORANGE	CARROLL	OH	0.02343%	100.00000%	0.02343%			1516 Dunketh Drive	Canton	OH	44708
197	34-029676-000	STEPHEN BELOPOTOSKY	YES	0.25156221	0.0010330	250001103000	ORANGE	CARROLL	OH	0.10330%	100.00000%	0.10330%			8373 Seeman Drive SW	Carrollton	OH	44615
198	34-029676-000	STEPHEN BELOPOTOSKY	YES	0.23452719	0.0009631	250001104000	ORANGE	CARROLL	OH	0.09631%	100.00000%	0.09631%			8373 Seeman Drive SW	Carrollton	OH	44615
199	34-038037-000	BONITA LYNN TRIMBLE	YES	0.03667243	0.0001506	250001117000	ORANGE	CARROLL	OH	0.01506%	100.00000%	0.01506%			29735 Street Route 30	Hanoverton	OH	44423
200	34-038037-000	BONITA LYNN TRIMBLE	YES	0.01218281	0.0000500	250001118000	ORANGE	CARROLL	OH	0.00500%	100.00000%	0.00500%			29735 Street Route 30	Hanoverton	OH	44423
201	34-024084-000	WAYNE M. SIGMAN AND TAMMY R.	YES	0.00044844	0.0000018	250001155000	ORANGE	CARROLL	OH	0.00018%	100.00000%	0.00018%			4003 Bower Road	Rootstown	OH	44272
202	34-036833-000	CONNIE D. TRACHSEL AND DENNIS	YES	0.29729453	0.0012208	250001187000	ORANGE	CARROLL	OH	0.12208%	100.00000%	0.12208%			PO Box 48	Malvern	OH	44644
203	34-038737-000	DANIEL SUKOSD AND CAROL SUKOSD	YES	0.26772743	0.0010994	250001206000	ORANGE	CARROLL	OH	0.10994%	100.00000%	0.10994%			8491 Justus Avenue	Navarre	OH	44662
204		BARBARA J ANDRESCAVAGE AND WILLIAM C ANDRESCAVAGE	NO	0.141161	0.000580	250001208000	ORANGE	CARROLL	OH	0.05797%					HC 78 Box 115A-1	Rock Cave	WV	26234
205		BARBARA J ANDRESCAVAGE AND WILLIAM C ANDRESCAVAGE	NO	0.122356	0.000502	250001209000	ORANGE	CARROLL	OH	0.05024%					HC 78 Box 115A-1	Rock Cave	WV	26234
206		BARBARA J ANDRESCAVAGE AND WILLIAM C ANDRESCAVAGE	NO	0.439187	0.001804	250001210000	ORANGE	CARROLL	OH	0.18035%					HC 78 Box 115A-1	Rock Cave	WV	26234
207	34-038109-000	PATRICK M. O'BRIEN AND GAYLE	YES	0.07512673	0.0003085	250001227000	ORANGE	CARROLL	OH	0.03085%	100.00000%	0.03085%			5056 Wedgewood Road	Medina	OH	44256

TRACT NUMBER	CHK LEASE ID NUMBER	LESSOR	LEASED YES/NO	SURFACE ACRES IN UNIT	TRACT PARTICIPATION	TAX MAP PARCEL ID NUMBERS	TOWNSHIP	COUNTY	STATE	UNIT WORKING INTEREST	CHESAPEAKE WORKING INTEREST	CHESAPEAKE UNIT PARTICIPATION	EV WORKING INTEREST	EV UNIT PARTICIPATION	ADDRESS	CITY	STATE	ZIP CODE
208	34-036839-000	JERRY D. NICHOLAS, II	YES	0.54907242	0.0022547	250001248000	ORANGE	CARROLL	OH	0.22547%	100.00000%	0.22547%			7484 Justus Avenue SW	Navarre	OH	44662
209	34-0000454-000	RUSSELL R. BROWN AND TAWNIE	YES	0.11311125	0.0004645	250001267000	ORANGE	CARROLL	OH	0.04645%	100.00000%	0.04645%			7976 Lakeview Drive	Carrollton	OH	44615
210	34-037952-000	FREDERICK D. SMITH	YES	0.110065107	0.0004544	250001268000	ORANGE	CARROLL	OH	0.04544%	100.00000%	0.04544%			6983 Scenic View Drive	Findlay	OH	45840
211	34-037952-000	FREDERICK D. SMITH	YES	0.13780617	0.0005659	250001269000	ORANGE	CARROLL	OH	0.05659%	100.00000%	0.05659%			6983 Scenic View Drive	Findlay	OH	45840
212	34-037952-000	FREDERICK D. SMITH	YES	0.13123370	0.0005389	250001270000	ORANGE	CARROLL	OH	0.05389%	100.00000%	0.05389%			6983 Scenic View Drive	Findlay	OH	45840
213	34-037952-000	FREDERICK D. SMITH	YES	0.30672799	0.0012596	250001271000	ORANGE	CARROLL	OH	0.12596%	100.00000%	0.12596%			6983 Scenic View Drive	Findlay	OH	45840
214	34-037952-000	FREDERICK D. SMITH	YES	0.29165905	0.0011977	250001272000	ORANGE	CARROLL	OH	0.11977%	100.00000%	0.11977%			6983 Scenic View Drive	Findlay	OH	45840
215	34-023472-000	STEPHEN M. EDIE, A SINGLE MAN	YES	4.28935481	0.0176140	250001273000	ORANGE	CARROLL	OH	1.76140%	100.00000%	1.76140%			3047 Amsterdam Road SW	Bowerstown	OH	44695
216	34-003493-000	BOBBY L. HULL, A SINGLE PERSON	YES	0.17188342	0.0007058	250001281000	ORANGE	CARROLL	OH	0.07058%	100.00000%	0.07058%			5251 Norco Road	Carrollton	OH	44615
217	34-0000046-000	JOSEPH W. MANLEY, JR.	YES	0.00798111	0.000328	250001284000	ORANGE	CARROLL	OH	0.00328%	100.00000%	0.00328%			39514 Lodge Road	Leetonia	OH	44431
218	34-003493-000	BOBBY L. HULL, A SINGLE PERSON	YES	0.13957467	0.0005732	250001290000	ORANGE	CARROLL	OH	0.05732%	100.00000%	0.05732%			5251 Norco Road	Carrollton	OH	44615
219	34-003493-000	BOBBY L. HULL, A SINGLE PERSON	YES	0.13308216	0.0005465	250001291000	ORANGE	CARROLL	OH	0.05465%	100.00000%	0.05465%			5251 Norco Road	Carrollton	OH	44615
220	34-037272-000	DONALD E. WEIGAND, SR.	YES	0.24305576	0.0009981	250001292000	ORANGE	CARROLL	OH	0.09981%	100.00000%	0.09981%			8365 Seemann Drive SW	Carrollton	OH	44615
221	34-037272-000	DONALD E. WEIGAND, SR.	YES	0.26213266	0.0010764	250001309000	ORANGE	CARROLL	OH	0.10764%	100.00000%	0.10764%			8365 Seemann Drive SW	Carrollton	OH	44615
222	34-0002429-000	JULIE A PLOTT A/K/A JULIE A. MURPHY AND DANIEL L. PLOTT, WIFE AND HUSBAND	YES	0.25440936	0.0010447	250001311000	ORANGE	CARROLL	OH	0.10447%	100.00000%	0.10447%			8491 Justus Avenue	Navarre	OH	44662
223	34-0002429-000	JULIE A PLOTT A/K/A JULIE A. MURPHY AND DANIEL L. PLOTT, WIFE AND HUSBAND	YES	0.25333573	0.0010403	250001312000	ORANGE	CARROLL	OH	0.10403%	100.00000%	0.10403%			8491 Justus Avenue	Navarre	OH	44662
224		INGRID H KELLEY	NO	0.263021	0.001080	250001313000	ORANGE	CARROLL	OH	0.10801%					902 Belemead Street	Arlington	TX	76014
225	34-037780-000	ROBIN LEMASTER	YES	0.2255534	0.0009262	250001339000	ORANGE	CARROLL	OH	0.09262%	100.00000%	0.09262%			125 Marks Avenue	Lancaster	OH	43130
226	34-037276-000	SIEGFRIED JOSEPH LEJEUNE	YES	0.3966591	0.0016289	250001343000	ORANGE	CARROLL	OH	0.16289%	100.00000%	0.16289%			3282 Seeman Drive SW	Carrollton	OH	44615
227	34-037878-000	JAMES E. BUTLER AND DOROTHY A.	YES	0.3000120	0.0012320	250001359000	ORANGE	CARROLL	OH	0.12320%	100.00000%	0.12320%			8343 Seeman Drive SW	Carrollton	OH	44615
228	34-037878-000	JAMES E. BUTLER AND DOROTHY A.	YES	0.3837278	0.0015758	250001360000	ORANGE	CARROLL	OH	0.15758%	100.00000%	0.15758%			8343 Seeman Drive SW	Carrollton	OH	44615
229	34-030117-000	SANDY LYNN ESTEE AND SUSAN	YES	0.3205746	0.0013164	250001369000	ORANGE	CARROLL	OH	0.13164%	100.00000%	0.13164%			PO Box 112	Magnolia	OH	44643
230	34-001898-000	RICKY L SNAIR AND KAREN J	YES	6.2056491	0.0254832	250002185000	ORANGE	CARROLL	OH	2.54832%	100.00000%	2.54832%			7087 Autumn Rd. SW	Carrollton	OH	44615
231	1-326796-000	DOMINIC C PAGLIALUNGA AND	YES	0.0261239	0.0001073	250002186000	ORANGE	CARROLL	OH	0.01073%	100.00000%	0.01073%			4199 Meadowview Dr. NW	Canton	OH	44718
232	34-000731-000	DELMAR M BURKHART AND DORIS L	YES	1.7913853	0.0073562	250002192000	ORANGE	CARROLL	OH	0.73562%	100.00000%	0.73562%			7055 Autumn Rd SW	Carrollton	OH	44615
233	34-036441-000	THE MUSKINGUM CONSERVANCY	YES	88.8863162	0.3650074	250025MWCD	ORANGE	CARROLL	OH	36.50074%	100.00000%	36.50074%			1319 3rd St NW, Box 349	New Philadelphia	OH	44663
234	34-024123-0239	GREGORY ALLEN EDIE AND JACLYNN	YES	5.8313829	0.0239463	280000325002	PERRY	CARROLL	OH	2.39463%	62.50000%	1.49664%	37.50000%	0.89799%	2259 Amsterdam Road SW	Bowerston	OH	44695
235	34-036441-000	THE MUSKINGUM CONSERVANCY	YES	22.2815804	0.0914983	280060005000	PERRY	CARROLL	OH	9.14983%	100.00000%	9.14983%			1319 3rd St NW, Box 349	New Philadelphia	OH	44663
236	PENDING	CARROLL COUNTY BOARD OF COMMISSIONERS	YES	11.7801133	0.0483745	LAKESHORE ALLOTMENT NO 1	ORANGE	CARROLL	OH	4.83745%	100.00000%	4.83745%			119 S. Lisbon St, Suite 201	Carrollton	OH	44615
TOTAL LEASED ACRES:				237.825110	1.000000					100.00000%		91.38769%		6.15899%				
TOTAL UNIT ACRES:				243.519194														

Exhibit "A-3"
Unitized Parties

Attached to and made a part of that certain Unit Operating Agreement dated December 16, 2014 as approved by the Ohio Department of Natural Resources for the Delmar South Unit.

TRACT NUMBER	LESSOR	ADDRESS	CITY	STATE	ZIP CODE	LEASED YES/NO	SURFACE ACRES IN UNIT	TRACT PARTICIPATION	TAX MAP PARCEL ID NUMBERS	TOWNSHIP	COUNTY	STATE	LESSOR WORKING INTEREST	UNIT PARTICIPATION
12	PETE D HUHN AND JANICE A HUHN	PO BOX 141	MINERVA	OH	44657	NO	0.260889	0.001071	250000100000	ORANGE	CARROLL	OH	100.00%	0.001071
13	PETE D HUHN AND JANICE A HUHN	PO BOX 141	MINERVA	OH	44657	NO	0.234404	0.000963	250000101000	ORANGE	CARROLL	OH	100.00%	0.000963
14	PETE D HUHN AND JANICE A HUHN	PO BOX 141	MINERVA	OH	44657	NO	0.243814	0.001001	250000102000	ORANGE	CARROLL	OH	100.00%	0.001001
15	PETE D HUHN AND JANICE A HUHN	PO BOX 141	MINERVA	OH	44657	NO	0.243806	0.001001	250000103000	ORANGE	CARROLL	OH	100.00%	0.001001
16	PETE D HUHN AND JANICE A HUHN	PO BOX 141	MINERVA	OH	44657	NO	0.228605	0.000939	250000104000	ORANGE	CARROLL	OH	100.00%	0.000939
30	INGRID H KELLY	902 BELEMEADE STREET	ARLINGTON	TX	76014	NO	0.283296	0.001163	250000150000	ORANGE	CARROLL	OH	100.00%	0.001163
40	DJORDJE DRNDARSKI	1821 RIVERFORD ROAD	TUSTIN	CA	92780	NO	0.334506	0.001374	250000258000	ORANGE	CARROLL	OH	100.00%	0.001374
41	DJORDJE DRNDARSKI	1821 RIVERFORD ROAD	TUSTIN	CA	92780	NO	0.375494	0.001542	250000259000	ORANGE	CARROLL	OH	100.00%	0.001542
87	JOHN EDWARD CLARK AND BEVERLY MARIE CLARK	7797 WEST ROAD	CARROLLTON	OH	44615	NO	0.071880	0.000295	250000703000	ORANGE	CARROLL	OH	100.00%	0.000295
98	INGRID H KELLY	902 BELEMEADE STREET	ARLINGTON	TX	76014	NO	0.236052	0.000969	250000804000	ORANGE	CARROLL	OH	100.00%	0.000969
135	INGRID H KELLY	902 BELEMEADE STREET	ARLINGTON	TX	76014	NO	0.234523	0.000963	2500001007000	ORANGE	CARROLL	OH	100.00%	0.000963
136	INGRID H KELLY	902 BELEMEADE STREET	ARLINGTON	TX	76014	NO	0.281732	0.001157	2500001008000	ORANGE	CARROLL	OH	100.00%	0.001157
157	CHERYL L BUTLER	8343 SEEMANN DRIVE SW	CARROLLTON	OH	44615	NO	0.315286	0.001295	2500001030000	ORANGE	CARROLL	OH	100.00%	0.001295
165	CHERYL L BUTLER	8343 SEEMANN DRIVE SW	CARROLLTON	OH	44615	NO	0.348663	0.001432	2500001038000	ORANGE	CARROLL	OH	100.00%	0.001432
166	CHERYL L BUTLER	8343 SEEMANN DRIVE SW	CARROLLTON	OH	44615	NO	0.355824	0.001461	2500001039000	ORANGE	CARROLL	OH	100.00%	0.001461
167	CHERYL L BUTLER	8343 SEEMANN DRIVE SW	CARROLLTON	OH	44615	NO	0.342214	0.001405	2500001040000	ORANGE	CARROLL	OH	100.00%	0.001405
168	CHERYL L BUTLER	8343 SEEMANN DRIVE SW	CARROLLTON	OH	44615	NO	0.337372	0.001385	2500001041000	ORANGE	CARROLL	OH	100.00%	0.001385
204	BARBARA J. ANDRESCAVAGE AND WILLIAM C. ANDRESCAVAGE	HC 78 Box 115A-1	ROCK CAVE	WV	26234	NO	0.141161	0.000580	2500001208000	ORANGE	CARROLL	OH	100.00%	0.000580
205	BARBARA J. ANDRESCAVAGE AND WILLIAM C. ANDRESCAVAGE	HC 78 BOX 115A-1	ROCK CAVE	WV	26234	NO	0.122356	0.000502	2500001209000	ORANGE	CARROLL	OH	100.00%	0.000502
206	BARBARA J. ANDRESCAVAGE AND WILLIAM C. ANDRESCAVAGE	HC 78 BOX 115A-1	ROCK CAVE	WV	26234	NO	0.439187	0.001804	2500001210000	ORANGE	CARROLL	OH	100.00%	0.001804
224	INGRID H KELLY	902 BELEMEADE STREET	ARLINGTON	TX	76014	NO	0.263021	0.001080	2500001313000	ORANGE	CARROLL	OH	100.00%	0.001080
TOTAL UNITIZED ACRES:							5.694084	0.023382						

TRACT NUMBER	LESSOR	ADDRESS	CITY	STATE	ZIP CODE	LEASED YES/NO	SURFACE ACRES IN UNIT	TRACT PARTICIPATION	TAX MAP PARCEL ID NUMBERS	TOWNSHIP	COUNTY	STATE	LESSOR WORKING INTEREST	UNIT PARTICIPATION
							TOTAL UNIT ACRES:	243.519194						

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

In re the Matter of the Application of :
Chesapeake Exploration, L.L.C., for :
Unit Operation : Application Date: December 16, 2014
: :
Delmar South Unit :

**PREPARED TESTIMONY OF TRAVIS GLAUSER
ON BEHALF OF CHESAPEAKE EXPLORATION, L.L.C.**

R. Neal Pierce (0028379)
Katerina E. Milenkovski (0063314)
STEPTOE & JOHNSON PLLC
Huntington Center
41 South High Street, Suite 2200
Columbus, Ohio 43215

Attorneys for Applicant,
Chesapeake Exploration, L.L.C.

Date: December 16, 2014

PREPARED DIRECT TESTIMONY OF TRAVIS GLAUSER

1 **INTRODUCTION.**

2 **Q1. Please state your name and business address.**

3 A1. My name is Travis Glauser and my business address is 6100 N. Western Avenue,
4 Oklahoma City, Oklahoma 73118.

5 **Q2. Who is your employer?**

6 A2. Chesapeake Energy Corporation.

7 **Q3. What is your position with Chesapeake?**

8 A3. I am a Staff Geologist with Chesapeake's Northern Division.

9 **Q4. Please describe your professional responsibilities at Chesapeake.**

10 A4. My general responsibilities include: exploring for new accumulations of oil and gas
11 in the on-shore United States, evaluating prospects in different formations in the
12 Appalachian Basin, planning and monitoring horizontal drilling of wells and
13 mentoring less experienced geoscientists. Additionally, as an operations geologist,
14 I monitor drilling reports and well logs from active drilling of wells to ensure the
15 wellbore stays in the target formation.

16 **Q5. Starting with college, would you describe your education background?**

17 A5. I have a Bachelor's degree in Geology from the University of Kansas (2006) and a
18 Master's Degree in Geology from the University of Kansas (2010).

19 **Q6. Would you briefly describe your professional experience?**

20 A6. I have 5 years of petroleum industry experience, all at Chesapeake. Over that time,
21 I worked plays in the mid-continent region and the Appalachian Basin in the United
22 States. I worked as an operations geologist, of which duties included well planning
23 and monitoring horizontal drilling of the Des Moines Granite Wash, Hogshooter,
24 Tonkawa, Cleveland and Woodford Formations in Oklahoma and Texas. I created
25 geological maps and provided prospect evaluations for the Des Moines Granite
26 Wash, Tonkawa and Woodford Shale in Oklahoma. I currently work as an
27 operations geologist with a focus on the development of Chesapeake's Utica Shale
28 assets in Ohio.

29 **Q7. Are you a member of any professional associations?**

30 A7. Yes. I am an active member of the American Association of Petroleum Geologists,

1 Ohio Geological Society, Oklahoma City Geological Society and Oklahoma
2 Energy Explorers.

3 **Q8. Are you familiar with Chesapeake Exploration, L.L.C.'s Application for Unit**
4 **Operations with respect to the Delmar South Unit?**

5 A8. Yes.

6 **Q9. Could you please describe the Delmar South Unit, in terms of its general**
7 **location, surface acreage, and subsurface depth?**

8 A9. The Delmar South Unit consists of two-hundred-thirty-six (236) separate tracts of
9 land totaling approximately 243.519194 acres in southern Carroll County, Ohio.
10 Exhibit TG-1 to the Application shows the geographical location of the proposed
11 unit in Carroll County and in relation to the surrounding counties. The Unitized
12 Formation described in the Application is the subsurface portion of the Delmar
13 South Unit at a depth located from 50' above the top of the Utica Shale, to 50'
14 below the base of the Point Pleasant formation.

15 **UNITIZED FORMATION IS PART OF A POOL.**

16 **Q10. In geological terms, what does "pool" mean in connection with unitization?**

17 A10. A pool is generally understood to be a common source of supply in pores of a rock
18 that yields hydrocarbons on drilling.

19 **Q11. Ohio Revised Code § 1509.01(E) defines the term "pool" as follows: "Pool"**
20 **means an underground reservoir containing a common accumulation of oil or**
21 **gas, or both, but does not include a gas storage reservoir. Each zone of a**
22 **geological structure that is completely separated from any other zone in the**
23 **same structure may contain a separate pool." Does this definition of "pool"**
24 **apply to the Delmar South Unit?**

25 A11. Yes. As part of a larger hydrocarbon pool, an equal accumulation of hydrocarbons
26 are expected to be in place throughout the Delmar South Unit. Furthermore, the
27 hydrocarbon pool would extend beyond the currently defined unit in each direction,
28 North, South, East, and West. Interpretation of data indicates that the Utica
29 formation has consistent characteristics across the Delmar South Unit. Geological
30 mapping suggests that the Unitized Formation constitutes a common source of
31 supply, meaning any portion of the Delmar South Unit would be geologically

1 equivalent to another portion of the Delmar South Unit. Stated another way, the
2 formation shows very similar traits from one well location to the next, which
3 suggests the production is likely to be similar from all wells drilled in the unit.
4 Therefore, the Unitized Formation qualifies as part of a pool.

5 **Q12. Generally speaking, what sources of data would you review and analyze in**
6 **order to assess the geologic characteristics of a potential shale play?**

7 A12. Wireline well log data and core data. Both public and proprietary logs are analyzed
8 by Chesapeake Energy petrophysicists and geologists. Cores are analyzed by
9 scientists at the Chesapeake Reservoir Technology Center.

10 **Q13. How is this data obtained, and what is it meant to show about the formation?**

11 A13. Chesapeake geologists have used public well logs and recently drilled Chesapeake
12 Energy well logs to pick rock formation tops across the basin. After picking
13 formation tops, such as the Queenston Shale, Utica Shale, Point Pleasant Shale, and
14 Trenton Limestone, maps are made to show the thickness of each formation across
15 Ohio. This mapping indicates equal thickness of the Utica and Point Pleasant
16 shales over the Delmar South Unit. The industry jargon has come to call this entire
17 interval the “Utica Formation”, and in our testimony we will often adopt this
18 naming convention.

19 **Q14. What data sources did you use in determining the geologic features of the**
20 **Delmar South Unit?**

21 A14. Wireline well log data and Gamma Ray data, which we used to compile Exhibits
22 TG-1 and TG-2 to the Application for Unit Operation.

23 **Q15. What do these exhibits tell us about the Delmar South Unit?**

24 A15. Exhibits TG-1 and TG-2 are a map and cross section that show wireline well logs.
25 The logs are annotated with formation names. The cross section offsetting the
26 Delmar South Unit suggests approximately equal thickness of the Utica formation,
27 including the Point Pleasant Shale. The three-well cross section displays wireline
28 Gamma Ray data on a 0-200 API scale, Resistivity data on a 0.2-2,000 OHMM
29 scale, and Bulk Density data on a 2.00-3.00 g/cm³ scale. As shown on Exhibit TG-
30 1, one of the three wells is located approximately 8 miles northwest of the Delmar
31 South Unit pad site, one well is approximately 6 miles northeast of the Delmar

1 South Unit pad site, and the other well is approximately 2 miles southeast of the
2 pad site. Interpreted formation tops based on Gamma Ray, Resistivity and Bulk
3 Density electric log curves are shown on the cross section in Exhibit TG-2.
4 Because of the location of the three evaluation wells and uniformity of the log data
5 across the three wells, as displayed on the cross section, the log data indicates that
6 the Utica Shale is predicted to have similar characteristics and be of uniform
7 thickness across the Delmar South Unit.

8 **Q16. What is the approximate depth of the Utica/Point Pleasant formation under**
9 **the Delmar South Unit?**

10 A16. The top of the Utica formation is expected around 7,308 feet True Vertical Depth.

11 **Q17. Which formations are included in the proposed Delmar South Unit?**

12 A17. The Unitized Formation described in the Application is the subsurface portion of
13 the Delmar South Unit at a depth located from 50' above the top of the Utica Shale
14 to 50' below the base of the Point Pleasant formation.

15 **Q18. How and why were these formations chosen?**

16 A18. Chesapeake Engineers' fracture models, derived from the measured rock properties
17 obtained from well logs and core data, suggest fractures are contained 50' above
18 the top of the Utica Shale and 50' below the top of the Trenton Limestone.

19 **Q19. Based on the data you analyzed, should the area be considered a pool?**

20 A19. Yes, it is part of a pool.

21 **Q20. Could you please explain why?**

22 A20. Well log analysis and mapping based on core data indicates that reservoir
23 characteristics are very similar over a unit area for the Utica/Point Pleasant
24 formations. Formation thickness, saturation, and porosity should be roughly
25 equivalent across the formation. Geologically, this would qualify the area being
26 considered as part of a pool.

27 **ALLOCATION METHODOLOGY**

28 **Q21. Are you generally familiar with the manner in which unit plans allocate**
29 **production and unit expenses to parcels within the unit?**

30 A21. Yes.

1 **Q22. You testified earlier that the Utica/Point Pleasant formation underlying the**
2 **Delmar South Unit has a relatively uniform thickness and reservoir quality.**
3 **Given those characteristics, what would be an appropriate method of**
4 **allocating production and unit expenses among the parcels contained in the**
5 **Delmar South Unit?**

6 A22. An appropriate method of allocation would be on a surface-acreage basis. The
7 formation thickness and reservoir quality of the Utica formation is expected to be
8 consistent across the unit. I do not expect any substantial variations across the
9 proposed unit. Therefore, there is no geological reason to allocate by a method
10 other than on a surface-acreage basis.

11 **Q23. Is this method used elsewhere?**

12 A23. Yes. In fact, this method is employed in Ohio's pooling statute.

13 **Q24. What method of allocation is utilized in the unit plan for the Delmar South**
14 **Unit?**

15 A24. Based on the testimony of Eric Hensley attached to the Application, the method of
16 allocation utilized is on a surface-acreage basis.

17 **Q25. Does this conclude your testimony?**

18 A25. Yes.

Exhibit "TG-1"

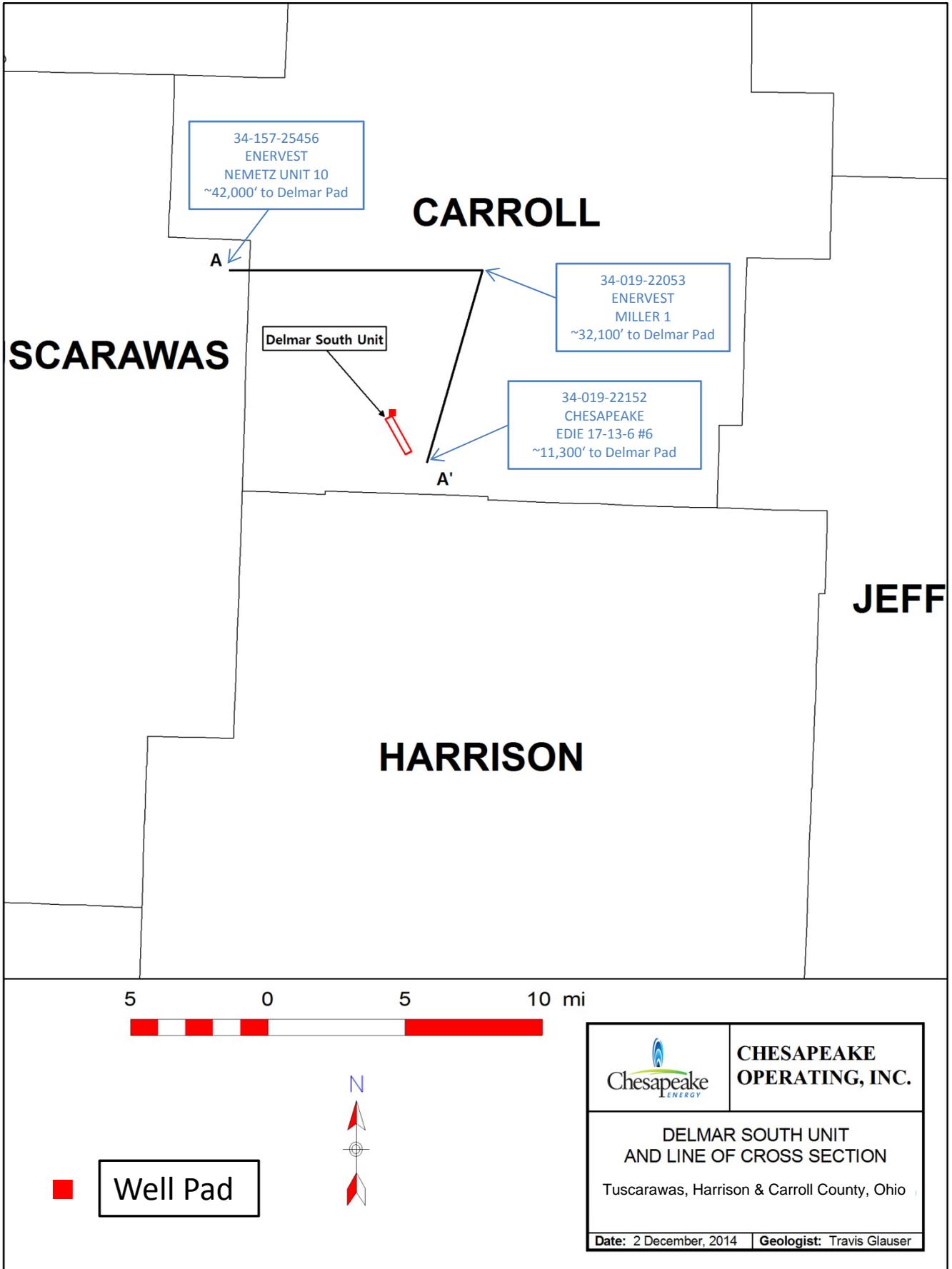


Exhibit "TG-2"

Delmar South Unit Offset Cross Section Gamma Ray Logs (0-200 API) Resistivity Logs (0.2 – 2000 OHMM) Bulk Density (2.00-3.00 g/cm³)

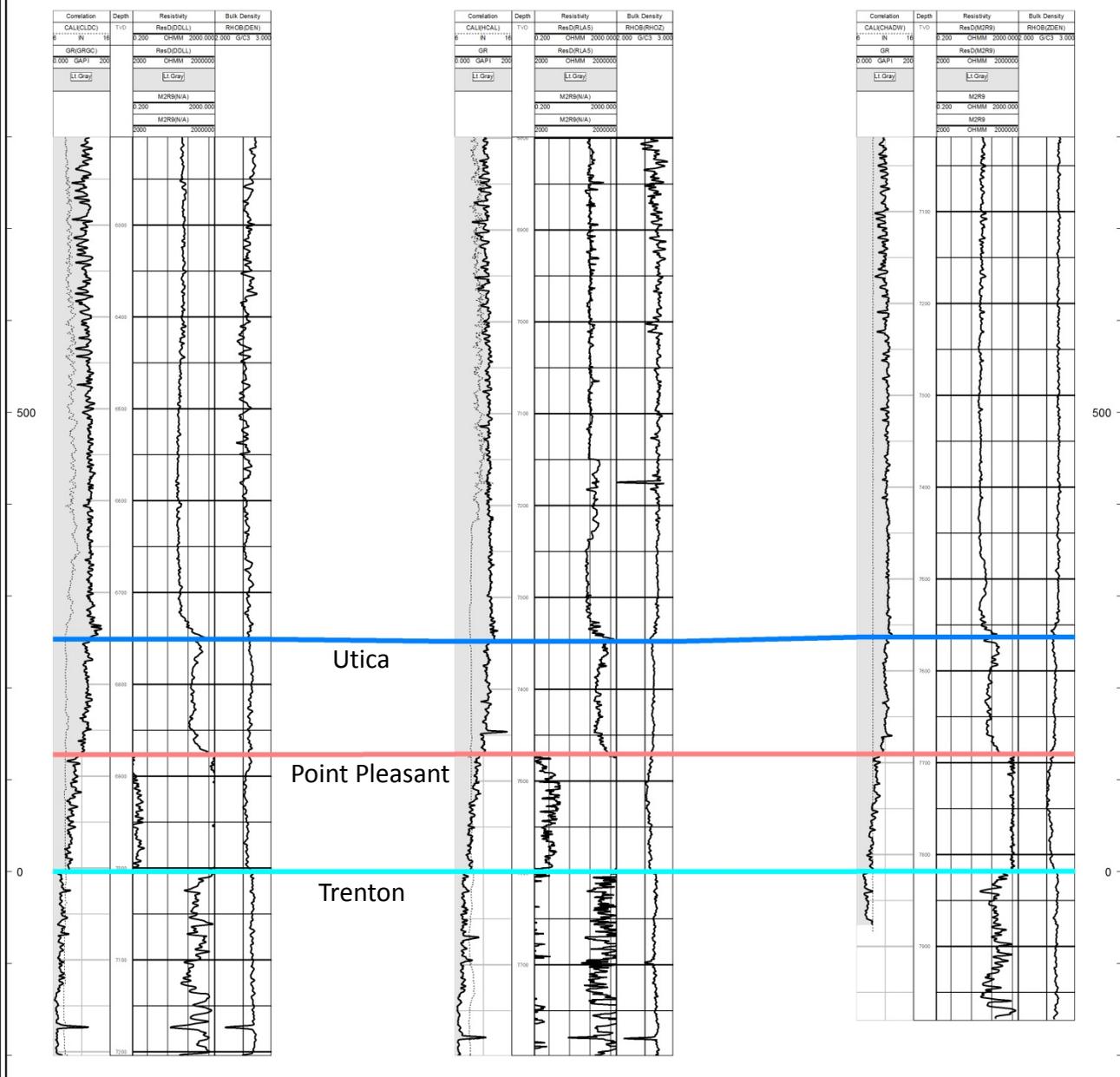
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ENERVEST OPERATING LLC
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**STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT**

In re the Matter of the Application of :
Chesapeake Exploration, L.L.C., for :
Unit Operation : Application Date: December 16, 2014
: Revised Date: February 20, 2015
Delmar South Unit :

**PREPARED TESTIMONY OF ERIC HENSLEY
ON BEHALF OF CHESAPEAKE EXPLORATION, L.L.C.**

R. Neal Pierce (0028379)
Katerina E. Milenkovski (0063314)
STEPTOE & JOHNSON PLLC
Huntington Center
41 South High Street, Suite 2200
Columbus, Ohio 43215

Attorneys for Applicant,
Chesapeake Exploration, L.L.C.

Date: December 16, 2014

PREPARED DIRECT TESTIMONY OF ERIC HENSLEY

1 **INTRODUCTION.**

2 **Q1. Please state your name and business address.**

3 A1. My name is Eric Hensley and my business address is 6100 N. Western Avenue,
4 Oklahoma City, Oklahoma 73154-0496.

5 **Q2. Who is your employer?**

6 A2. Chesapeake Energy Corporation.

7 **Q3. What is your position with Chesapeake?**

8 A3. My official title at Chesapeake Energy Corporation is Landman II.

9 **Q4. Please describe your professional responsibilities at Chesapeake.**

10 A4. I am responsible for assisting with our oil and gas development program in eastern
11 Ohio. Importantly, as a portion of my responsibilities, I am overseeing our
12 unitization efforts in Ohio by identifying appropriate candidates and compiling
13 unitization applications for same.

14 **Q5. Starting with college, please describe your educational background.**

15 A5. I hold a Master of Business Administration from Texas State University and a
16 Bachelor of Science from Oklahoma State University.

17 **Q6. Please briefly describe your professional experience.**

18 A6. I have been employed by Chesapeake Energy since January 2011. I am currently an
19 in-house Landman assigned to Chesapeake’s Appalachia South Business unit,
20 operating and developing Chesapeake’s Utica Shale assets in Carroll County, Ohio.
21 Additionally, I have worked as a Field Landman in Chesapeake’s Uniontown, Ohio
22 field office, negotiating and acquiring oil and gas leases in the Utica and Marcellus
23 Shale plays.

24 **Q7. What did you do as an in-house landman?**

25 A7. An in-house landman basically engages in what can be considered “prospect
26 building.” After our geology department identifies a play, an in-house landman
27 helps execute the company’s leasing and development efforts in a particular area.
28 During my time as an in-house landman working in Chesapeake’s Appalachia
29 South Business unit I have been assigned various geographic areas of the Utica
30 Shale paly (mainly Carroll, Harrison, and Jefferson Counties of Eastern Ohio) to

1 facilitate development of the play through lease acquisitions and negotiations, joint
2 operations negotiations, title review, unit formation, wellbore planning, various
3 permitting activities at local and state levels, drilling wells, and other related
4 operational activities.

5 **Q8. Are you a member of any professional associations?**

6 A8. Yes. The American Association of Professional Landmen and the Oklahoma City
7 Association of Professional Landmen

8 **Q9. Were you involved in the preparation of Chesapeake Exploration, L.L.C.'s**
9 **Application for unitization with respect to the Delmar South Unit?**

10 A9. Yes. I also am familiar with the efforts made by Chesapeake to put the Delmar
11 South Unit together and the Unit Plan that Chesapeake is proposing.

12 **Q10. Can you generally describe the Delmar South Unit?**

13 A10. Yes. The Delmar South Unit consists of two-hundred and thirty-six (236) separate
14 tracts of land totaling approximately 243.519194 acres in Carroll County, Ohio.

15 **EFFORTS MADE BY CHESAPEAKE TO LEASE UNIT TRACTS.**

16 **Q11. The Application submitted by Chesapeake indicates that it owns the oil and**
17 **gas rights to 237.825110 acres of the proposed 243.519194-acre unit. Would**
18 **you describe how Chesapeake acquired its rights?**

19 A11. Chesapeake acquired its working interest in this unit through acquisitions and a
20 ground floor leasing effort. In the leasing effort, Chesapeake assigned field title
21 and leasing agents to research the county records for a specific area and then secure
22 oil and gas leases with the relevant mineral owners for those particular tracts.

23 **Q12. What percentage of the total acreage of the Delmar South Unit is represented**
24 **by the oil and gas rights held by Chesapeake and EnerVest?**

25 A12. Approximately 97.54668%, with Chesapeake holding 91.38769% and EnerVest
26 holding 6.15899% of the acreage in the Delmar South Unit.

27 **Q13. Why was Chesapeake not able to acquire the oil and gas rights to all of the**
28 **acreage in the proposed unit?**

29 A13. There are twenty-one (21) unleased tracts owned by six (6) landowners (Unit Tracts
30 12-16, 30, 40-41, 87, 98, 135-136, 157, 165-168, 204-206, and 224) in the Delmar
31 South Unit. The landowners have decided not to lease for their own reasons.

1 **Q14. Have you prepared affidavits detailing Chesapeake's efforts to obtain a lease**
2 **from the unleased mineral owners in the proposed unit?**

3 A14. Yes. As just discussed, Exhibit EH-1 contains six (6) affidavits which identifies
4 lease efforts which were made with the unleased mineral owners.

5 **Q15. If the unleased tract owners in the unit were to ask to lease with Chesapeake,**
6 **would Chesapeake be likely to agree?**

7 A15. Absolutely, as Chesapeake has demonstrated on a number of occasions with its
8 previous unitization applications.

9 **Q16. Could you describe the location of the leased and unleased tracts within the**
10 **Delmar South Unit?**

11 A16. Yes. Exhibit EH-2, which is attached to my testimony, is a colored plat showing
12 each of the tracts in the Delmar South Unit, along with the wellbores in same. The
13 tracts in yellow indicate that Chesapeake has acquired the necessary mineral
14 interests for those particular tracts. The tracts in red indicate that those tracts are
15 still open and unleased for purposes of putting this unit together. Further, the green
16 and olive portions of Exhibit EH-3 depict the approximate 195-acre area of
17 leasehold that is currently stranded from development due to the aforementioned
18 unleased tracts within the Delmar South Unit.

19 **UNIT PLAN PROVISIONS.**

20 **Q17. Would you describe generally the development plan for the Delmar South**
21 **Unit?**

22 A17. Chesapeake plans to develop the Delmar South Unit from a pad site located along
23 the northern boundary of the Unit, which would facilitate drilling multiple
24 horizontal wells in the Delmar South Unit and the offsetting Delmar North unit.
25 The Unit is configured to accommodate one wellbore, with a projected lateral
26 length of 7,473 feet. This wellbore will be drilled to the southeast from the
27 aforementioned pad site. Anecdotally, three additional horizontal wellbores will be
28 drilled from this surface location to the northwest into the directly adjacent Delmar
29 North Unit. If an Order is granted for this application, and depending upon rig
30 availability and other logistical considerations, Chesapeake intends to drill the
31 Delmar South well in 3Q or 4Q 2015.

1 **Q18. Can you describe the location of the proposed wellbores within the Delmar**
2 **South Unit?**

3 A18. Yes, the above-referenced Exhibit EH-2 depicts the configuration I just mentioned.
4 As you can see, it illustrates that we anticipate locating a well pad along the
5 northern boundary of the Delmar South Unit, and then drilling one well to the
6 southeast in the Unit Area. Using one centrally located pad site to drill four
7 wellbores, one Delmar South well and three Delmar North wells, minimizes surface
8 disturbance in the region by fully developing two units and the collective four
9 horizontal laterals from only one surface location. I have also attached to my
10 testimony an aerial map illustrating the pad location, identified as Exhibit EH-4.

11 **Q19. Do you know with certainty today where the drilling and completion equip-**
12 **ment will be located on the pad?**

13 A19. We have negotiated surface rights with a leased party for the area indicated on Ex-
14 hibit EH-4. A surface use agreement has been agreed upon and signed between the
15 surface owner and Chesapeake. Chesapeake has built the Delmar pad location. All
16 unleased parcels are located from over 1,500 feet from the surface location.

17 **Q20. What are the benefits to this type of unit development?**

18 A20. Developing the Delmar South Unit in the manner previously described not only
19 protects the correlative rights of the unit participants, but has substantial economic
20 and environmental benefits as well. Drilling, completing and producing multiple
21 wells from a single surface location significantly reduces the impact on the surface.
22 Only one access road is constructed instead of several, the need for separate tank
23 batteries at multiple locations is eliminated, traffic to and from the area is
24 significantly reduced, and it allows development of acreage that might not
25 otherwise be developed with traditional drilling methods due to surface limitations,
26 such as local water features and residential and commercial activities. There is a
27 significant amount of acreage in eastern Ohio, where operators like Chesapeake
28 believe the Utica formation is prospective. Development through vertical wells
29 would not be practicable for two reasons: (1) because unconventional reservoirs
30 cannot be produced at economic flow rates or volumes with vertical drilling (as
31 described by Andrew Hopson); and (2) because vertical wells, even if they were

1 practical, require numerous surface locations spaced at consistent intervals, which
2 become impractical in areas where the surface is already occupied with other uses
3 (such as residential and commercial activities, existing surface waters, and,
4 occasionally, timber activities). In contrast, horizontal drilling is expected to be
5 both economically practical and physically viable, since it allows operators to
6 locate surface operations on strategically located properties, which can serve as
7 centralized access points used to develop mineral acreage underlying otherwise
8 inaccessible lands.

9 **Q21. So is it fair to say that the benefits of this type of development are substantial?**

10 A21. Yes, the type of development planned by Chesapeake for the Delmar South Unit
11 offers significant benefits not only to the operator, but also to the landowners in the
12 unit and the surrounding area.

13 **Q22. Are you familiar with the Unit Plan proposed by Chesapeake for the Delmar
14 South Unit?**

15 A22. Yes. The Unit Plan proposed by Chesapeake is set out in two documents attached
16 to the Application – the Unit Agreement, which establishes the non-operating
17 relationship between the parties in the unit; and a Unit Operating Agreement and
18 related exhibits, which establish how the unit is going to be explored, developed,
19 and produced.

20 **Q23. Let's turn first to the Unit Agreement, marked as Exhibit 1 to the Application.
21 Would you describe briefly what it does?**

22 A23. Yes. The Unit Agreement in effect combines the oil and gas rights in the Delmar
23 South Unit so that they can be uniformly developed as if they were part of a single
24 oil and gas lease.

25 **Q24. Are mineral rights to all geological formations combined under the Unit
26 Agreement?**

27 A24. No. The Unit Agreement only unitizes the oil and gas rights located fifty feet
28 above the top of the Utica Shale to fifty feet below the base of the Point Pleasant
29 formation, defined in the Agreement as the "Unitized Formation," to allow
30 development of the Utica Shale formation.

31 **Q25. How will production proceeds from the Delmar South Unit be allocated among**

1 **royalty interest owners and working interest owners in the Unit?**

2 A25. On a surface-acreage basis. Under Article 4 of the Unit Agreement, every tract is
3 assigned a tract participation percentage based on surface acreage and shown on
4 Exhibit A-2 to the Unit Operating Agreement. Article 5 of the Unit Agreement
5 allocates production based on that tract participation.

6 **Q26. Why use a surface-acreage basis as the method of allocation?**

7 A26. Based on the testimony of Travis Glouser attached to the Application as Exhibit 3,
8 a surface-acreage basis is an appropriate method of allocation because the
9 formation thickness and reservoir quality of the Utica formation is expected to be
10 consistent across the unit.

11 **Q27. Would you go through an example from Exhibit A-2 to the Unit Operating**
12 **Agreement to illustrate how a surface-acreage basis would be applied to the**
13 **Delmar South Unit?**

14 A27. Yes. If you look at the fifth column on Exhibit A-2 to the Unit Operating
15 Agreement entitled "Surface Acres in Unit," it shows the number of surface acres
16 in each tract of land within the Delmar South Unit. Column 6 on Exhibit A-2
17 shows the related tract participation of each tract, which is calculated by taking the
18 total number of surface acres in the tract and dividing it by the total number of
19 surface acres in the unit. So, for example, if you look at Tract Number 11 on page
20 1 of Exhibit A-2, it shows that this particular James E. and Dorothy A. Butler tract
21 comprises 5.61673849 surface acres in the 243.519194 acre Delmar South Unit,
22 which equates to a tract participation of approximately 2.306487% ($5.61673849 \div$
23 243.519194).

24 **Q28. What does that mean in terms of production allocated to that particular**
25 **Butler tract?**

26 A28. It would mean this particular Butler tract would have allocated to it roughly
27 2.306487% of all production from the Delmar South Unit, which would then be
28 distributed based on the terms of the lease or other relevant document affecting
29 ownership to production proceeds from the tract.

1 **Q29. Does it work the same way for an unleased mineral interest, that is, for the**
2 **tract of a person or entity which did not lease its property in the unit?**

3 A29. Yes. If you take a look at Exhibit A-3 to the Unit Operating Agreement, you will
4 see that it lists, among other things, the surface acreage, tract participation and
5 related working interest and unit participations of each unleased parcel in the
6 proposed unit. In the two-hundred and thirty-six tract Delmar South Unit, Tracts
7 12-16, 30, 40-41, 87, 98, 135-136, 157, 165-168, 204-206, and 224 are the twenty-
8 one unleased parcels in the unit area. The minerals under these tracts are currently
9 owned by six landowners, and comprise 5.694087 acres. If the total unleased
10 acreage is divided by the full surface acreage comprising the unit (243.519194
11 acres), the result gives a tract participation of approximately 2.3382%. Under the
12 Unit Agreement, should the landowners affirmatively select the non-consenting
13 working interest option if one is provided for in the Order, the landowners would
14 receive a 7/8 working interest and a 1/8 royalty interest on its respective tract
15 participation. The landowner's royalties would be calculated on the net proceeds
16 received by Chesapeake at the well in accordance with the royalty provision
17 contained in Exhibit B to the Unit Operating Agreement and rulings in the majority
18 of gas producing jurisdictions that royalty owners are responsible for their
19 proportionate share of post-production expenses. Allowing deduction of post-
20 production expenses for purposes of royalty calculation provides incentive to
21 producers to add value to their product by post-production treatment and
22 transportation. If producers are not allowed to deduct a proportionate share of
23 royalty owners' post-production expenses that enhance the value of the product, an
24 economic loss to all parties results and the incentive to generate additional value
25 disappears because producers are required to pay for *all* post-production expenses,
26 and also surrender one-eighth of the final proceeds received.

27 **Q30. In your experience, is that a customary way to allocate production in a unit?**

28 A30. In my experience, surface-acreage allocation is both fair and customary for
29 horizontal shale development.

30 **Q31. How are unit expenses allocated?**

31 A31. Like production in the unit, unit expenses are allocated generally on a surface-

1 acreage basis. Article 3 of the Unit Agreement provides that expenses, unless
2 otherwise allocated in the Unit Operating Agreement, will be allocated to each tract
3 of land within the unit in the proportion that the surface acres of each tract bears to
4 the surface acres of the entire unit.

5 **Q32. Who pays the unit expenses?**

6 A32. Working interest owners.

7 **Q33. Do the royalty owners pay any part of the unit expenses?**

8 A33. No. Royalty interest owners are responsible only for their proportionate share of
9 taxes and post-production costs, payable only from their share of the proceeds from
10 sales of production from the unit area.

11 **Q34. Let's turn to the Unit Operating Agreement, marked as Exhibit 2 to the**
12 **Application. It appears to be based upon a form document. Could you please**
13 **identify that form document?**

14 A34. Yes. The Unit Operating Agreement is based upon *A.A.P.L. Form 610 – Model*
15 *Form Operating Agreement – 1989*. We typically use a modified version of that
16 form agreement when we enter into joint operating agreements with other parties.

17 **Q35. Are you familiar with the custom and usage of the Form 610 and other similar**
18 **agreements in the industry?**

19 A35. Yes. The Form 610, together with its exhibits, is a commonly used form in the
20 industry and is frequently modified to fit the needs of the parties and
21 circumstances. As a landman, many of my professional endeavors have involved
22 negotiating and modifying versions of A.A.P.L. operating agreements.

23 **Q36. Turning to the Unit Operating Agreement in particular, does it address how**
24 **unit expenses are determined and paid?**

25 A36. Yes. Article III of the Unit Operating Agreement provides that all costs and
26 liabilities incurred in operations shall be borne and paid proportionately by the
27 working interest owners, according to their Unit Participation percentages. Those
28 percentages can be found in Exhibits A-2 and A-3 to the Unit Operating
29 Agreement. Moreover, the Unit Operating Agreement has attached to it an
30 accounting procedure identified as Exhibit C.

31 **Q37. What is the purpose of the document marked Exhibit C in connection with the**

1 **Delmar South Unit?**

2 A37. The document provides greater details regarding how unit expenses are determined
3 and paid.

4 **Q38. At the top of each page of Exhibit C, there appears a label that reads:**
5 **“COPAS 1984 ONSHORE Recommended by the Council of Petroleum**
6 **Accountants Societies.” Are you familiar with this society?**

7 A38. Yes, COPAS stands for the Council of Petroleum Accountants Societies.

8 **Q39. Is this COPAS document used in oil and gas operations across the country?**

9 A39. Yes. This form is commonly used in the industry.

10 **Q40. In your opinion, is this COPAS document generally accepted in the industry?**

11 A40. Yes. Drafted by an organization that includes members from many different
12 companies in diverse sections of the industry, it was designed to be generally fair to
13 the parties. Chesapeake, in fact, is frequently subject to the COPAS in its
14 operations with other producers.

15 **Q41. Will there be in-kind contributions made by owners in the unit area for unit**
16 **operations, such as contributions of equipment?**

17 A41. No, Chesapeake Energy does not anticipate in-kind contributions for the Unit Op-
18 erations.

19 **Q42. Are there times when a working interest owner in the unit chooses not to – or**
20 **cannot – pay their allocated share of the unit expenses?**

21 A42. Yes, such a situation is not uncommon in the industry. Joint operating agreements
22 contemplate that there will be times when less than all of the working interest
23 owners choose to participate in operations on the Contract Area. The agreements
24 are drafted to allow the parties flexibility. That includes flexibility for one or more
25 working interest owners to decline to participate in an operation that they may not
26 believe will be a profitable venture or one that they cannot afford, as well as
27 flexibility for the remaining parties to proceed with such operation at their own risk
28 and expense if they wish to do so.

29 **Q43. Generally, how is the working interest accounted for when an owner chooses**
30 **not to participate in an operation?**

31 A43. A working interest owner who cannot or chooses not to participate is considered a

1 non-consenting party. If the remaining working interest owners decide to proceed
2 with an operation, then the consenting parties bear the full costs and expenses of
3 that operation. A non-consenting party is deemed to have relinquished its interest
4 in that operation until such time as the well pays out the costs that would have been
5 payable by that party, plus some sort of risk factor, sometimes called a risk penalty
6 or non-consent penalty.

7 **Q44. What is a risk penalty or non-consent penalty, and why are they included in**
8 **the agreement?**

9 A44. A risk penalty or non-consent penalty is a mechanism which recognizes that in
10 instances when a working interest owner chooses not to agree in advance to pay its
11 share of the costs of drilling a well, the other working interest owners should be
12 compensated for the financial risks they undertake in paying the costs of drilling a
13 well considering that the well may be a non-producer. Additionally, a non-consent
14 penalty can serve as a means to allow a working interest owner to finance
15 participation in a well when unable to advance its share of drilling costs.

16 **Q45. Can a working interest owner choose to go non-consent in the initial well in**
17 **the Delmar South Unit?**

18 A45. Yes. If a working interest owner fails to participate in the unit's initial well, Article
19 VI.A of the Unit Operating Agreement provides that the working interest owner
20 shall be deemed to have relinquished to the other parties its working interest in the
21 unit with a back-in provision that includes a risk factor of 200%.

22 **Q46. Does the Unit Operating Agreement treat the initial well and subsequent**
23 **operations differently in terms of going non-consent, and if so, why?**

24 A46. Yes, subsequent operations have a smaller risk factor of 150%. It's typically much
25 riskier to participate in the initial well in a unit because, as here, you frequently
26 don't have enough information to determine whether the well will be productive
27 and economic. As a consequence, to prevent parties from gaming the system and
28 avoiding the substantial risks associated with the drilling of the initial well, while
29 still being able to participate in subsequent operations when the risks are
30 substantially reduced, it is common for joint operating agreements to distinguish
31 between these types of operations.

1 **Q47. But if the working interest owner still has a royalty interest in the unit, that**
2 **royalty interest would remain in place and be paid?**

3 A47. Yes. The royalty interest would still be paid even if the working interest is being
4 used to pay off a risk factor.

5 **Q48. What is the risk factor for subsequent operations set out in the Unit Operating**
6 **Agreement?**

7 A48. 150%, as is set out in Article VI.B of the Unit Operating Agreement.

8 **Q49. Are the percentages included in the Unit Operating Agreement unusual?**

9 A49. Actually, yes, these risk penalties are quite a bit lower than what Chesapeake
10 typically utilizes in its joint operating agreements used in horizontal drilling
11 programs. While Chesapeake and its peers in the industry are optimistic about
12 development of the Utica and other shale formations, the projects proposed are
13 significant capital investments (often exceeding \$7,000,000 per well to plan, drill
14 and complete). In addition, unconventional plays like the Utica are not simple,
15 homogeneous plays. Within the boundaries of the play (here, the Utica Shale
16 generally), there are likely to be areas of uneven geological performance.
17 Therefore, given the inherent risks and significant capital outlays, it is common for
18 companies to incorporate a higher risk factor in their joint operating agreements.

19 **Q50. Have you seen risk factor levels of 200% to 150% in other parts of the country**
20 **that you've worked in and are familiar with?**

21 A50. Typically, we will see see risk factor levels at significantly higher rates than these
22 due to the uncertainties and costs involved in horizontal development.
23 Additionally, courts in other jurisdictions have determined that higher non-consent
24 penalties than these were reasonable.

25 **Q51. How are decisions made regarding unit operations?**

26 A51. Article V of the Unit Operating Agreement designates Chesapeake Exploration,
27 L.L.C., as the Unit Operator, with full operational authority for the supervision and
28 conduct of operations in the unit. Additionally, except where otherwise provided,
29 Article XVI of the Unit Operating Agreement states that any decision,
30 determination or action to be taken by the unit participants shall be based on a
31 voting procedure in which each unit participant has a vote that corresponds in value

1 to that participant's allocated responsibility for the payment of unit expenses.

2 **Q52. I believe you've already described generally the documents in Exhibits A and**
3 **C to the Unit Operating Agreement. Let's turn therefore to Exhibit B of the**
4 **Unit Operating Agreement. What is it?**

5 A52. Exhibit B is a standard oil and gas lease form that is attached to the joint operating
6 agreement to govern any unleased interests owned by the parties. Article III.A of
7 the Unit Operating Agreement provides that if any party owns or acquires an oil
8 and gas interest in the Contract Area, then that interest shall be treated for all
9 purposes of the Unit Operating Agreement as if it were covered by the form of
10 lease attached as Exhibit B.

11 **Q53. Does this oil and gas lease contain standard provisions that Chesapeake uses in**
12 **connection with its drilling operations in Ohio and elsewhere?**

13 A53. Yes.

14 **Q54. Moving on to Exhibit D of the Unit Operating Agreement, would you describe**
15 **what it is?**

16 A54. Yes, Exhibit D is the insurance exhibit to the joint operating agreement. It sets
17 forth coverage amounts and limitations, and the insurance terms for operations
18 conducted under the Unit Operating Agreement. It requires the operator, to obtain
19 General Liability coverage, including bodily injury and property damage liability,
20 in an amount of five million dollars, which is substantially similar to those
21 employed in connection with Chesapeake's other unitized projects in the State of
22 Ohio.

23 **Q55. Would you next describe Exhibit E of the Unit Operating Agreement?**

24 A55. Yes. Exhibit E is the Gas Balancing Agreement, which further details the rights
25 and obligations of working interest parties with respect to marketing and selling
26 any production from the Contract Area. It would normally not come in to play with
27 an unleased landowner, but only with a working interest owner who desired to
28 market their share of production separately from the Operator.

1 **Q56. Has Chesapeake documented which of the working interest owners included**
2 **within the Delmar South Unit have given their consent to the proposed**
3 **unitization?**

4 A56. Yes. Exhibit 6 to the Application documents the approvals for the Unit Plan
5 received from working interest owners included within the Delmar South Unit, up
6 to the time that the Application was filed. Exhibit 6 gives the approval of working
7 interest owners approving the Unit Plan; currently, those being Chesapeake
8 Exploration as owner of 91.38769%, and EnerVest as owner of 6.15899%

9 **Q57. Does the Application contain a list of the fee interest owner and mineral**
10 **reservation holders who have not previously agreed to enter into any oil and**
11 **gas lease with respect to the tracts they own, or possibly own, within the**
12 **Delmar South Unit?**

13 A57. Yes. Exhibit A-3 to the Unit Operating Agreement lists the “unitized parties,” that
14 is, the fee interest owner and mineral reservation holders who have not leased their
15 mineral interests to any party. For notice purposes, the proper addresses for these
16 unleased parties are listed on Exhibit A-3 as well.

17 **Q58. In your professional opinion, given your education and experience, are unit**
18 **operations for the proposed Delmar South Unit reasonably necessary to**
19 **increase substantially the ultimate recovery of oil and gas?**

20 A58. Yes. Unit operations for the proposed Delmar South Unit are reasonably necessary
21 to increase substantially the ultimate recovery of oil and gas. As testified by my
22 colleagues Mr. Hopson and Mr. Glouser, unit operations will promote a rational
23 and efficient development of the Utica formation underlying the Delmar South
24 Unit. In addition, as a land professional I am supportive of any efforts to reduce
25 waste by minimizing the number of wells and surface locations utilized for drilling
26 operations. Based on my experience I understand that land is a valuable
27 commodity and that horizontal drilling is an excellent way to accommodate both
28 the rights of the mineral owner and the rights of the surface owner to accomplish
29 reasonable development.

30 **Q59. Does this conclude your testimony?**

31 A59. Yes.

EXHIBIT "EH-1"

AFFIDAVIT OF EFFORTS TO LEASE WILLIAM C. ANDRESCAVAGE

STATE OF OHIO)
) SS
COUNTY OF CARROLL)

Tax Parcels # 25-0001208.000, 25-0001209.000, 25-0001210.000
25-0001040.000, 25-0001039.000,

Township of Orange

Section 24, Township 13N, Range 6W

The undersigned, being first duly sworn according to the law, makes this Affidavit and deposes and says that:

1. Affiant, Eric Hensley, is employed by Chesapeake Energy Corporation ("Chesapeake") as a Landman. Affiant's job responsibilities include the acquisition of leases, and facilitation of same, in certain areas of Ohio, including Carroll County, Ohio. 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.
2. The oil and gas interests in the above-referenced parcels of land are owned by William C. Andrescavage, a single man ("Mineral Owner"), and are currently unleased. Affiant has personal knowledge of the efforts by Chesapeake and its independent contractors to lease the above referenced parcels of land from Mineral Owner. Those efforts are described as follows.
3. On November 4, 2011, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone. A letter with an offer to lease was sent to an address of record for William C. Andrescavage.
4. On May 8, 2012, an independent contractor of Chesapeake Energy sent a letter with an offer to lease to an address of record for William C. Andrescavage.
5. On July 23, 2012, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
6. On August 22, 2012, an independent contractor of Chesapeake Energy attempted to contact the Mineral via telephone.
7. On August 29, 2012, an independent contractor of Chesapeake Energy sent a letter with an offer to lease to an address of record for William C. Andrescavage.
8. On September 12, 2012, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
9. On October 19, 2012, an employee of Chesapeake Energy mailed a letter with an offer to lease to an address of record for William C. Andrescavage.
10. On November 27, 2012, an employee of Chesapeake Energy attempted to contact the Mineral Owner via telephone.

EXHIBIT "EH-1"

11. On December 14, 2012, an employee of Chesapeake Energy mailed a certified letter with an offer to lease to an address of record for William C. Andrescavage. Receipt of delivery signed by William Andrescavage was received on January 2, 2013.
12. On November 21, 2013, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
13. On December 9, 2013, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
14. On December 30, 2013, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
15. On January 20, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
16. On February 4, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via certified mail. Said letter was returned undelivered on March 10, 2014 after five delivery attempts. No forwarding address was provided.
17. On March 17, 2014, an independent contractor of Chesapeake Energy attempted to make contact with the Mineral Owner via certified mail. Said letter was returned on April 15, 2014.
18. On April 21, 2014, an independent contractor of Chesapeake Energy sent a letter with an offer to lease to an address of record for William C. Andrescavage.
19. On May 20, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
20. On May 28, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
21. On July 6, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
22. On July 26, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
23. On August 16, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
24. On August 18, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
25. On September 11, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
26. On September 26, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
27. On October 8, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via certified mail at multiple addresses of record. Return receipts were received on October 17, 2014.

EXHIBIT "EH-1"

- 28. On November 13, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone. A voicemail recording indicated that the mailbox belonged to Bill Andrescavage. A voicemail message was left indicating Chesapeake's desire to lease the above described parcels. An offer letter was sent via certified mail to an address of record for William C. Andrescavage.
- 29. On November 21, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone and left a voicemail message. An offer to lease was sent via certified mail to an address of record for William C. Andrescavage.
- 30. On December 1, 2014, an independent contractor of Chesapeake Energy sent a letter with an offer to lease via certified mail to an address of record for William C. Andrescavage. Receipt of said letter was received on December 3, 2014, delivery accepted by William C. Andrescavage.

Further Affiant sayeth naught.

Dated this 8th day of December, 2014.

ERH

 Eric Hensley, Affiant
 Landman II – Appalachia South
 Chesapeake Energy Corporation

ACKNOWLEDGEMENT

STATE OF OKLAHOMA)
) SS
 COUNTY OF OKLAHOMA)

The foregoing instrument was sworn to before me, a Notary Public in and for the State of Oklahoma, and subscribed in my presence this 8th day of December, 2014, by Eric Hensley, 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:
6/23/18

Allyson Wolfe
 Notary Public

Allyson Wolfe
 Printed Name of Notary

(SEAL)



EXHIBIT "EH-1"

AFFIDAVIT OF EFFORTS TO LEASE PETE D. HUHNS AND JANICE A. HUHNS

STATE OF OHIO)
COUNTY OF CARROLL) SS

Tax Parcels # 2500100000, 2500101000, 2500104000
2500103000, 2500102000, 2500774000

Township of Orange

Section 24, Township 13N, Range 6W

The undersigned, being first duly sworn according to the law, makes this Affidavit and deposes and says that:

- 1. Affiant, Eric Hensley, is employed by Chesapeake Energy Corporation ("Chesapeake") as a Landman. Affiant's job responsibilities include the acquisition of leases, and facilitation of same, in certain areas of Ohio, including Carroll County, Ohio. 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.
2. The oil and gas interests in the above-referenced parcel of land are owned by Pete D. Huhn and Janice A. Huhn, husband and wife ("Mineral Owner"), and are currently unleased. Affiant has personal knowledge of the efforts by Chesapeake and independent contractors acquiring leases on behalf of Chesapeake to lease the above referenced parcel of land from Mineral Owner. Those efforts are described as follows.
3. On May 29, 2012, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone and left a voicemail message. A letter with an offer to lease was sent to an address of record for Mineral Owner.
4. On June 21, 2012, an independent contractor of Chesapeake Energy contacted the Mineral Owner via telephone, but Mineral Owner terminated the call after independent contractor identified themselves.
5. On July 23, 2012, an independent contractor of Chesapeake Energy visited the residence of the Mineral Owner, but no one appeared to be present at the residence. The independent contractor left a door hanger with contact information requesting an appointment.
6. On October 19, 2012, an employee of Chesapeake Energy sent a letter with an offer to lease to an address of record for Mineral Owner. Said letter requested a response by November 1, 2012.
7. On November 27, 2012, an employee of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
8. On December 14, 2012, an employee of Chesapeake Energy sent a letter with an offer to lease via certified mail to two addresses of record for Mineral Owner and requested a response by December 26, 2012.

9. On January 2, 2013 and January 10, 2013 an employee of Chesapeake Energy received returned certified letters sent December 14, 2012.
10. On August 19, 2013, an employee of Chesapeake Energy visited briefly with the Mineral Owner at their residence regarding an oil and gas lease.
11. On November 21, 2013, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
12. On December 9, 2013, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
13. On December 30, 2013, an independent contractor of Chesapeake Energy spoke with the Mineral Owner via telephone regarding an oil and gas lease.
14. On January 6, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
15. On January 23, 2014, an independent contractor of Chesapeake Energy spoke with the Mineral Owner via telephone.
16. On March 3, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
17. On March 12, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
18. On the evening of March 25, 2014, an independent contractor of Chesapeake Energy visited the Mineral Owner's residence but no one appeared to be present. The independent contractor left a business card attached to the door of the residence.
19. On April 15, 2014, an independent contractor of Chesapeake Energy attempted to make contact with the Mineral Owner via telephone and left a voicemail message.
20. On May 22, 2014, an independent contractor of Chesapeake Energy attempted to make contact with the Mineral Owner via telephone. Mineral Owner terminated the phone call after independent contractor identified themselves.
21. On June 2, 2014, an independent contractor of Chesapeake Energy attempted to make contact with the Mineral Owner via telephone.
22. On June 26, 2014, an independent contractor of Chesapeake Energy attempted to make contact with the Mineral Owner via telephone.
23. On July 1, 2014, an independent contractor of Chesapeake Energy attempted to make contact with the Mineral Owner via telephone.
24. On July 16, 2014, an independent contractor of Chesapeake Energy visited the Mineral Owner's residence but no one appeared to be present. The independent contractor left a business card at residence.
25. On July 22, 2014, an independent contractor of Chesapeake Energy visited the Mineral Owner's residence. Mineral Owner answered the door briefly to indicate that they were not interested in signing an oil and gas lease.

26. On July 31, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone. Additionally, the independent contractor sent an offer letter via first-class mail to an address of record for Mineral Owner.
27. On August 21, 2014, an independent contractor of Chesapeake Energy attempted to make contact with the Mineral Owner via telephone.
28. On September 3, 2014, an independent contractor of Chesapeake Energy visited the Mineral Owner's residence but no one appeared to be present. The independent contractor left a business card at residence.
29. On September 10, 2014, an independent contractor of Chesapeake Energy attempted to make contact with the Mineral Owner via telephone
30. On November 12, 2014, an independent contractor of Chesapeake Energy sent an offer letter via certified mail to the Mineral Owner at an address of record.
31. On November 23, 2014, an independent contractor of Chesapeake Energy contacted the Mineral Owner via telephone. A person who answered the phone, presumed to be Mineral Owner, responded "we are not interested," and terminated the call.
32. On December 2, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone and left a voicemail indicating Chesapeake's desire to enter into an oil and gas lease with Mineral Owner.

Further Affiant sayeth naught.

Dated this 17th day of December, 2014.



Eric Hensley, Affiant
Landman
Chesapeake Energy Corporation

ACKNOWLEDGEMENT

STATE OF OKLAHOMA)
) SS
COUNTY OF OKLAHOMA)

The foregoing instrument was sworn to before me, a Notary Public in and for the State of Oklahoma, and subscribed in my presence this 17th day of December, 2014, by Eric Hensley, 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:

12/23/18

Allyson J Wolfe
Notary Public

Allyson Wolfe
Printed Name of Notary

(SEAL)



EXHIBIT "EH-1"

AFFIDAVIT OF EFFORTS TO LEASE INGRID H. KELLEY

STATE OF OHIO)
) SS
COUNTY OF CARROLL)

Tax Parcels # 2500150000, 2500804000, 2501008000
2501313000, 2501007000

Township of Orange

Section 24, Township 13N, Range 6W

The undersigned, being first duly sworn according to the law, makes this Affidavit and deposes and says that:

1. Affiant, Eric Hensley, is employed by Chesapeake Energy Corporation ("Chesapeake") as a Landman. Affiant's job responsibilities include the acquisition of leases, and facilitation of same, in certain areas of Ohio, including Carroll County, Ohio. 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.
2. The oil and gas interests in the above-referenced parcel of land are owned by Ingrid H. Kelley ("Mineral Owner"), and are currently unleased. Affiant has personal knowledge of the efforts by Chesapeake and independent contractors acquiring leases on behalf of Chesapeake to lease the above referenced parcel of land from Mineral Owner. Those efforts are described as follows.
3. On April 18, 2012, an independent contractor of Chesapeake Energy spoke with the Mineral Owner via telephone. Mineral Owner indicated that they would not sign an oil and gas lease and terminated the telephone call. The independent contractor sent the Mineral Owner a proposal letter via first-class mail.
4. On August 23, 2012, an independent contractor of Chesapeake Energy contacted the Mineral Owner via telephone. Mineral Owner terminated the telephone call once the independent contractor identified themselves.
5. On September 6, 2012, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner by telephone.
6. On September 11, 2012, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner by telephone.
7. On October 19, 2012, an employee of Chesapeake Energy sent an offer letter to the Mineral Owner via first-class mail to an address of record of the Mineral Owner.
8. On October 23, 2012, an employee of Chesapeake Energy received a telephone call from the Mineral Owner. Mineral Owner stated that they did not wish to enter into an oil and gas lease.

9. On December 14, 2012, an employee of Chesapeake Energy sent an offer letter to the Mineral Owner via first-class mail to an address of record of the Mineral Owner.
10. On November 22, 2013, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone and left a voicemail message.
11. On October 8, 2014, an independent contractor of Chesapeake Energy sent the Mineral Owner an offer letter via certified mail to an address of record of Mineral Owner.
12. On October 16, 2014, an independent contractor of Chesapeake Energy received a telephone call from the Mineral Owner. Mineral Owner indicated that they are not interested in signing an oil and gas lease. Mineral Owner confirmed receipt of offer letter sent via certified mail on October 8, 2014.

Further Affiant sayeth naught.

Dated this 17th day of December, 2014.



Eric Hensley, Affiant
Landman
Chesapeake Energy Corporation

ACKNOWLEDGEMENT

STATE OF OKLAHOMA)
) SS
COUNTY OF OKLAHOMA)

The foregoing instrument was sworn to before me, a Notary Public in and for the State of Oklahoma, and subscribed in my presence this 17th day of December, 2014, by Eric Hensley, 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:

4/23/18

Allyson J Wolfe
Notary Public

Allyson Wolfe
Printed Name of Notary

(SEAL)



EXHIBIT "EH-1"

AFFIDAVIT OF EFFORTS TO LEASE DJORDJE AND HELENA DRNDARSKI

STATE OF OHIO)
) SS
COUNTY OF CARROLL)

Tax Parcels # 25-0000258.000, 25-0000259.000

Township of Orange

Section 24, Township 13N, Range 6W

The undersigned, being first duly sworn according to the law, makes this Affidavit and deposes and says that:

1. Affiant, Eric Hensley, is employed by Chesapeake Energy Corporation ("Chesapeake") as a Landman. Affiant's job responsibilities include the acquisition of leases, and facilitation of same, in certain areas of Ohio, including Carroll County, Ohio. 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.
2. The oil and gas interests in the above-referenced parcel of land are owned by Djordje Drndarski and Helena Drndarski, husband and wife ("Mineral Owner"), and are currently unleased. Affiant has personal knowledge of the efforts by Chesapeake and independent contractors acquiring leases on behalf of Chesapeake to lease the above referenced parcel of land from Mineral Owner. Those efforts are described as follows.
3. On January 16, 2012, an independent contractor of Chesapeake Energy sent the Mineral Owner a proposal letter to lease their minerals via first-class mail.
4. On May 24, 2012, an independent contractor of Chesapeake Energy sent the Mineral Owner a proposal letter to lease their minerals via first-class mail to address of record of Mineral Owner.
5. On October 19, 2012, an employee of Chesapeake Energy sent the Mineral Owner an offer to lease via first-class mail to an address of record of Mineral Owner.
6. On December 14, 2012, an employee of Chesapeake Energy sent the Mineral Owner an offer letter via certified mail to an address of record of Mineral Owner.
7. On January 2, 2013, an employee of Chesapeake Energy received a return receipt from the certified mail sent to December 14, 2012.
8. On November 11, 2013, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
9. On January 7, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.

10. On February 4, 2014, an independent contractor of Chesapeake Energy sent the Mineral Owner an offer letter via certified mail to an address of record of Mineral Owner.
11. On March 3, 2014, an independent contractor of Chesapeake Energy received a return receipt of certified mail sent February 4, 2014.
12. On October 8, 2014, an independent contractor of Chesapeake Energy sent an offer letter via certified mail to an address of record of Mineral Owner.
13. On October 14, 2014, an independent contractor of Chesapeake Energy received a return receipt from the certified mail sent October 8, 2014.
14. On November 12, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone. An offer letter to lease was sent via first-class mail to an address of record of Mineral Owner.
15. On November 21, 2014, an independent contractor of Chesapeake Energy sent an offer letter via certified mail to an address of record of Mineral Owner.
16. On December 1, 2014, an independent contractor of Chesapeake Energy received a return receipt of the certified mail sent November 21, 2014.
17. On December 3, 2014, an independent contractor of Chesapeake Energy sent an offer letter via certified mail to an address of record of Mineral Owner.

Further Affiant sayeth naught.

Dated this 17th day of December, 2014.



Eric Hensley, Affiant
Landman
Chesapeake Energy Corporation

ACKNOWLEDGEMENT

STATE OF OKLAHOMA)
) SS
COUNTY OF OKLAHOMA)

The foregoing instrument was sworn to before me, a Notary Public in and for the State of Oklahoma, and subscribed in my presence this 17th day of December, 2014, by Eric Hensley, 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:

12/23/18

Allyson L Wolfe
Notary Public

Allyson L Wolfe
Printed Name of Notary

(SEAL)



EXHIBIT "EH-1"

AFFIDAVIT OF EFFORTS TO LEASE CHERYL L. BUTLER

STATE OF OHIO)
) SS
COUNTY OF CARROLL)

Tax Parcels # 25-0001030.000, 25-0001038.000, 25-0001041.000
25-0001040.000, 25-0001039.000,

Township of Orange

Section 24, Township 13N, Range 6W

The undersigned, being first duly sworn according to the law, makes this Affidavit and deposes and says that:

1. Affiant, Eric Hensley, is employed by Chesapeake Energy Corporation ("Chesapeake") as a Landman. Affiant's job responsibilities include the acquisition of leases, and facilitation of same, in certain areas of Ohio, including Carroll County, Ohio. 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.
2. The oil and gas interests in the above-referenced parcel of land are owned by Cheryl L. Butler, a single woman ("Mineral Owner"), and are currently unleased. Affiant has personal knowledge of the efforts by Chesapeake and independent contractors acquiring leases on behalf of Chesapeake to lease the above referenced parcel of land from Mineral Owner. Those efforts are described as follows.
3. On December 14, 2011, an independent contractor of Chesapeake Energy sent the Mineral Owner a proposal letter via first-class mail.
4. On May 9, 2012, an independent contractor of Chesapeake Energy attempted to visit the Mineral Owner at their residence, but no one appeared to be present. The independent contractor left a note on the door with contact information seeking an appointment.
5. On August 6, 2012, an independent contractor of Chesapeake Energy sent the Mineral Owner a proposal letter via first-class mail.
6. On August 8, 2012, an independent contractor of Chesapeake Energy attempted to visit the Mineral Owner at their residence, but no one appeared to be present. The independent contractor left a note on the door with contact information seeking an appointment.
7. On October 19, 2012, an employee of Chesapeake Energy sent the Mineral Owner an offer letter via first-class mail to an address of record of the Mineral Owner.
8. On October 30, 2012, an employee of Chesapeake Energy spoke with the Mineral Owner via telephone. An appointment was scheduled for November 2, 2012. Mineral Owner confirmed their telephone number.

9. On November 9, 2012, an employee of Chesapeake Energy attempted to contact the Mineral Owner via telephone. An unidentified person answered the telephone and stated that Mineral Owner was out of state at the time.
10. On November 26, 2012, an employee of Chesapeake Energy attempted to contact the Mineral Owner via telephone and left a voicemail message.
11. On December 5, 2012, an employee of Chesapeake Energy visited the Mineral Owner's residence. Mineral Owner was not present at the time. Employee spoke with the parents of the Mineral Owner and requested that they ask Mineral Owner to contact said Employee.
12. On December 6, 2012, an employee of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
13. On February 24, 2012, an employee of Chesapeake Energy visited the Mineral Owner at their residence. Mineral Owner stated that they were being represented by the organizer of a local landowner group.
14. On September 13, 2013, an employee of Chesapeake Energy attempted to contact the Mineral Owner via telephone. A woman presumed to be a member of Mineral Owner's family answered the call and stated that Mineral Owner was being represented by the organizer of a local landowner group.
15. On November 25, 2013, an independent contractor of Chesapeake Energy visited the Mineral Owner's residence. Mineral Owner was not present at the time.
16. On January 7, 2014, an independent contractor of Chesapeake Energy spoke with the Mineral Owner via telephone. Mineral Owner stated that they had signed a letter of intent with the representation mentioned above and that said representative was negotiating a lease on their behalf.
17. On June 2, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
18. On June 16, 2014, an independent contractor of Chesapeake Energy spoke with the Mineral Owner via telephone. Mineral Owner stated that they were continuing to wait on their above mentioned representative to negotiate a lease on their behalf.
19. On July 6, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone and left a voicemail.
20. On July 14, 2014, an independent contractor of Chesapeake Energy spoke with the Mineral Owner via telephone. Mineral Owner asserted that their representative mentioned above was negotiating a lease on their behalf.
21. On September 17, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
22. On September 26, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
23. On November 11, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone..

24. On November 24, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone and by visiting the Mineral Owner's residence. The independent contractor spoke to Mineral Owner's father who stated that the Mineral Owner's representative mentioned above was no longer negotiating leases on behalf of landowner groups. The independent contractor made a formal offer with terms to lease Mineral Owner and requested that said offer be conveyed to Mineral Owner.
25. On November 26, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone. Mineral Owner's father indicated that Mineral Owner was not interested in leasing.
26. During the morning of December 2, 2014, an independent contractor of Chesapeake Energy attempted to contact Mineral Owner via telephone. Mineral Owner's father answered the call. The independent contractor made a formal offer to lease with terms and requested that those terms be conveyed to Mineral Owner.
27. During the evening of December 2, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone. A person presumed to be Mineral Owner's son stated that Mineral Owner was waiting on their above mentioned representative to contact them regarding the offers made on November 24, 2014 and December 2, 2014.
28. On December 3, 2014, the Mineral Owner contacted an independent contractor of Chesapeake Energy via telephone and requested that a copy of an oil and gas lease reflecting the terms offered on December 2, 2014 be sent to their above mentioned representative for review. The independent contractor prepared and sent said oil and gas lease via first-class mail to Mineral Owner's representative.
29. On December 8, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone and left a voicemail message.

Further Affiant sayeth naught.

Dated this 17th day of December, 2014.



Eric Hensley, Affiant
Landman
Chesapeake Energy Corporation

ACKNOWLEDGEMENT

STATE OF OKLAHOMA)
) SS
COUNTY OF OKLAHOMA)

The foregoing instrument was sworn to before me, a Notary Public in and for the State of Oklahoma, and subscribed in my presence this 17th day of December, 2014, by Eric Hensley, 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:

11/23/18

Allyson J Wolfe
Notary Public

Allyson Wolfe
Printed Name of Notary

(SEAL)



AFFIDAVIT OF EFFORTS TO LEASE JOHN EDWARD CLARK

STATE OF OHIO)
) SS
COUNTY OF CARROLL)

Tax Parcel # 2500703000

Township of Orange

Section 24, Township 13N, Range 6W

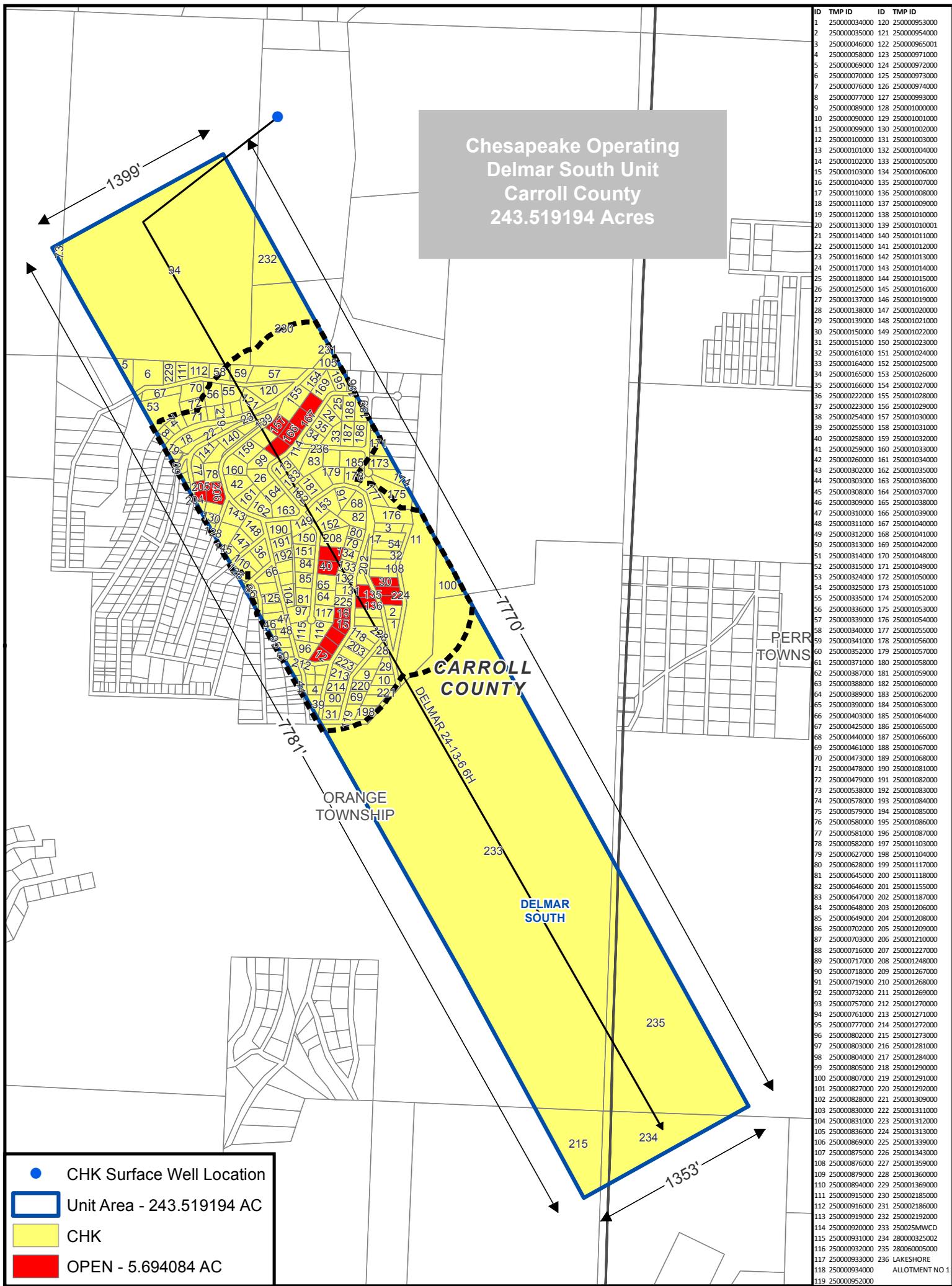
The undersigned, being first duly sworn according to the law, makes this Affidavit and deposes and says that:

1. Affiant, Eric Hensley, is employed by Chesapeake Energy Corporation ("Chesapeake") as a Landman. Affiant's job responsibilities include the acquisition of leases, and facilitation of same, in certain areas of Ohio, including Carroll County, Ohio. 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.
2. The oil and gas interests in the above-referenced parcel of land are owned by John Edward Clark, a single man ("Mineral Owner"), and are currently unleased. Affiant has personal knowledge of the efforts by Chesapeake and independent contractors acquiring leases on behalf of Chesapeake to lease the above referenced parcel of land from Mineral Owner. Those efforts are described as follows.
3. On August 6, 2012, an independent contractor of Chesapeake Energy sent an offer letter to lease to the Mineral Owner via first-class mail.
4. On October 19, 2012, an employee of Chesapeake Energy sent the Mineral Owner an offer letter to lease via first-class mail and requested a response by November 1, 2012.
5. On October 29, 2012, the offer letter that was sent on October 19, 2012 was received as undeliverable.
6. On November 16, 2012, an employee of Chesapeake Energy sent the Mineral Owner an offer letter via first-class mail.
7. On November 27, 2012, an employee of Chesapeake Energy attempted to contact the Mineral Owner via telephone.
8. On December 14, 2012, an employee of Chesapeake Energy sent the Mineral Owner an offer letter via certified mail and requested a response by December 26, 2012.
9. On January 23, 2013, an employee of Chesapeake Energy received the unclaimed certified mail sent to the Mineral Owner on December 14, 2012.

10. On September 3, 2013, an employee of Chesapeake Energy verified that the Carroll County Auditor's website did not have a tax mailing address on record for the Mineral Owner.
11. On November 22, 2013, an independent contractor of Chesapeake Energy attempted to locate additional contact information for the Mineral Owner through Internet resources, but no contact numbers were found.
12. On December 9, 2013, an independent contractor of Chesapeake Energy attempted to locate additional contact information for the Mineral Owner through Internet resources, but no information was found.
13. On January 7, 2014, an independent contractor of Chesapeake Energy verified that the contact information of record for John and Beverly Clark.
14. On March 3, 2014, an independent contractor of Chesapeake Energy visited the Mineral Owner's residence verified on January 7, 2014. A note was left on the door with contact information requesting an appointment.
15. On April 3, 2014, an independent contractor of Chesapeake Energy contacted Mineral Owner via telephone. Mineral Owner stated that they would like to meet to discuss leasing.
16. On April 4, 2014, an independent contractor of Chesapeake Energy attempted to contact Mineral Owner via telephone and left a voicemail.
17. On April 14, 2014, an independent contractor of Chesapeake Energy attempted to contact Mineral Owner via telephone and left a voicemail.
18. On April 21, 2014, an independent contractor of Chesapeake Energy attempted to contact Mineral Owner via telephone and left a voicemail.
19. On April 28, 2014, an independent contractor of Chesapeake Energy attempted to contact Beverly Clark via telephone at 330-284-4349 but there was no answer.
20. On May 7, 2014, an independent contractor of Chesapeake Energy attempted to contact Mineral Owner via telephone and left a voicemail.
21. On May 28, 2014, an independent contractor of Chesapeake Energy attempted to contact Mineral Owner via telephone.
22. On June 16, 2014, an independent contractor of Chesapeake Energy attempted to contact Mineral Owner via telephone and left a voicemail.
23. On July 6, 2014, an independent contractor of Chesapeake Energy attempted to contact Mineral Owner via telephone and left a voicemail.
24. On July 26, 2014, an independent contractor of Chesapeake Energy attempted to contact Mineral Owner via telephone and left a voicemail.
25. On August 12, 2014, an independent contractor of Chesapeake Energy visited the Mineral Owner's residence but no one appeared to be present. A note was left on the door with contact information requesting an appointment.
26. On September 16, 2014, an independent contractor of Chesapeake Energy verified that there had been no changes to address information of the Mineral Owner.

27. On September 26, 2014, an independent contractor of Chesapeake Energy visited the Mineral Owner's residence but no one appeared to be present. The independent contractor then attempted to contact Mineral Owner via telephone and left a voicemail.
28. On October 28, 2014, an independent contractor of Chesapeake Energy attempted to contact Mineral Owner via telephone and left a voicemail.
29. On November 12, 2014, an independent contractor of Chesapeake Energy attempted to contact Mineral Owner via telephone and left a voicemail.
30. On November 24, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone. Said phone call was answered but immediately terminated.
31. On November 26, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone and left a voicemail. The independent contractor then attempted to visit the Mineral Owner's residence at but the property appeared to be vacant. A second telephone attempt was unsuccessful and a voicemail was left requesting a return phone call.
32. On November 26, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner via telephone at their place of employment however Mineral Owner was not present. The independent contractor then attempted to contact a possible of the Mineral Owner.
33. On December 1, 2014, an independent contractor of Chesapeake Energy attempted to contact the Mineral Owner at their place of employment.
34. On December 3, 2014, an independent contractor of Chesapeake Energy spoke with Mineral Owner via telephone. Ms. Clark informs the independent contractor that she has been divorced from John Clark for 12 years, and that she signed complete ownership of the subject property to Mr. Clark. She states that she does not have any contact information for Mr. Clark and does not know how to reach him.
35. On December 8, 2014, an independent contractor of Chesapeake Energy located a relative of Mineral Owner. Attempts to contact this relative were unsuccessful.
36. On December 11, 2014, an independent contractor of Chesapeake Energy attempted to visit the Mineral Owner at their residence but all dwellings appeared to be unoccupied.
37. On December 18, 2014, an independent contractor of Chesapeake Energy conducted further research and attempted to contact the Mineral Owner at numerous other telephone numbers of record. All attempts were unsuccessful.

Further Affiant sayeth naught.



Chesapeake Operating
 Delmar South Unit
 Carroll County
 243.51914 Acres

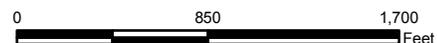
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36	250002220000	155	250001028000
37	250002230000	156	250001029000
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90	250007180000	209	250001267000
91	250007190000	210	250001268000
92	250007320000	211	250001269000
93	250007570000	212	250001270000
94	250007610000	213	250001271000
95	250007770000	214	250001272000
96	250008020000	215	250001273000
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106	250008690000	225	250001339000
107	250008750000	226	250001343000
108	250008760000	227	250001359000
109	250008790000	228	250001360000
110	250008940000	229	250001369000
111	250009150000	230	250002185000
112	250009160000	231	250002186000
113	250009190000	232	250002192000
114	250009200000	233	250025MWC
115	250009310000	234	280000325002
116	250009320000	235	280060005000
117	250009330000	236	LAKESHORE
118	250009340000		ALLOTMENT NO 1
119	250009520000		

- CHK Surface Well Location
- Unit Area - 243.51914 AC
- CHK
- OPEN - 5.694084 AC

UNIT PLAT

Delmar South Unit
 Orange & Perry Township
 Carroll Co., OH

1 inch = 850 feet

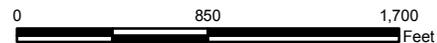


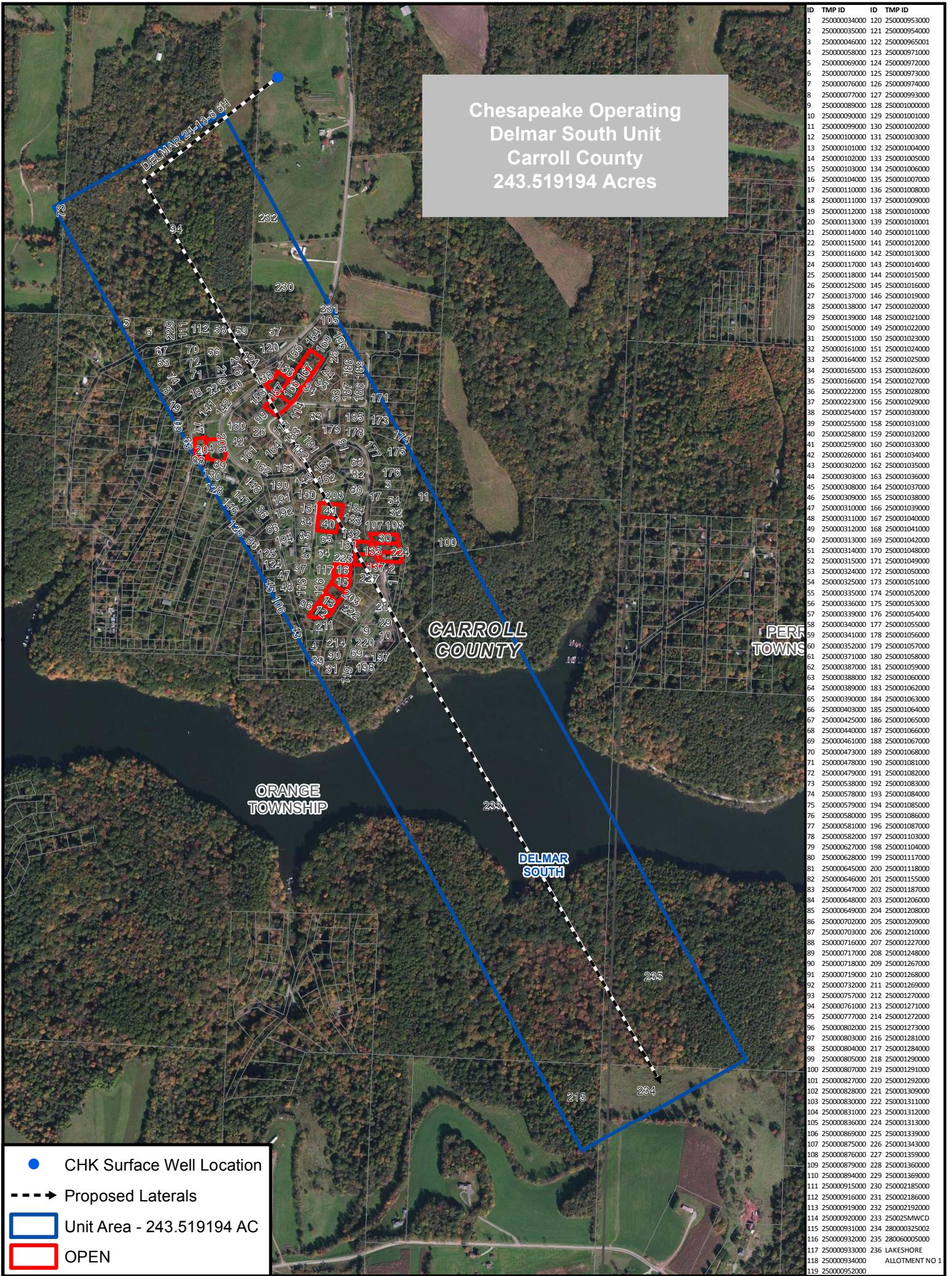


UNIT PLAT

**Delmar South Unit
Orange & Perry Township
Carroll Co., OH**

1 inch = 850 feet





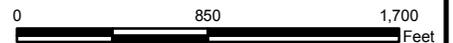
Chesapeake Operating
Delmar South Unit
Carroll County
243.519194 Acres

- CHK Surface Well Location
- Proposed Laterals
- Unit Area - 243.519194 AC
- OPEN

UNIT PLAT

Delmar South Unit
Orange & Perry Township
Carroll Co., OH

1 inch = 850 feet



WORKING INTEREST OWNER

APPROVAL OF

UNIT PLAN FOR THE

DELMAR SOUTH UNIT

Orange and Perry Townships

Carroll County, Ohio

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, a Unit Plan has been prepared for the testing, development, and operation of certain Tracts identified therein, which Plan consists of an agreement entitled, "Unit Agreement, The Delmar South Unit, Perry Township, Carroll County, Ohio," dated December 16, 2014 (the "Unit Agreement"); and an agreement entitled, "A.A.P.L. Form 610-1989 Model Form Operating Agreement," also regarding the Delmar South Unit and of like date (the "Unit Operating Agreement"); and,

WHEREAS, the undersigned is the owner of a Working Interest in and to one or more of the Tracts identified in said Unit Plan, namely, the Tracts identified below (hereinafter, the "Owner").

NOW, THEREFORE, the Owner hereby approves the Unit Plan and acknowledges receipt of full and true copies of both the Unit Agreement and the Unit Operating Agreement.

IN WITNESS WHEREOF, the undersigned has executed this instrument on the date set forth opposite the signature of its representative.

WORKING INTEREST OWNER

TRACT NO. (see attached)

TRACT ACREAGE 237.825110

RELATED WORKING INTEREST PERCENTAGE 91.38769%

CHESAPEAKE EXPLORATION, L.L.C.

Date 12/8/14

By: ER.H
Eric R. Hensley, Landman II – Appalachia South

WORKING INTEREST OWNER

APPROVAL OF

UNIT PLAN FOR THE

DELMAR SOUTH UNIT

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WHEREAS, the undersigned is the owner of a Working Interest in and to one or more of the Tracts identified in said Unit Plan, namely, the Tracts identified below (hereinafter, the "Owner").

NOW, THEREFORE, the Owner hereby approves the Unit Plan and acknowledges receipt of full and true copies of both the Unit Agreement and the Unit Operating Agreement.

IN WITNESS WHEREOF, the undersigned has executed this instrument on the date set forth opposite the signature of its representative.

WORKING INTEREST OWNER

TRACT NO. 94, 234

TRACT ACREAGE 40.2417678

RELATED WORKING INTEREST PERCENTAGE 6.15899%

ENERVEST OPERATING, L.L.C.

Date 2/13/13

By: _____


James D. McKinney,
Senior Vice President and General Manager
On Behalf of All EnerVest Entities

Exhibit 6

Exhibit 6.1

Working Interest Owners

Attached to and made a part of that certain Unit Operating Agreement dated December 16, 2014 as approved by the Ohio Department of Natural Resources for the Delmar South Unit.

TRACT NUMBER	LESSOR	SURFACE ACRES IN UNIT	TAX MAP PARCEL ID NUMBERS
1	GARY T. WOLFE AND TAMMY M.	0.246998	250000034000
2	GARY T. WOLFE AND TAMMY M.	0.259216	250000035000
3	EDWARD B BARKER JR AND KATHY	0.301600	250000046000
4	RUSSELL R. BROWN AND TAUNIE	0.175828	250000058000
5	RICHJENA J. COPEN, A WIDOW	0.348690	250000069000
6	RICHJENA J. COPEN, A WIDOW	0.947702	250000070000
7	WILLIAM R. BRADLEY AND SHIRLEY	0.078815	250000076000
8	WILLIAM R. BRADLEY AND SHIRLEY	0.147008	250000077000
9	JAMES E. BUTLER AND DOROTHY A.	0.256977	250000089000
10	SUNNY KAREN GAY ZENGLER	0.284301	250000090000
11	JAMES E. BUTLER AND DOROTHY A.	5.616738	250000099000
17	KENNETH W MARTSOLF AND SANDRA L	0.332107	250000110000
18	WILLIAM R. BRADLEY AND SHIRLEY	0.440673	250000111000
19	WILLIAM R. BRADLEY AND SHIRLEY	0.074638	250000112000
20	WILLIAM R. BRADLEY AND SHIRLEY	0.102041	250000113000
21	WILLIAM R. BRADLEY AND SHIRLEY	0.018154	250000114000
22	WILLIAM R. BRADLEY AND SHIRLEY	0.315691	250000115000
23	WILLIAM R. BRADLEY AND SHIRLEY	0.186557	250000116000
24	JOHN OSTER AND CHRISTINE OSTER	0.302038	250000117000
25	JOHN OSTER AND CHRISTINE OSTER	0.297131	250000118000
26	DENISE D GANDER	0.459125	250000125000
27	JAMES E. BUTLER AND DOROTHY A.	0.223871	250000137000
28	JAMES E. BUTLER AND DOROTHY A.	0.215177	250000138000
29	JAMES E. BUTLER AND DOROTHY A.	0.260645	250000139000
31	JONATHAN D LLOYD	0.227873	250000151000
32	CHADWICK FAMILY REV LIV TRUST	0.272530	250000161000
33	JOHN E. OSTER	0.346731	250000164000
34	JOHN E. OSTER	0.295149	250000165000
35	JOHN E. OSTER	0.303017	250000166000

TRACT NUMBER	LESSOR	SURFACE ACRES IN UNIT	TAX MAP PARCEL ID NUMBERS
36	DAVID SAMSA, A WIDOWER	0.374838	250000222000
37	DAVID SAMSA, A WIDOWER	0.239485	250000223000
38	LLOYD P. DOERSCHUK FAMILY	0.079174	250000254000
39	LLOYD P. DOERSCHUK FAMILY	0.143783	250000255000
42	DWIGHT L. VAN METER, A WIDOWER	0.533199	250000260000
43	RICHARD A. BUHITE AND EVA M.	0.062841	250000302000
44	RICHARD A. BUHITE AND EVA M.	0.012798	250000303000
45	RICHARD A. BUHITE AND EVA M.	0.060074	250000308000
46	EDWARD J. RICHARDSON AND ANN	0.106239	250000309000
47	EDWARD J. RICHARDSON AND ANN	0.130853	250000310000
48	RICHARD A. BUHITE AND EVA M.	0.134870	250000311000
49	RICHARD A. BUHITE AND EVA M.	0.151582	250000312000
50	RICHARD A. BUHITE AND EVA M.	0.144325	250000313000
51	RICHARD A. BUHITE AND EVA M.	0.111767	250000314000
52	RICHARD A. BUHITE AND EVA M.	0.094031	250000315000
53	WAYNE M. SIGMAN AND TAMMY R.	1.137880	250000324000
54	SUNNY KAREN GAY ZENGLER	0.310136	250000325000
55	BOBBY L. HULL, A SINGLE PERSON	0.395123	250000335000
56	BOBBY L. HULL, A SINGLE PERSON	0.483471	250000336000
60	EDGAR J FLAGG AND SUSAN KAY FLAGG	0.000367	250000352000
61	BOBBY L. HULL, A SINGLE PERSON	0.129742	250000371000
62	PATRICK M. O'BRIEN	0.082163	250000387000
63	PATRICK M. O'BRIEN	0.033782	250000388000
64	MICHAEL C. PATTERSON	0.357273	250000389000
65	MICHAEL C. PATTERSON	0.351766	250000390000
66	TODD A SAMSA AND JACQUELYN S S	0.245259	250000403000
67	WAYNE M. SIGMAN AND TAMMY R.	0.391569	250000425000
68	JOHN M. SHOCKEY AND DARLENE S.	0.374011	250000440000
69	DONALD E. WEIGAND, SR.	0.245004	250000461000
70	ERIN L. WALKER	0.440968	250000473000
71	ERIN L. WALKER	0.381344	250000478000
72	ERIN L. WALKER	0.330689	250000479000
73	JAY HARDMAN	0.148430	250000538000

TRACT NUMBER	LESSOR	SURFACE ACRES IN UNIT	TAX MAP PARCEL ID NUMBERS
74	WILLIAM R. BRADLEY AND SHIRLEY	0.151348	250000578000
75	WILLIAM R. BRADLEY AND SHIRLEY	0.142620	250000579000
76	FRANK J AND MELISSA M HOWARD	0.121091	250000580000
77	FRANK J AND MELISSA M HOWARD	0.202127	250000581000
78	FRANK J AND MELISSA M HOWARD	0.357979	250000582000
79	JERRY D. NICHOLAS, II	0.227850	250000627000
80	JERRY D. NICHOLAS, II	0.221868	250000628000
81	ROBERT M BASHAM, A SINGLE MAN	0.321457	250000645000
82	SIEGFRIED JOSEPH LEJEUNE	0.451682	250000646000
83	REINHOLD MUELLER	0.514652	250000647000
84	ROBERT M BASHAM, A SINGLE MAN	0.317632	250000648000
85	ROBERT M BASHAM, A SINGLE MAN	0.314194	250000649000
86	JASON VICTOR MARIOL AND TAMME LOUISE	0.119483	250000702000
88	WAYNE M SIGMAN AND TAMMY R SIGMAN	0.096361	250000716000
89	WAYNE M SIGMAN AND TAMMY R SIGMAN	0.194713	250000717000
90	SUNNY KAREN GAY ZENGLER	0.289997	250000718000
91	JOHN M. SHOCKEY AND DARLENE S.	0.303154	250000719000
92	EDDIE MATHES	0.008170	250000732000
93	PAUL L. ISNER	0.230533	250000757000
94	ROBERT W. MCFARLAND AND SHARON	34.164102	250000761000
95	JOHN AND DARLENE MAST (8.33%)	0.002227	250000777000
95	SCOTT ELDON NEWELL (33.33%)	0.008906	250000777000
95	JACQUELYN FENTON (33.33%)	0.008906	250000777000
95	KENNETH D KOLLAR JR AND MICHELLE L KOLLAR (8.33%)	0.002227	250000777000
95	KEVIN J KOLLAR AND TIA L KOLLAR (8.33%)	0.002227	250000777000
95	MELODY K KOLLAR (8.33%)	0.002227	250000777000
96	MICHAEL C. PATTERSON	0.360046	250000802000
97	ROBERT M BASHAM, A SINGLE MAN	0.385603	250000803000
99	DENISE D GANDER	0.394331	250000805000
100	DOMINIC C PAGLIALUNGA AND	1.075118	250000807000
101	DAVID SAMSA, A WIDOWER	0.099203	250000827000
102	MARK SAMSA AND DENISE SAMSA	0.023831	250000828000
103	ROBERT M BASHAM, A SINGLE MAN	0.055796	250000830000

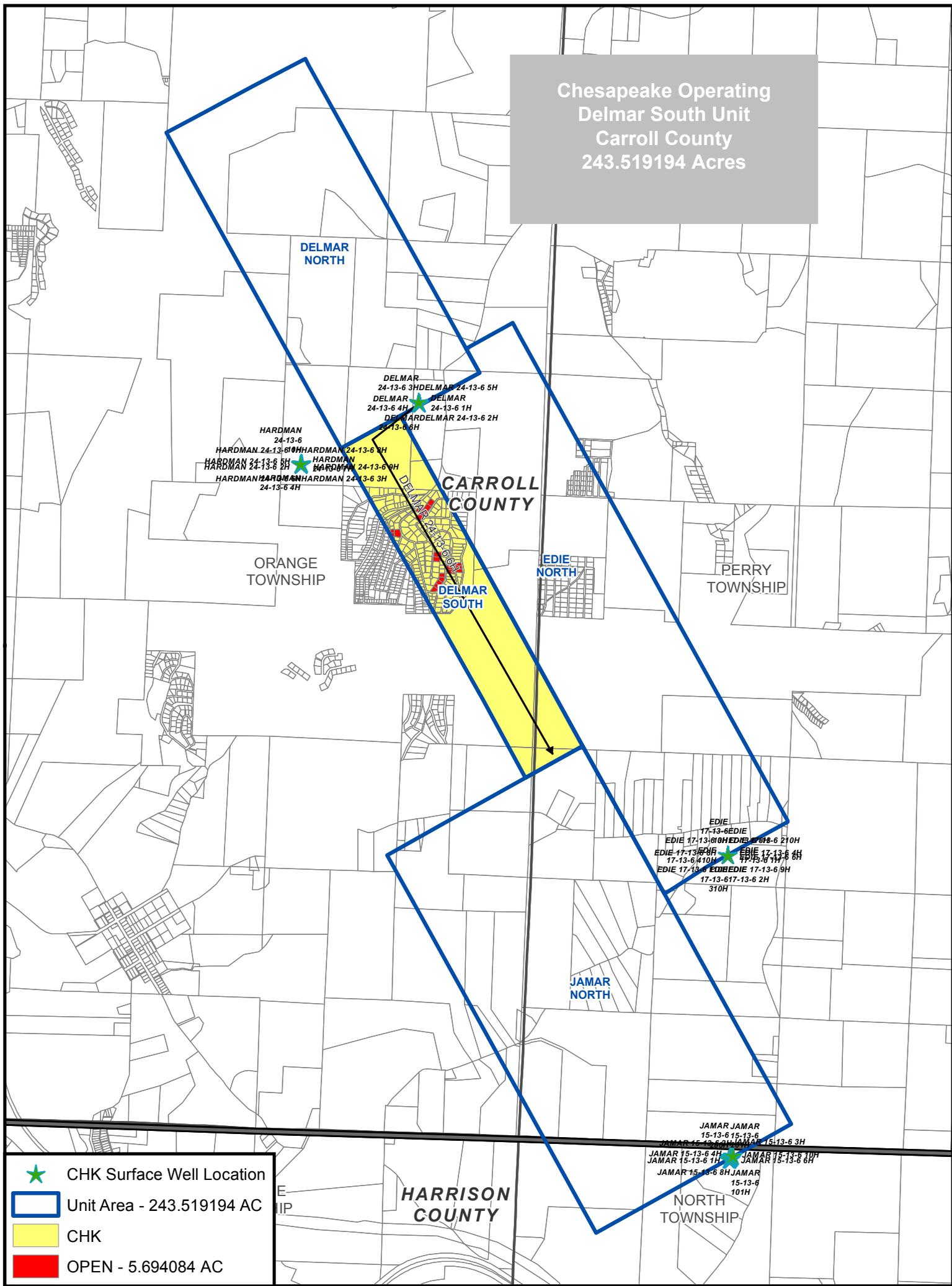
TRACT NUMBER	LESSOR	SURFACE ACRES IN UNIT	TAX MAP PARCEL ID NUMBERS
104	ROBERT M BASHAM, A SINGLE MAN	0.275842	250000831000
105	DOMINIC C PAGLIALUNGA AND	0.364134	250000836000
106	MARK E. AND MARY PROVENS (50%)	0.000048	250000869000
106	DENNIS L AULTMAN AND DEBORAH S. AULTMAN (50%)	0.000048	250000869000
107	PRYSOCK FAMILY REVOCABLE TRUST	0.286178	250000875000
108	PRYSOCK FAMILY REVOCABLE TRUST	0.289360	250000876000
109	JEFFERY S REED AND NANCY REED	0.002359	250000879000
110	DAVID SAMSA, A WIDOWER	0.233506	250000894000
111	CHARLES H. PLOTT	0.285114	250000915000
112	CHARLES H. PLOTT	0.364408	250000916000
113	REINHOLD MUELLER	0.342471	250000919000
114	REINHOLD MUELLER	0.342317	250000920000
115	MICHAEL C. PATTERSON	0.392882	250000931000
116	MICHAEL C. PATTERSON	0.418508	250000932000
117	MICHAEL C. PATTERSON	0.372082	250000933000
118	DANIEL SUKOSD AND CAROL SUKOSD	0.281048	250000934000
119	DONALD E. WEIGAND, SR.	0.247466	250000952000
120	SAMUEL D. MIZE AND SHARON S.	0.557975	250000953000
121	SAMUEL D. MIZE AND SHARON S.	0.431819	250000954000
122	RUSSELL R. BROWN AND TAUNIE	0.119418	250000965001
123	THOMAS E. GROVE AND GERALDINE	0.176774	250000971000
124	THOMAS E. GROVE AND GERALDINE	0.223039	250000972000
125	THOMAS E. GROVE AND GERALDINE	0.196459	250000973000
126	DAVID SAMSA, A WIDOWER	0.049715	250000974000
127	EVERETT W. AYERS AND SHARON K.	0.010506	250000993000
128	EVERETT W. AYERS AND SHARON K.	0.000568	250001000000
129	EVERETT W. AYERS AND SHARON K.	0.056396	250001001000
130	EVERETT W. AYERS AND SHARON K.	0.144741	250001002000
131	ROBIN LEMASTER	0.222503	250001003000
132	GARY J. GRIMES AND CAROL	0.224895	250001004000
133	GARY J. GRIMES AND CAROL	0.219930	250001005000
134	THOMAS G. & NANCY L. BAUER, HU	0.223890	250001006000
137	JAMES E. BUTLER AND DOROTHY A.	0.279102	250001009000

TRACT NUMBER	LESSOR	SURFACE ACRES IN UNIT	TAX MAP PARCEL ID NUMBERS
138	WILLIAM R. BRADLEY AND SHIRLEY	0.207792	250001010000
139	WILLIAM R. BRADLEY AND SHIRLEY	0.142741	250001010001
140	WILLIAM R. BRADLEY AND SHIRLEY	0.334014	250001011000
141	WILLIAM R. BRADLEY AND SHIRLEY	0.287885	250001012000
142	WILLIAM R. BRADLEY AND SHIRLEY	0.259983	250001013000
143	EVERETT W. AYERS AND SHARON K.	0.428428	250001014000
144	EVERETT W. AYERS AND SHARON K.	0.416425	250001015000
145	EVERETT W. AYERS AND SHARON K.	0.037926	250001016000
146	EVERETT W. AYERS AND SHARON K.	0.171805	250001019000
147	EVERETT W. AYERS AND SHARON K.	0.371331	250001020000
148	EVERETT W. AYERS AND SHARON K.	0.441190	250001021000
149	RUSSELL R. BROWN AND TAUNIE	0.298006	250001022000
150	RUSSELL R. BROWN AND TAUNIE	0.360644	250001023000
151	RUSSELL R. BROWN AND TAUNIE	0.349313	250001024000
152	MARTHA LEJEUNE AND SIEGFRIED L	0.448766	250001025000
153	MARTHA EJEUNE	0.320300	250001026000
154	SANDI S. SCHLEMMER	0.324195	250001027000
155	SANDI S. SCHLEMMER	0.325686	250001028000
156	SANDI S. SCHLEMMER	0.347887	250001029000
158	DWIGHT L. VAN METER, A WIDOWER	0.343834	250001031000
159	DWIGHT L. VAN METER, A WIDOWER	0.456092	250001032000
160	DWIGHT L. VAN METER, A WIDOWER	0.464208	250001033000
161	DENISE D GANDER	0.408316	250001034000
162	DENISE D GANDER	0.456920	250001035000
163	DENISE D GANDER	0.523052	250001036000
164	DENISE D GANDER	0.358126	250001037000
169	JOHN OSTER AND CHRISTINE OSTER	0.436446	250001042000
170	JAMES E. BUTLER AND DOROTHY A.	0.026760	250001048000
171	JAMES E. BUTLER AND DOROTHY A.	0.136693	250001049000
172	KATHERINE AYERS, A WIDOW	0.252402	250001050000
173	KATHERINE AYERS, A WIDOW	0.368928	250001051000
174	KATHERINE AYERS, A WIDOW	0.409076	250001052000
175	KATHERINE AYERS, A WIDOW	0.893092	250001053000

TRACT NUMBER	LESSOR	SURFACE ACRES IN UNIT	TAX MAP PARCEL ID NUMBERS
176	JULIE DENISE FUNK	0.732457	250001054000
177	KATHERINE AYERS, A WIDOW	0.509224	250001055000
178	JOHN M. SHOCKEY AND DARLENE S.	0.379808	250001056000
179	JOHN M. SHOCKEY AND DARLENE S.	0.333742	250001057000
180	ELLEN M. BAILEY	0.341570	250001058000
181	ELLEN M. BAILEY	0.379255	250001059000
182	ELLEN M. BAILEY	0.312503	250001060000
183	REINHOLD MUELLER	0.324564	250001062000
184	SHERRY BOUSLAUGH AND FRANKIE	0.330577	250001063000
185	GEORGE B SARAC	0.491870	250001064000
186	STEVE L. CENTEA AND SHERRIE	0.366895	250001065000
187	JEFFREY H. BONECUTTER	0.369575	250001066000
188	STEVE L. CENTEA AND SHERRIE	0.373582	250001067000
189	STEVE L. CENTEA AND SHERRIE	0.251292	250001068000
190	RUSSELL R. BROWN AND TAUNIE	0.432432	250001081000
191	RUSSELL R. BROWN AND TAUNIE	0.342922	250001082000
192	RUSSELL R. BROWN AND TAUNIE	0.231158	250001083000
193	RUSSELL R. BROWN AND TAUNIE	0.213065	250001084000
194	RUSSELL R. BROWN AND TAUNIE	0.198850	250001085000
195	JOHN OSTER AND CHRISTINE OSTER	0.371632	250001086000
196	JOHN OSTER AND CHRISTINE OSTER	0.057067	250001087000
197	STEPHEN BELOPOTOSKY	0.251562	250001103000
198	STEPHEN BELOPOTOSKY	0.234527	250001104000
199	BONITA LYNN TRIMBLE	0.036672	250001117000
200	BONITA LYNN TRIMBLE	0.012183	250001118000
201	WAYNE M. SIGMAN AND TAMMY R.	0.000448	250001155000
202	CONNIE D. TRACHSEL AND DENNIS	0.297295	250001187000
203	DANIEL SUKOSD AND CAROL SUKOSD	0.267727	250001206000
207	PATRICK M. O'BRIEN AND GAYLE	0.075127	250001227000
208	JERRY D. NICHOLAS, II	0.549072	250001248000
209	RUSSELL R. BROWN AND TAUNIE	0.113111	250001267000
210	FREDERICK D. SMITH	0.110651	250001268000
211	FREDERICK D. SMITH	0.137806	250001269000

TRACT NUMBER	LESSOR	SURFACE ACRES IN UNIT	TAX MAP PARCEL ID NUMBERS
212	FREDERICK D. SMITH	0.131234	250001270000
213	FREDERICK D. SMITH	0.306728	250001271000
214	FREDERICK D. SMITH	0.291659	250001272000
215	STEPHEN M. EDIE, A SINGLE MAN	4.289355	250001273000
216	BOBBY L. HULL, A SINGLE PERSON	0.171883	250001281000
217	JOSEPH W. MANLEY, JR.	0.007981	250001284000
218	BOBBY L. HULL, A SINGLE PERSON	0.139575	250001290000
219	BOBBY L. HULL, A SINGLE PERSON	0.133082	250001291000
220	DONALD E. WEIGAND, SR.	0.243056	250001292000
221	DONALD E. WEIGAND, SR.	0.262133	250001309000
222	JULIE A. MURPHY	0.254409	250001311000
223	JULIE A. MURPHY	0.253336	250001312000
225	ROBIN LEMASTER	0.225553	250001339000
226	SIEGFRIED JOSEPH LEJEUNE	0.396659	250001343000
227	JAMES E. BUTLER AND DOROTHY A.	0.300012	250001359000
228	JAMES E. BUTLER AND DOROTHY A.	0.383728	250001360000
229	SANDY LYNN ESTEE AND SUSAN	0.320575	250001369000
230	RICKY L SNAIR AND KAREN J	6.205649	250002185000
231	DOMINIC C PAGLIALUNGA AND	0.026124	250002186000
232	DELMAR M BURKHART AND DORIS L	1.791385	250002192000
233	THE MUSKINGUM CONSERVANCY	88.886316	250025MWCD
234	GREGORY ALLEN EDIE AND JACLYNN	5.831383	280000325002
235	THE MUSKINGUM CONSERVANCY	22.281580	280060005000
236	CARROLL COUNTY BOARD OF COMMISSIONERS	11.780113	LAKESHORE ALLOTMENT NO 1
237.825110			

Exhibit 7 to Delmar South Unitization Application



UNIT PLAT

Delmar South Unit
Orange & Perry Township
Carroll Co., OH

1 inch = 2,450 feet



