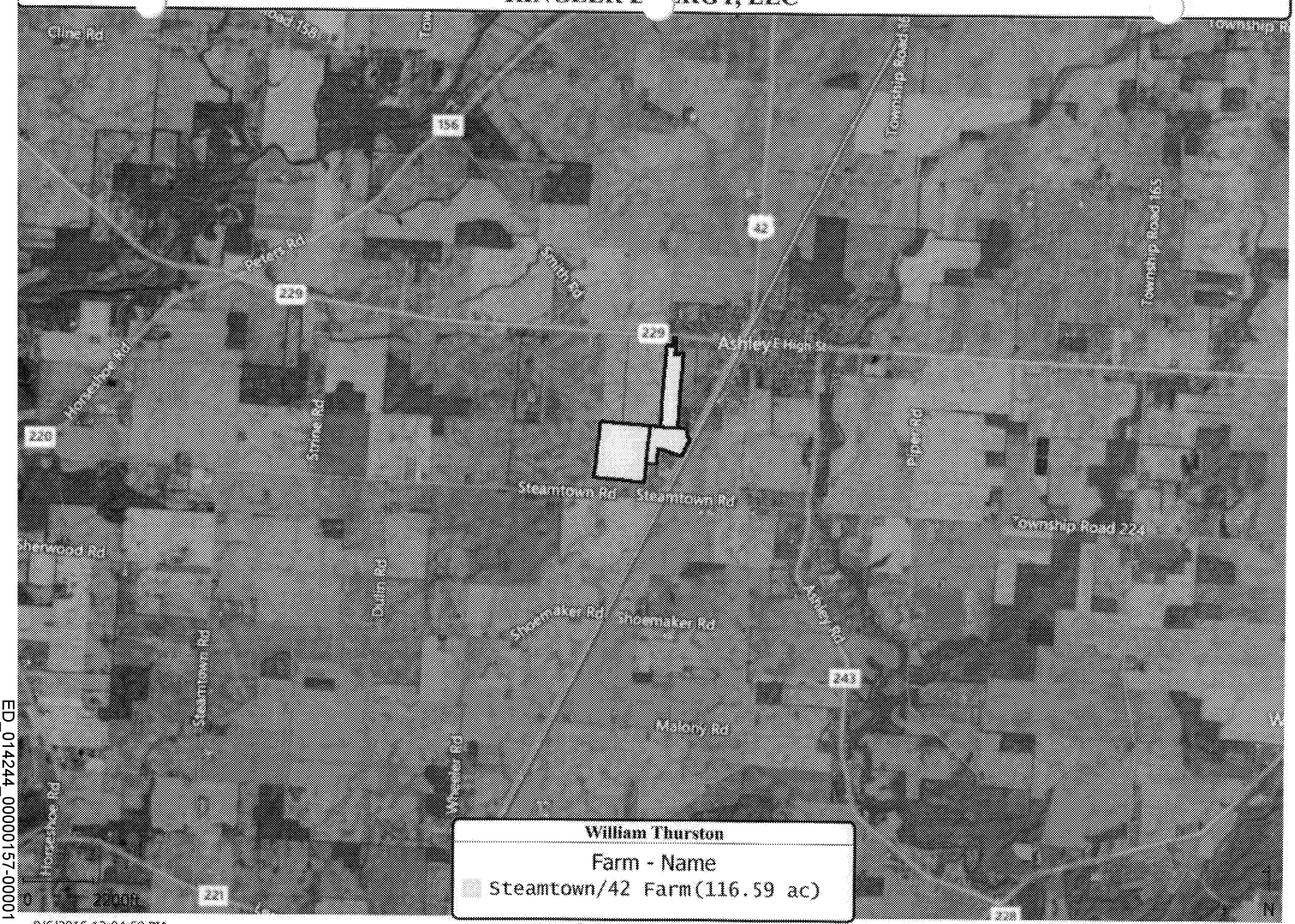
RINGLER ENERGY, LLC



William Thurston

Farm - Name

Steamtown/42 Farm(116.59 ac)

9/6/2016 12:04:50 PM

Ag Leader Technology SMS Advanced

ED_014244_00000157-00001

RINGLER EN[illegible]RGY, LLC

Farm - Name
Steamtown/42 Farm(116.59 ac)

WILLIAM THURSTON
Cty:Delaware, OH Twp:Oxford

9/6/2016 10:31:02 AM

Ag Leader Technology SMS Advanced

ED_014244_00000157-00002

Soil Map—Delaware County, Ohio
(Renergy - Thurston - DEO-02-07)

Map Scale: 1:3,100 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

ED_014244_00000157-00003

Map Unit Legend

Delaware County, Ohio (OH041)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	6.8	29.3%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	3.4	14.7%
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	12.9	56.0%
Totals for Area of Interest		**23.0**	**100.0%**

ED_014244_00000157-00004

Map Scale: 1:4,920 if printed on A portrait (8.5" x 11") sheet.

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

N

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Map Unit Legend

Delaware County, Ohio (OH041)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	11.2	36.0%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	2.3	7.4%
Gwg1B1	Glynwood silt loam, ground moraine, 2 to 6 percent slopes	0.4	1.2%
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	17.2	55.4%
Totals for Area of Interest		**31.0**	**100.0%**

Flooding Frequency Class—Delaware County, Ohio
(Renergy - Thurston - DEO-02-07)

Map Scale: 1:3,100 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

ED_014244_00000157-00007

Flooding Frequency Class

Flooding Frequency Class— Summary by Map Unit — Delaware County, Ohio (OH041)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	None	6.8	29.3%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	None	3.4	14.7%
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	None	12.9	56.0%
Totals for Area of Interest			**23.0**	**100.0%**

Description

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent.

"None" means that flooding is not probable. The chance of flooding is nearly 0 percent in any year. Flooding occurs less than once in 500 years.

"Very rare" means that flooding is very unlikely but possible under extremely unusual weather conditions. The chance of flooding is less than 1 percent in any year.

"Rare" means that flooding is unlikely but possible under unusual weather conditions. The chance of flooding is 1 to 5 percent in any year.

"Occasional" means that flooding occurs infrequently under normal weather conditions. The chance of flooding is 5 to 50 percent in any year.

"Frequent" means that flooding is likely to occur often under normal weather conditions. The chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year.

"Very frequent" means that flooding is likely to occur very often under normal weather conditions. The chance of flooding is more than 50 percent in all months of any year.

Flooding Frequency Class—Delaware County, Ohio
(Renergy Thurston DEO-02-08)

Map Scale: 1:4,920 if printed on A portrait (8.5" x 11") sheet.

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Flooding Frequency Class

Flooding Frequency Class— Summary by Map Unit — Delaware County, Ohio (OH041)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	None	11.2	36.0%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	None	2.3	7.4%
Gwg1B1	Glynwood silt loam, ground moraine, 2 to 6 percent slopes	None	0.4	1.2%
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	None	17.2	55.4%
Totals for Area of Interest			**31.0**	**100.0%**

Description

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent.

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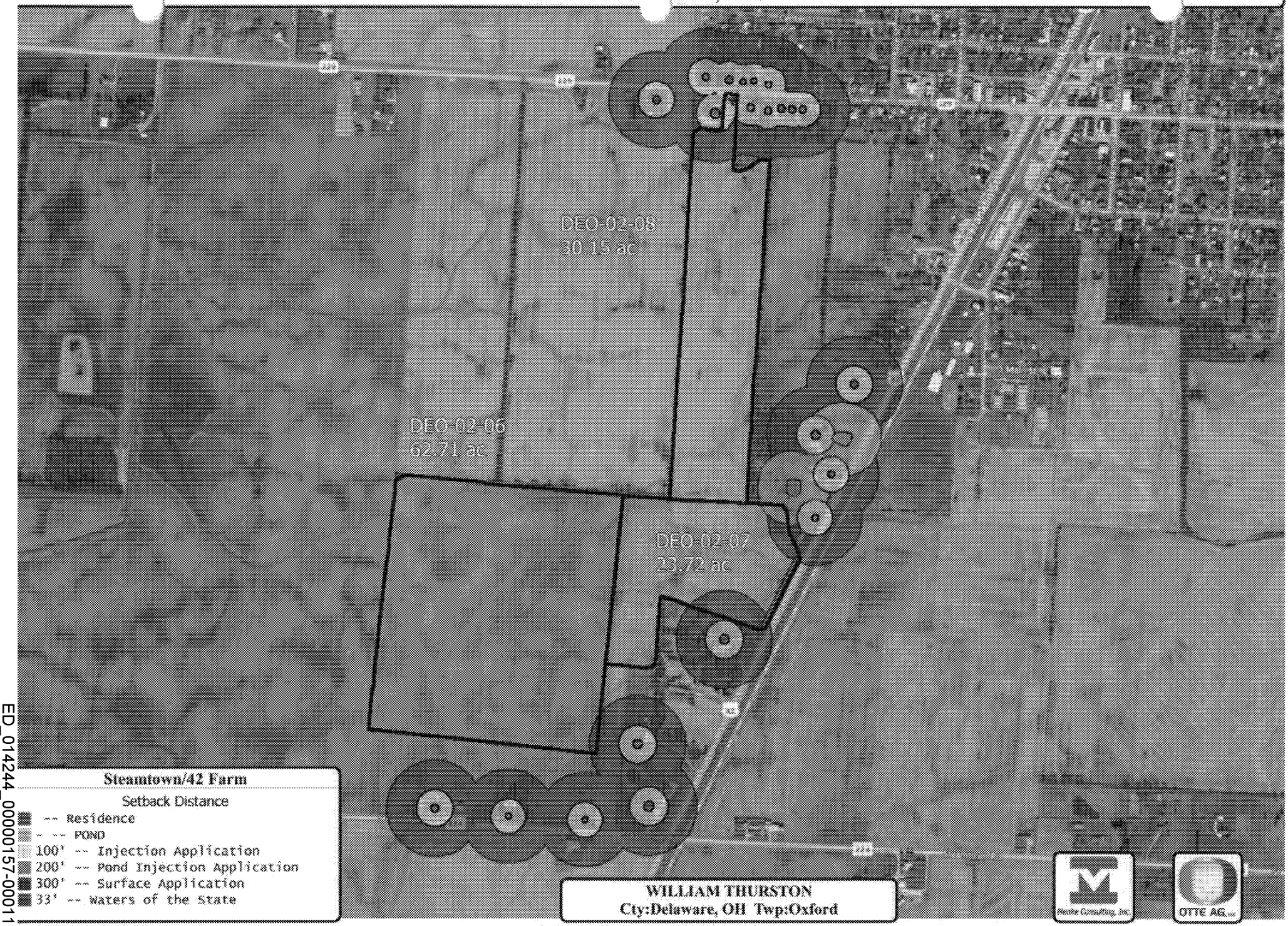
RINGLER ENERGY, LLC



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Ag Leader Technology SMS Advanced

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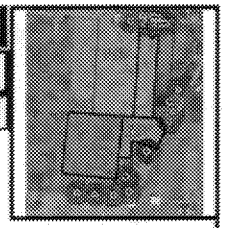
Query 1



Layer 1 - Steamtown/42 Farm | William Thursto

Main Layer

Total area	23.72 ac
Length	4,738.3 ft
Count	1

Description	Value	Area	Length	Count
Farm - Name				
	Steamtown/42 Farm	23.72 ac	4,738.3 ft	1
Field - Name				
	DEO-02-07	23.72 ac	4,738.3 ft	1

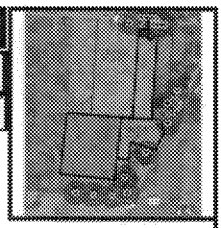
Layer 2 - Setbacks | 2016 |

Main Layer

Total area	3.292 ac
Length	3,787.2 ft
Count	3

Description	Value	Area	Length	Count
Setback Names				
	POND Injection	0.387 ac	555.47 ft	1
	Waters of the State	0.413 ac	1,170.3 ft	1
	Surface	2.492 ac	2,061.4 ft	1
Setback Distance				
	200'	0.387 ac	555.47 ft	1
	33'	0.413 ac	1,170.3 ft	1
	300'	2.492 ac	2,061.4 ft	1

Query 2



Layer 1 - Steamtown/42 Farm | William Thursto

Main Layer

Total area	30.15 ac
Length	6,674.0 ft
Count	1

Description	Value	Area	Length	Count
Farm - Name				
	Steamtown/42 Farm	30.15 ac	6,674.0 ft	1
Field - Name				
	DEO-02-08	30.15 ac	6,674.0 ft	1

Layer 2 - Setbacks | 2016 |

Main Layer

Total area	1.906 ac
Length	2,323.3 ft
Count	2

Description	Value	Area	Length	Count
Setback Names				
	Injection	0.479 ac	1,061.6 ft	1
	Surface	1.426 ac	1,261.8 ft	1
Setback Distance				
	100'	0.479 ac	1,061.6 ft	1
	300'	1.426 ac	1,261.8 ft	1

21-00029 to 30

August 15, 2016

Permitted Beneficial Use Sites

1:18,056

0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

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Division of Surface Waters Ohio EPA

County of Delaware, Esri, HERE, DeLorme, INCREMENT P, NGA, USGS | Ohio EPA Division of Surface Water | Esri, HERE |

ED_014244_00000157-00014

lb/A

BROOKSIDE LABORATORIES, INC.

58251-3

SOIL AUDIT AND INVENTORY REPORT

Name Ringler Energy City Cardington State OH

Independent Consultant Brookside Consultants of Ohio, Inc. Date 08/10/2016

Sample Location		THURSTON/STEAM	20-	29-			
Sample Identification			d 18 in 00030	d 18 in 00029			
Lab Number			1150-1	1151-1			
Total Exchange Capacity (ME/100 g)			17.20	21.01			
pH (H_2O 1:1)			5.7	5.4			
Organic Matter (humus) %			3.14	3.35			
Estimated Nitrogen Release		lb/A	243	252			
ANIONS	SOLUBLE SULFUR*	ppm	11	9			
PHOSPHORUS	MEHLICH III	lb/A P as P_2O_5	192	302			
		ppm of P	14	22			
	BRAY II	lb/A P as P_2O_5	192	302			
		ppm of P	14	22			
	OLSEN	lb/A P as P_2O_5					
		ppm of P					
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	11160	11898			
		ppm	1860	1983			
	MAGNESIUM*	lb/A	1692	1764			
		ppm	282	294			
	POTASSIUM*	lb/A	624	528			
		ppm	104	88			
	SODIUM*	lb/A	174	138			
		ppm	29	23			
BASE SATURATION PERCENT							
	Calcium	%	54.07	47.19			
	Magnesium	%	13.66	11.66			
	Potassium	%	1.55	1.07			
	Sodium	%	0.73	0.48			
	Other Bases	%	6.00	6.60			
	Hydrogen	%	24.00	33.00			
EXTRACTABLE MINORS							
	Boron* (ppm)		0.64	0.80			
	Iron* (ppm)		170	207			
	Manganese* (ppm)		59	20			
	Copper* (ppm)		2.79	2.98			
	Zinc* (ppm)		1.65	1.01			
	Aluminum* (ppm)		861	845			
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						

d - specific depth

* Mehlich III Extractable