



COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

203 Governor Street, Suite 206
Richmond, Virginia 23219
(804) 786-2064

3/21/2011

Tim Grove
Houff's Feef and Fertilizer
98 Rainside Dr.
Weyers Cave VA, 24487

RE: Nutrient management plan submission: 3/16/2011

Dear Mr. Grove

Your nutrient management plan for biosolids applications on Monte Heatwole's Farm located in Rockingham County in watershed(s) PS32 has been approved by the Department of Conservation and Recreation. Please note that this letter should be kept with the nutrient management plan. Feel free to contact me should you have any questions concerning this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Powell".

Jacob Powell
Biosolids Nutrient Management Program Coordinator
Division of Soil and Water Conservation
(o) (804)-786-2235
(e) jacob.powell@dcr.virginia.gov

cc:
DEQ Valley Regional Office

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 5/20/19 between Cub Run Farm, LC referred to here as "Landowner", and Houff Corporation, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in Rockingham County, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) with county documentation identifying owners, attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>
153-(A)-L38B	153-(1)-L2A		
153-(A)-L73			
153-(A)-L90			

Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one: The Landowner is the sole owner of the properties identified herein.
 The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			

Printed name Cub Run Farm, LC	Mailing Address 3806 Lawyer Rd, McGaheysville, VA 22840	Landowner Signature 
By: <u>Monte Heatmole</u>	Phone No. 540-234-9246	
Title* <u>partner</u>		
<input type="checkbox"/> I certify that I have authority to sign for the landowner as indicated by my title as executor, Trustee or Power of attorney, etc. <input checked="" type="checkbox"/> I certify that I am a responsible official [or officer] authorized to act on behalf of the following corporation, partnership, proprietorship, LLC, municipality, state or federal agency, etc.		

Permittee:

Houff Corporation, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with [§10.1-104.2 of the Code of Virginia](#).

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

Printed name Timothy J. Grove	Mailing Address 97 Railside Drive, Weyers Cave, VA 24486	Permittee- Authorized Representative Signature 
Title Biosolids Manager	Phone No. 540-234-9246	

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Houff Corporation

County or City: Rockingham

Landowner: Cub Run Farm, LC

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

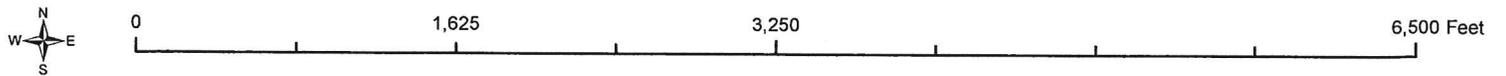
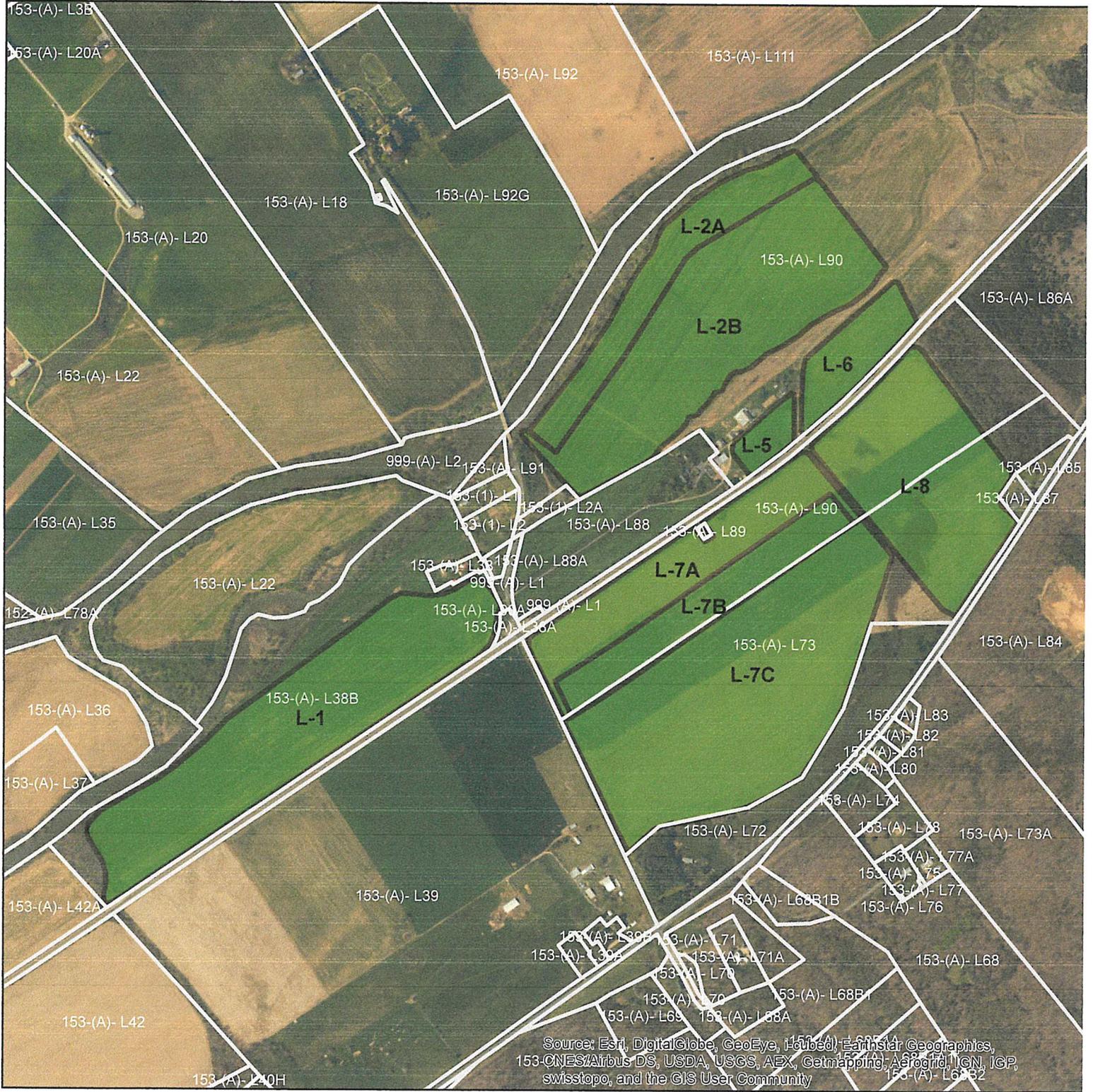
1. **Notification Signs:** I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. **Public Access**
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. **Crop Restrictions:**
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. **Livestock Access Restrictions:**

Following biosolids application to pasture or hayland sites:

 - a. Meat producing livestock shall not be grazed for 30 days,
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).


Landowner's Signature


Date



 Rockingham Tax Parcels - parcel

 LYNWOOD Fields

LAYER: Parcels

Property Card:

NOTE: Property cards are updated

Tax Map #:

153-(1)- L2A

CUB RUN FARM LC

Owner Address:

3806 LAWYER RDMCGAHEYSVILLE,

911 Address:

Primary Zone:

A1

Secondary Zone:

Land Code:

Proffer:

Acres:

Deed Book:

3581

Deed Page:

478

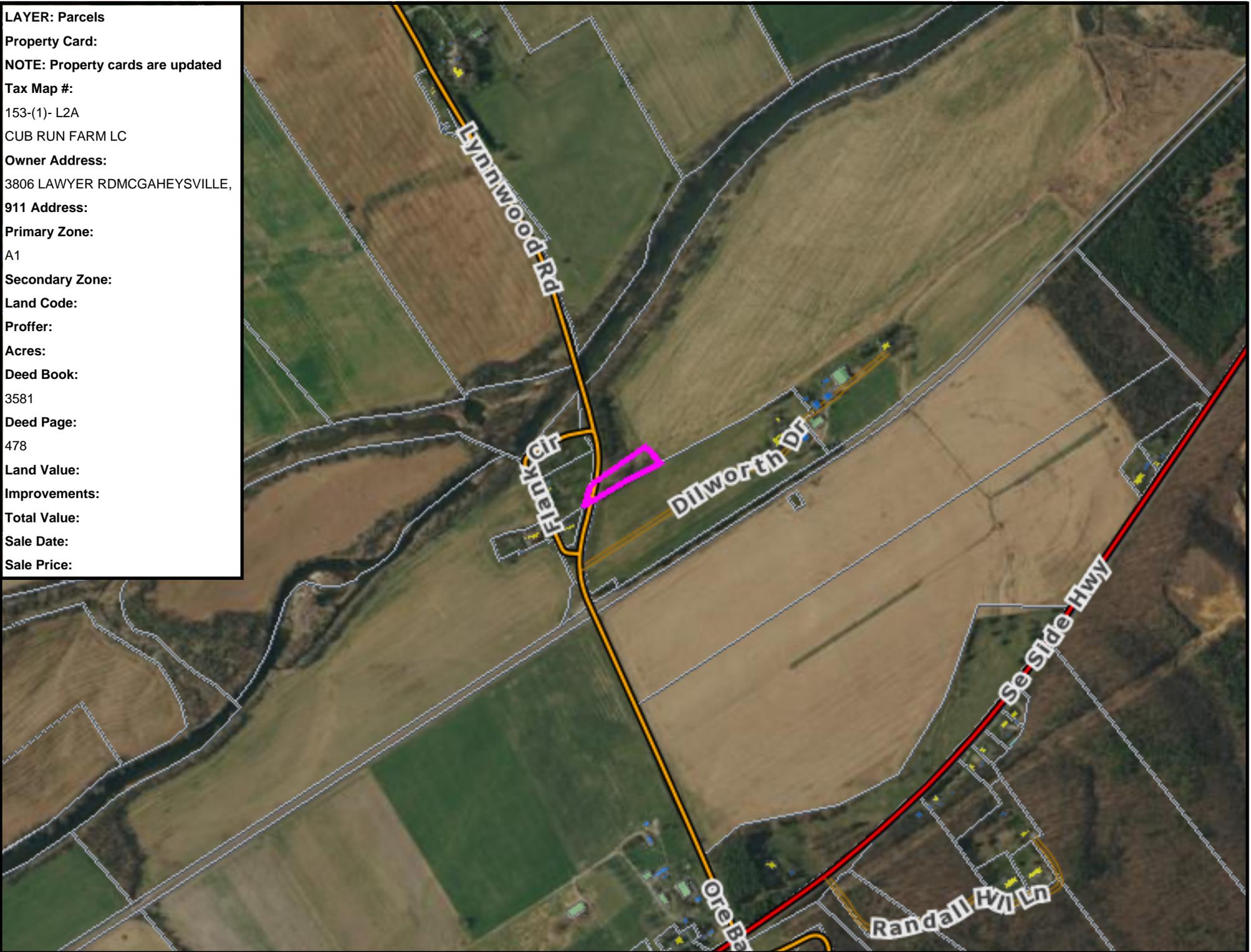
Land Value:

Improvements:

Total Value:

Sale Date:

Sale Price:



LAYER: Parcels

Property Card:

NOTE: Property cards are updated

Tax Map #:

153-(A)- L38B

CUB RUN FARM LC

Owner Address:

3806 LAWYER RDMCGAHEYSVILLE,

911 Address:

Primary Zone:

A1

Secondary Zone:

Land Code:

Proffer:

Acres:

Deed Book:

3491

Deed Page:

76

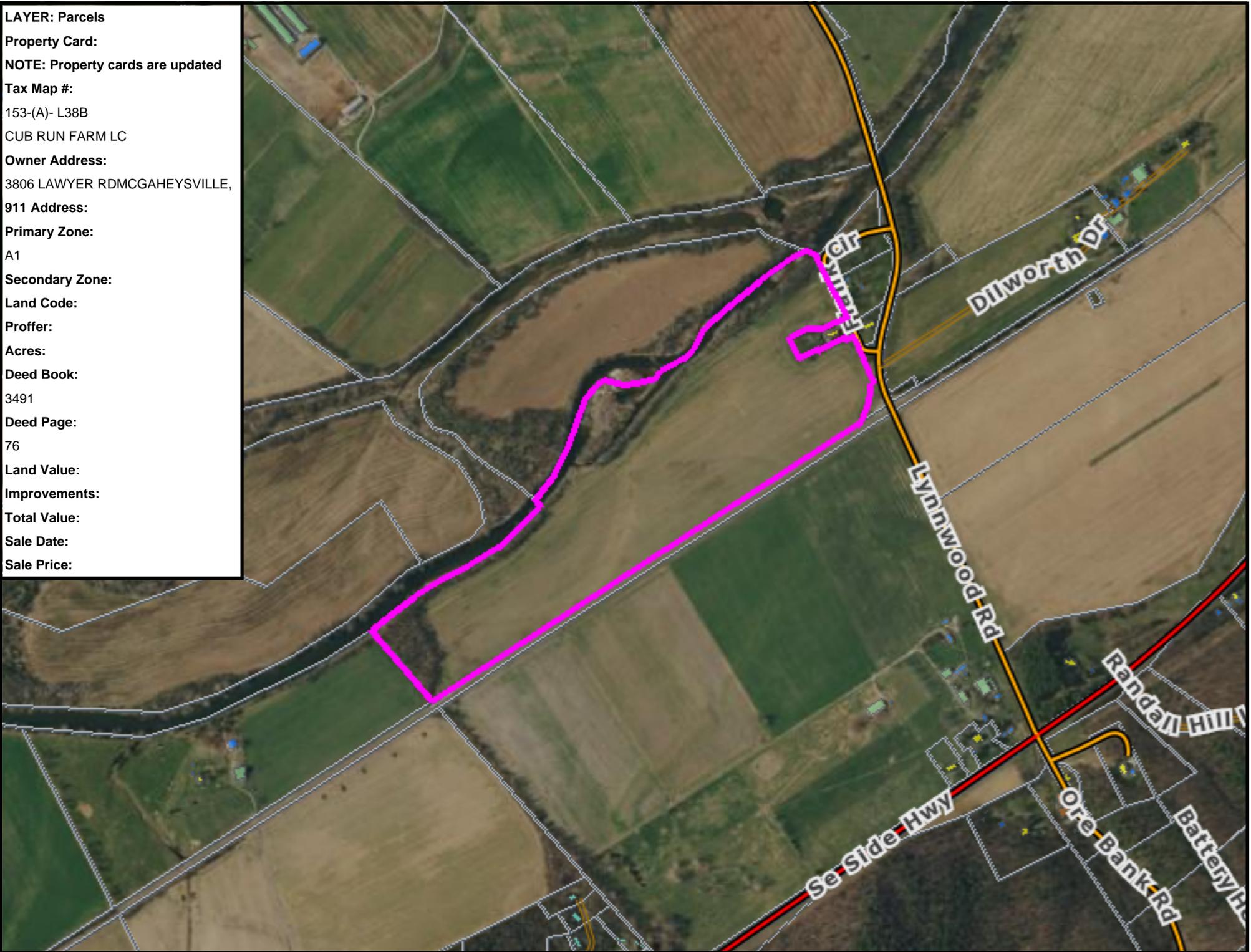
Land Value:

Improvements:

Total Value:

Sale Date:

Sale Price:



LAYER: Parcels

Property Card:

NOTE: Property cards are updated

Tax Map #:

153-(A)- L73

CUB RUN FARM LC

Owner Address:

3806 LAWYER RDMCGAHEYSVILLE,

911 Address:

Primary Zone:

A1

Secondary Zone:

Land Code:

Proffer:

Acres:

Deed Book:

3868

Deed Page:

290

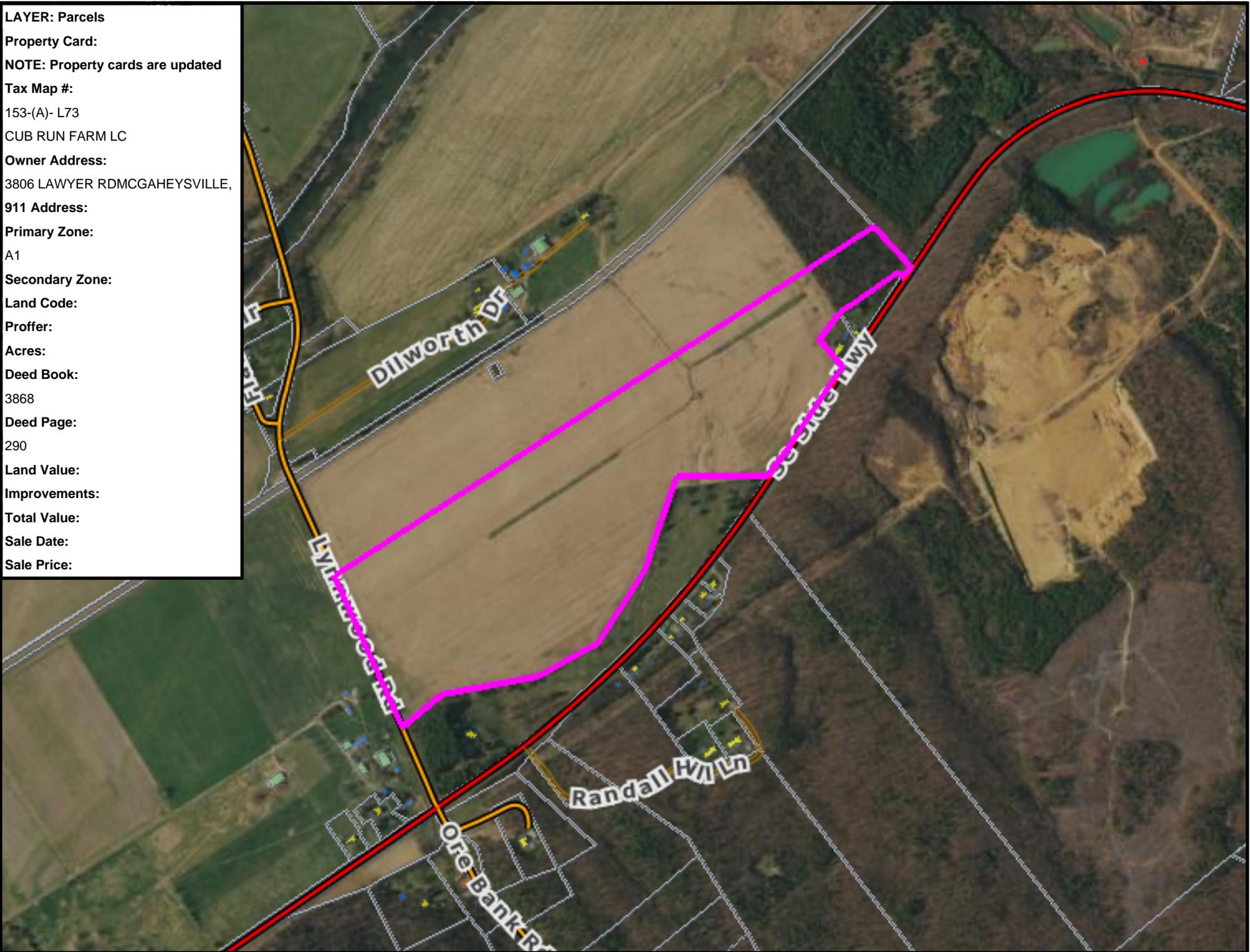
Land Value:

Improvements:

Total Value:

Sale Date:

Sale Price:



LAYER: Parcels

Property Card:

NOTE: Property cards are updated

Tax Map #:

153-(A)- L90

CUB RUN FARM LC

Owner Address:

3806 LAWYER RDMCGAHEYSVILLE,

911 Address:

9000 DILWORTH DR

Primary Zone:

A1

Secondary Zone:

Land Code:

Proffer:

Acres:

Deed Book:

3581

Deed Page:

478

Land Value:

Improvements:

Total Value:

Sale Date:

Sale Price:

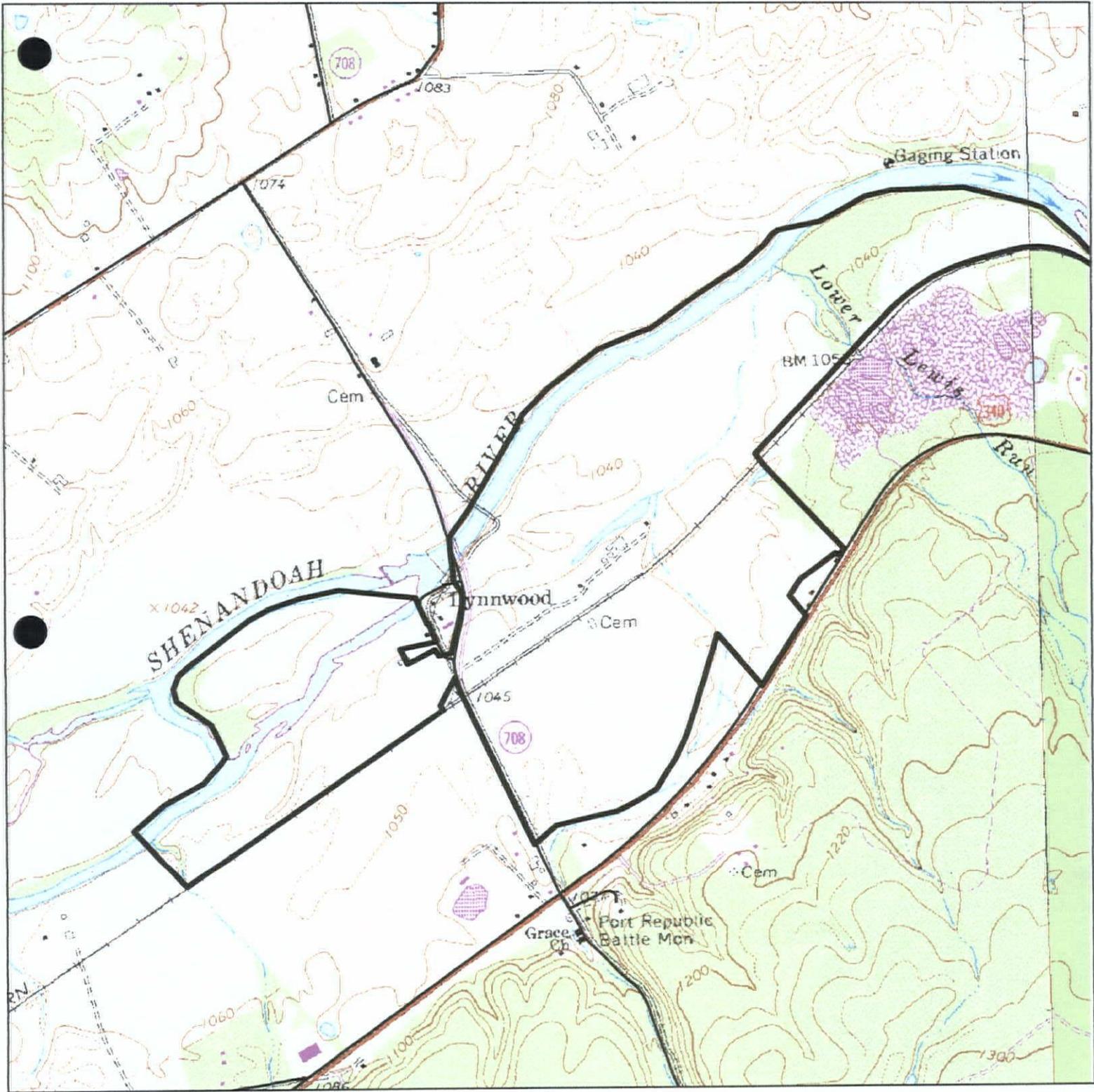
Site: LYNWOOD
Owner: Cub Run Farm, LLC
Operator: Monte Heatwole

General Location Map



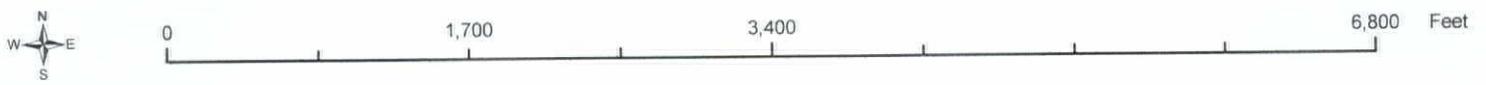
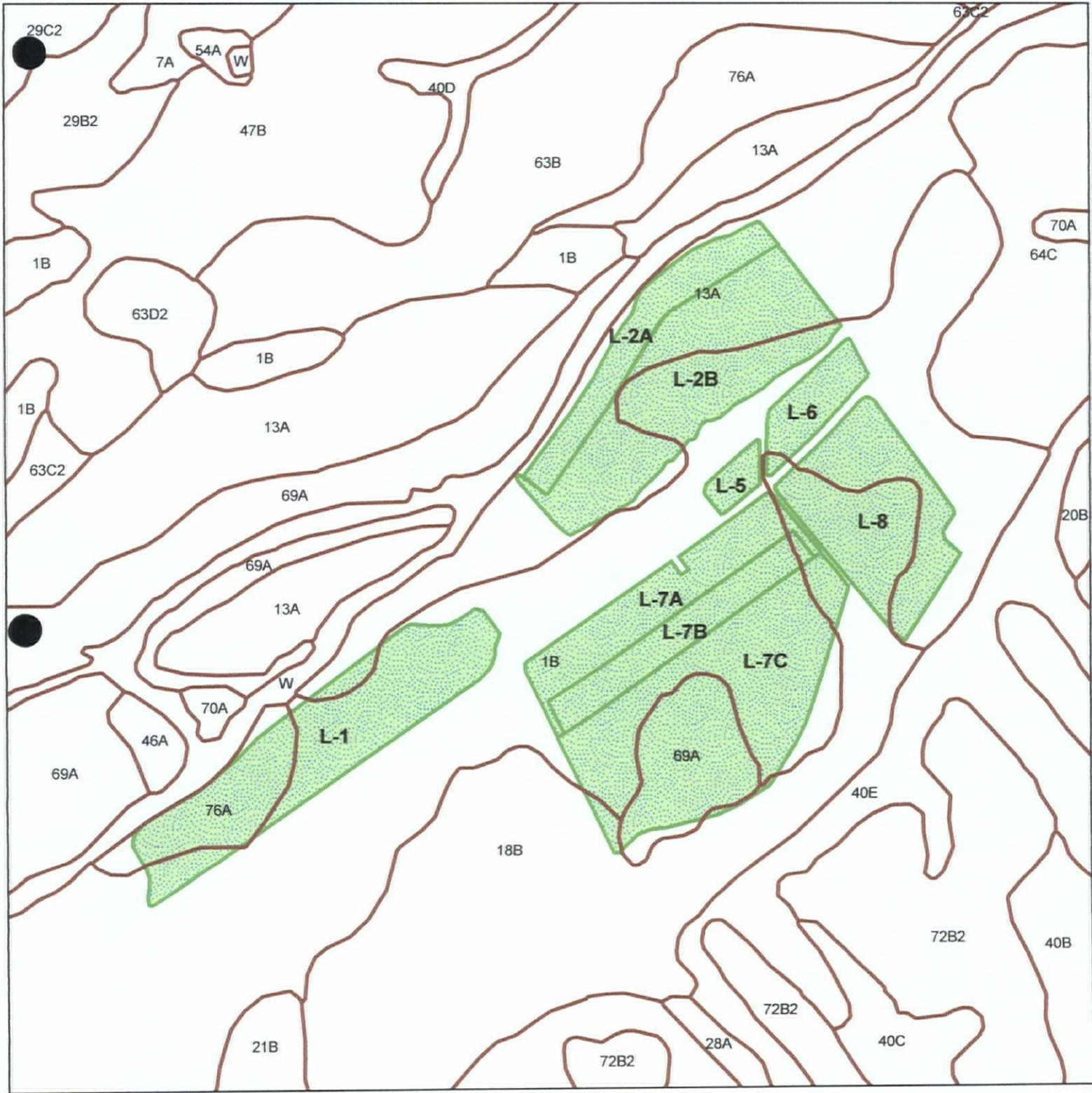
Site: LYNWOOD
Owner: Cub Run Farm, LLC
Operator: Monte Heatwole

Topographic Map



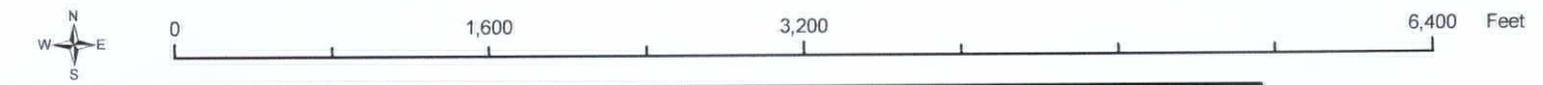
Site: LYNWOOD
Owner: Cub Run Farm, LLC
Operator: Monte Heatwole

Soils Map



	Rockingham Soils
	LYNWOOD Fields





LYNWOOD Streams (50 ft buffer)	LYNWOOD Houses (200 ft buffer)
LYNWOOD Intermittent Streams (25 ft buffer)	LYNWOOD Fields
LYNWOOD Property Lines (100 ft buffer)	LYNWOOD Ponds (50 ft buffer)
LYNWOOD Roads (10 ft buffer)	



Report Number:

R09075-0111

Account Number:

70095

A&L Eastern Laboratories, Inc.

7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401

Fax No. (804) 271-6446 Email: office@al-labs-eastern.com



Send To: HOUFF FEED & FERT
97 RAILSIDE DR
WEYERS CAVE, VA 24486

Grower: CUB RUN FARM

Submitted By: HOUFF FEED & FERT

Farm I D: Field I D:

SOIL ANALYSIS REPORT

Page: 1

Date Received: 3/16/2009

Date of Analysis: 3/17/2009

Date of Report: 3/18/2009

Analytical Method(s):

Mehlich III

Sample Number	Lab Number	Organic Matter				Phosphorus				Potassium		Magnesium		Calcium		Sodium		pH		Acidity		C.E.C.	
		%	ENR lbs/A	Rate		Available ppm	Reserve ppm	Rate		K ppm	Rate	MG ppm	Rate	CA ppm	Rate	NA ppm	Rate	Soil pH	Buffer Index	H meq/100g		meq/100g	
6367 L-1	6367	1.6	7	72	L L	35	M	M		41	VL	99	M	857	M M			5.4	6.7	2.1		7.3	
6368	6368	2.1	8	81	L L	23	L	L		163	H	129	M	1102	M M			6.2	6.8	1.0		8.0	
Sample Number	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum								
	K %	Mg %	Ca %	Na %	H %	NO3-N ppm	SO4-S ppm	ZN ppm	MN ppm	FE ppm	CU ppm	B ppm				ms/cm Rate	CL ppm	AL ppm					
6367 L-1	1.4	11.3	58.9		28.3		9 VL	2.9 M	123 VH	161 VH	1.9 H	0.2 VL											
6368	5.2	13.5	60.1		12.1		8 VL	3.5 H	120 VH	137 VH	2.5 H	0.6 M											

Values on this report represent the plant available nutrients in the soil.
Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).
ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre),
ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).
Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by: A & L EASTERN LABORATORIES, INC.

by: *Paul Chu*
Paul Chu, Ph.D.



www.allabs.com

A&L Eastern Laboratories, Inc.

7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401 Fax (804) 271-6446

Send To: HOUFF FEED & FERT
97 RAILSIDE DR
WEYERS CAVE VA 24486

Grower:
CUB RUN

Farm ID:

SOIL ANALYSIS REPORT

Analytical Method(s):
Mehlich 3

Date Received: 04/19/2010

Date Of Analysis: 04/20/2010

Date Of Report: 04/21/2010

Sample ID Field ID	Lab Number	Organic Matter			Phosphorus			Potassium		Magnesium		Calcium		Sodium		pH		Acidity	C.E.C
		%	Rate	ENR lbs/A	Mehlich 3 ppm	Reserve ppm	Rate	K ppm	Rate	Mg ppm	Rate	Ca ppm	Rate	Na ppm	Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
L-2A	07652	2.7	M	89	62		H	192	H	171	M	1534	H			6.6	6.87	0.6	10.2
L-2B	07653	2.6	M	86	60		H	115	M	163	M	1445	M			5.7	6.69	2.4	11.2
L-3	07654	1.7	L	68	31		M	50	VL	116	L	1809	H			6.4	6.83	1.0	11.1
L-4	07655	2.1	L	75	49		M	52	VL	131	L	2101	VH			6.9	6.91	0.2	11.9
L-5	07656	3.6	M	105	86		H	217	VH	193	M	1402	M			5.6	6.65	2.8	12.0

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	K %	Mg %	Ca %	Na %	H %	NO ₃ N ppm	S ppm	Zn ppm	Mn ppm	Fe ppm	Cu ppm	B ppm	SS ms/cm	Cl ppm	Al ppm
L-2A	4.8	14.0	75.2		5.9		10 L	5.5 H	122 VH	164 VH	2.5 H	0.7 M			
L-2B	2.6	12.1	64.5		21.2		12 L	5.8 H	121 VH	170 VH	3.5 H	0.7 M			
L-3	1.2	8.7	81.5		9.0		8 VL	4.2 H	136 VH	139 VH	2.2 H	0.6 M			
L-4	1.1	9.2	88.3		1.4		8 VL	4.7 H	140 VH	137 VH	2.4 H	0.6 M			
L-5	4.6	13.4	58.4		23.2		13 L	7.3 H	104 VH	209 VH	3.0 H	0.6 M			

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: A&L Eastern Laboratories, Inc.

by: *Paucic McGeary*

Paucic McGeary



A&L Eastern Laboratories, Inc.

7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401 Fax (804) 271-6446

Send To: HOUFF FEED & FERT
97 RAILSIDE DR
WEYERS CAVE VA 24486

Grower:
CUB RUN

Farm ID:

SOIL ANALYSIS REPORT

Analytical Method(s):
Mehlich 3

Date Received: 04/19/2010

Date Of Analysis: 04/20/2010

Date Of Report: 04/21/2010

Sample ID Field ID	Lab Number	Organic Matter			Phosphorus				Potasium		Magnesium		Calcium		Sodium		pH		Acidity	C.E.C
		%	Rate	ENR lbs/A	Mehlich 3 ppm	Rate	Reserve ppm	Rate	K ppm	Rate	Mg ppm	Rate	Ca ppm	Rate	Na ppm	Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
L-6	07657	1.8	L 7	70	69	H		139	H	110	M	1191	M			5.9	6.78	1.5	8.7	
L-7A	07658	1.9	L 7	74	145	VH		134	H	104	L	1377	M			5.8	6.74	1.9	10.0	
L-7B	07659	2.2	L 7	77	234	VH		56	VL	121	L	1764	H			6.1	6.77	1.6	11.6	
L-7C	07660	1.5	L 6	68	171	VH		121	M	88	L	1182	H			6.2	6.83	1.0	7.9	
L-8	07661	1.7	L 7	70	69	H		74	L	144	M	1369	H			6.1	6.80	1.3	9.5	

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	K %	Mg %	Ca %	Na %	H %	NO ₃ N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate	Cl ppm Rate	Al ppm
L-6	4.1	10.5	68.4		17.2		13 L	6.2 H	136 VH	152 VH	2.1 H	0.5 L			
L-7A	3.4	8.7	68.9		19.0		9 VL	7.6 H	134 VH	187 VH	3.0 H	0.4 L			
L-7B	1.2	8.7	76.0		13.7		7 VL	9.2 H	151 VH	218 VH	3.8 VH	0.7 M			
L-7C	3.9	9.3	74.8		12.1		10 L	6.5 H	121 VH	195 VH	2.5 H	0.6 M			
L-8	2.0	12.6	72.1		13.8		8 VL	3.1 M	132 VH	168 VH	3.3 H	0.3 VL			

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: A&L Eastern Laboratories, Inc.

by: *Paucic McGeary*

Paucic McGeary

SEWAGE SLUDGE APPLICATION AGREEMENT

This sludge application agreement is made on this date 12/16/09 between Cub Run Farm, LLC, referred to here as "landowner" and Houff's Feed and Fertilizer Co., Inc., referred to as the "Permittee".

Landowner is the owner of agricultural land shown on the attached maps and designated there as site LWOOD. Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of sewage sludge on landowner's land in amounts and in a manner authorized by VPA Permit number ~~VPA01580~~ which is held by the Permittee. VPA01580

Landowner acknowledges that the appropriate application of sewage sludge will be beneficial in providing fertilizer and soil conditioning to the property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health, the following site restrictions must be adhered to when sewage sludge receives Class B treatment for pathogen reduction:

1. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge;
2. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil;
3. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil;
4. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge;
5. Animals shall not be grazed on the land for 30 days after application of sewage sludge;
6. Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board;
7. Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge;
8. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.
9. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of sewage sludge borne cadmium equal to or exceeding 0.5 kilograms/hectare (0.45 pounds/acre).

Permittee agrees to notify landowner or landowner's designee of the proposed schedule for sludge application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below:

Landowner(s):

Marty Hatcher
Signature

for
Cub Run Farm, LLC

Printed Name
3806 Lawyer Rd

Address
Mc Gaheysville, VA 22840
City, State, Zip

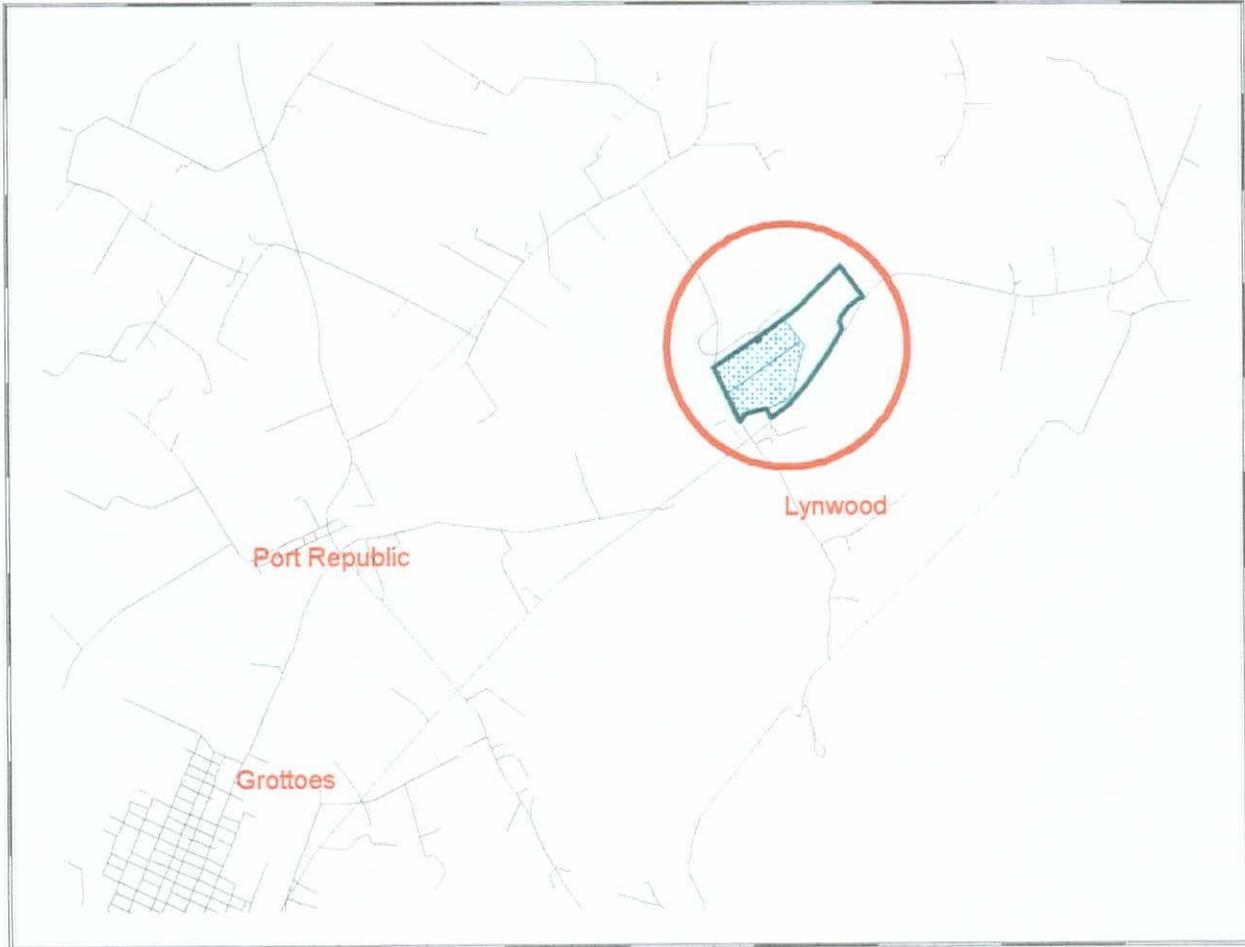
Permittee:

[Signature]
Signature

Houff's Feed & Fertilizer Co., Inc.
97 Railside Dr.
Weyers Cave, Va. 24486

GENERAL LOCATION MAP

Keith Shipe Farm - Lynwood



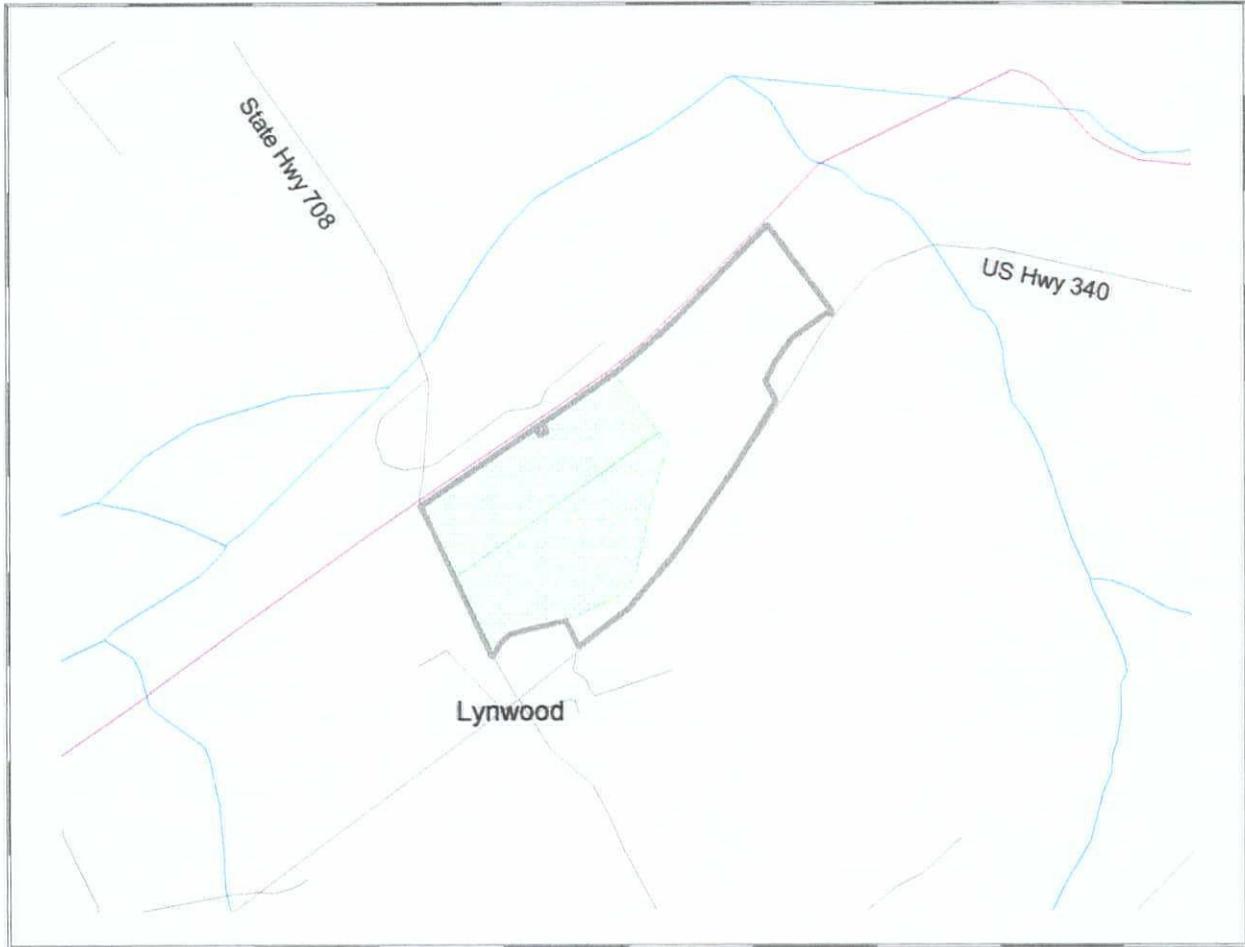
Projection : Universal Transverse Mercator
Datum : WGS Datum (1984)
Zone Number : 17
Hemisphere : North

Scale 1 : 67324
10000 ft



EXHIBIT A - LOCATION MAP
Site LWOOD

Keith Shipe Farm - Lynwood
Lynwood Farms, Inc., Landowner
Keith Shipe, Operator



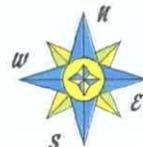
LEGEND

- Property line
- Road
- River/watercourse
- Railroad
- Field



Projection : Universal Transverse Mercator
Datum : WGS Datum (1984)
Zone Number : 17
Hemisphere : North

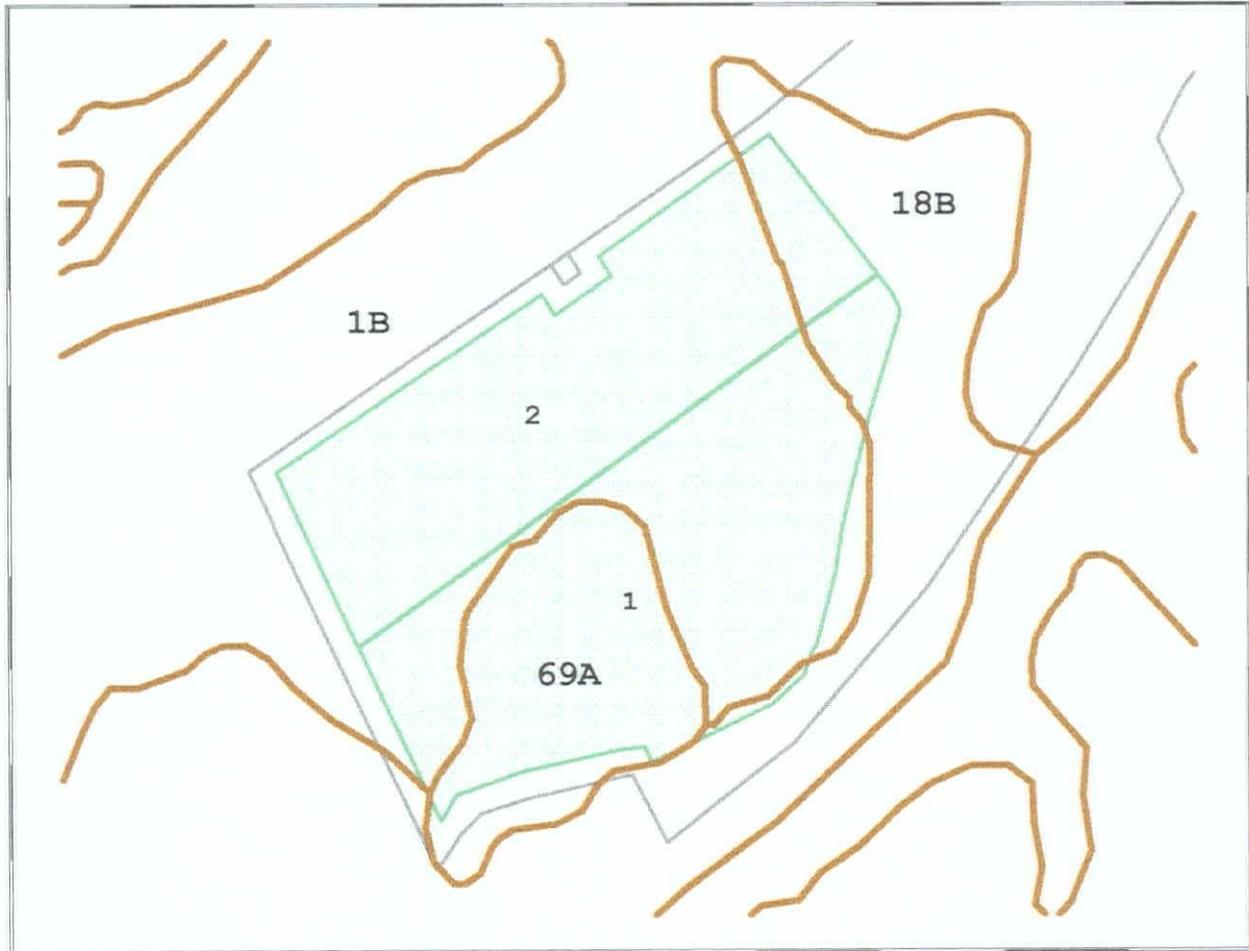
Scale 1 : 24432
5000 ft



THE VISION SYSTEM

EXHIBIT B - SOILS MAP
Site LWOOD

Keith Shipe Farm - Lynwood
Lynwood Farms, Inc., Landowner
Keith Shipe, Operator



LEGEND

- Property line
- Field
- Soils boundary

Large numbers designate soil series,
small numbers designate field.



Projection: Universal Transverse Mercator
Datum: WGS Datum (1984)
Zone Number: 17
Hemisphere: North

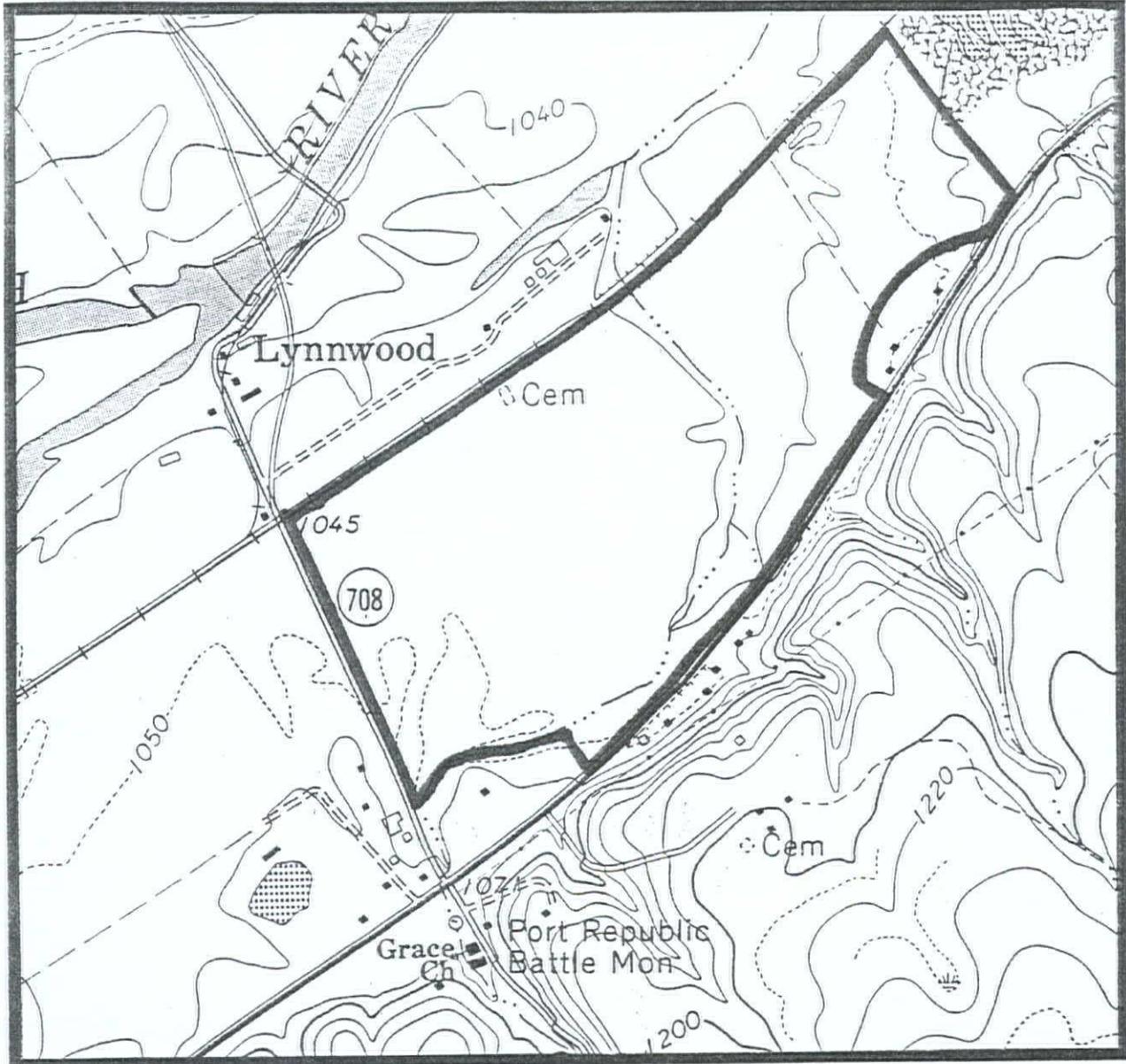
Scale 1 : 9276
1000 ft



THE VISION SYSTEM

EXHIBIT C - TOPOGRAPHIC MAP
Site LWOOD

Keith Shipe Farm - Lynwood
Lynwood Farms, Inc., Landowner
Keith Shipe, Operator





	LWOOD Houses (200 ft buffer)		LWOOD Roads (25 ft buffer)
	LWOOD Property Lines (100 ft buffer)		LWOOD Fields
	LWOOD Intermittent Streams (25 ft buffer)		

