

New York State Department of Environmental Conservation
Division of Materials Management
Albany, New York 12233-7253

2021
PERMITTED FACILITY ANNUAL REPORT
BIOSOLIDS LAND APPLICATION
6 NYCRR Part 361-2

This annual report is for the year of operation from January 01, 2021 to December 31, 2021

Annual Report Form Due: No Later than March 1, 2022

This form is for biosolids land application facilities that are permitted under Subpart 361-2 previously 360-4 of Part 360. Permits for existing permitted facilities issued a permit prior to November 2017 remain in effect until their expiration date, unless a modification or a department-initiated modification is issued.

Forms for all solid waste management facilities can be found at <http://www.dec.ny.gov/chemical/52706.html>. If you have any questions on this form, please e-mail organicrecycling@dec.ny.gov.

Failure to provide the required information requested is a violation of Environmental Conservation Law. Timely submission of a properly completed form to the Department's Regional Office that has jurisdiction over your facility and to the Department's Central Office is required to meet the Annual Report requirements of 6 NYCRR Part 360.

Attach additional sheets if space on the pages is insufficient or supplementary information is required or appropriate.

PERMITTED FACILITY NAME: Leo Dickson & Sons Landspreading Sites and Farm

PERMIT NUMBER: 8-4699-00012/00001

SW FACILITY ACTIVITY NUMBER: (Ex. 35AP0099 or 59L04) 51L05

COUNTY WHERE LAND APPLICATION OCCURS: Steuben

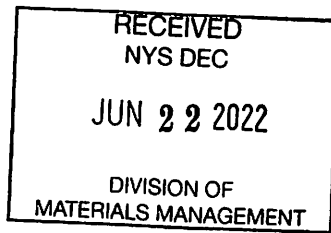
DEC USE ONLY

Region: 7 SWIMS: X
MATRIX:

Date Reviewed:

Reviewed By:

Data Entered:



Permitted Facility Name: Leo Dickson & Sons, Inc.

Permit Number: 8-4699-0012/00001

County Where Land Application Occurs: Steuben

POTW Name: Leo Dickson & Sons, Inc.

POTW Mailing Address: 5226 Bonny Hill Road, Bath, NY 14810

POTW City/Town/Village: Town of Cameron, Thurston, Bath

Operator Telephone: 607-776-7997

Land Application Site Owner Name: Leo Dickson & Sons, Dickson's Environmental Services, Inc., Dickson Landholding, LLC.

Land Application Site Address: 5226 Bonny Hill Road, Bath, NY 14810

Land Application City/Town/Village: Town of Cameron, Thurston, Bath

2021

Permitted Facility

Annual Report

Leo Dickson & Sons, Inc.

8-4699-00012/00001

5226 Bonny Hill Road

Bath, NY 14810

**PERMITTED BIOSOLIDS LAND APPLICATION ANNUAL REPORT
SECTION 1 – FACILITY INFORMATION**

FACILITY INFORMATION

FACILITY NAME:

Leo Dickson & Sons, Inc Landspreading Sites and Farm

FACILITY LOCATION ADDRESS:

5226 Bonny Hill Road

FACILITY CITY:

Bath

STATE:

NY

ZIP CODE:

14810

FACILITY TOWN:

Bath, Cameron, Thurston

FACILITY COUNTY:

Steuben

FACILITY PHONE NUMBER:

607-776-7997

NYSDEC

REGION #: 8

FACILITY CONTACT:

Mary Rayeski

CONTACT PHONE NUMBER:

607-776-7997

CONTACT EMAIL ADDRESS:

mary@dicksonenvironmental.com

OWNER INFORMATION

OWNER NAME:

Leo Dickson Son's, Inc

OWNER PHONE NUMBER:

607-776-7997

OWNER ADDRESS:

5226 Bonny Hill Road

OWNER CITY:

Bath

STATE:

NY

ZIP CODE:

14810

OWNER CONTACT:

Mary Rayeski

OWNER CONTACT EMAIL ADDRESS:

mary@dicksonenvironmental.com

OPERATOR INFORMATION

OPERATOR NAME:

Same as owner

PREFERENCES

Preferred address to receive correspondence: *Facility location address*

Owner address

Other (provide):

Preferred email address: *Facility Contact*

Owner Contact

Other (provide):

Preferred individual to receive correspondence: *Facility Contact*

Owner

Owner Contact

Other (provide):

Did you operate in 2021? **Yes; Complete this form.**

No; Complete and submit Sections 1 and 12. If you no longer plan to operate and wish to relinquish your permit/registration associated with this solid waste management activity, please notify the regional office of your intent. See attachment for Regional Office addresses and contacts.

SECTION 1 (continued) – FACILITY INFORMATION

POTW NAME (if different from facility information above) See Attached		
POTW MAILING ADDRESS:		
POTW CITY/TOWN/VILLAGE:	STATE:	ZIP CODE:
OPERATOR NAME:	OPERATOR TELEPHONE:	OPERATOR EMAIL:

SECTION 2 – TRANSPORTER INFORMATION

NAME OF TRANSPORTER COMPANY: Dickson's Environmental Services, Inc.	
PART 364 NUMBER: 8A-195	TRANSPORTER PHONE NUMBER: 607-776-7997

SECTION 3 – SUMMARY OF APPLICATION INFORMATION

See Attached

Total Acres Land Applied: _____ acres

Total Biosolids Land Applied During Reporting Period: _____ dry tons

Total Biosolids Landfilled During Reporting Period: _____ dry tons

SECTION 4 – BIOSOLIDS ANALYSES

Please attach sampling analyses and laboratory reports for each biosolids source as required under Part 360 or your permit. Copies of original laboratory results must be attached. All results, except pH and Total Solids, must be on a dry weight basis.

**Summarize data in table below or attached document.
Print additional pages as needed.**

Analysis Date =====>					Permit Pre 2017 Regs. Monthly Conc. (mg/kg)	Permit Post 2017 Regs. Max. Conc. (mg/kg)
Arsenic (mg/kg)					41	41
Cadmium (mg/kg)					21	10
Chromium (mg/kg)					1,000	1,000
Copper (mg/kg)					1,500	1,500
Lead (mg/kg)					300	300
Mercury (mg/kg)					10	10
Molybdenum (mg/kg)					40	40
Nickel (mg/kg)					200	200
Selenium (mg/kg)					100	100
Zinc (mg/kg)					2,500	2,500
TKN (mg/kg)						
Ammonia Nitrogen (mg/kg)						
Nitrate (mg/kg)						
Total Phosphorus (mg/kg)						
Total Potassium (mg/kg)						
pH (s.u.)						
Total Solids(%)						
Total Volatile Solids (%)						

SECTION 5 – SOIL ANALYSIS
 (Complete one copy for each field used)

Please attach sampling analyses and laboratory reports as required under Part 360 or your permit. A minimum of one analysis is required for every 50 acres, or fraction thereof. Copies of original laboratory results must be attached. All results, except pH and Total Solids, must be on a dry weight basis.

Summarize data in table below or attached document.
Print additional pages as needed.

Site Owner: See Attached Field Number: _____

Analysis Date ==>				
Arsenic (mg/kg)				
Cadmium (mg/kg)				
Chromium (mg/kg)				
Copper (mg/kg)				
Lead (mg/kg)				
Mercury (mg/kg)				
Molybdenum (mg/kg)				
Nickel (mg/kg)				
Selenium (mg/kg)				
Zinc (mg/kg)				
pH (s.u.)				
Other _____				

SECTION 6 – FIELD APPLICATION RATES

(Complete one copy for each field used)

Site Owner: See Attached

Field Address: _____ Town: _____ Zip Code: _____

Field Number: _____ Field Size: _____ acres

Biosolids Applied: _____ dry tons Acreage Applied To: _____ acres

Application Rate: _____ dry tons/acre

Crop Grown: _____ Remaining Site Life: _____ years

Dates Applied (List All Applications)	Biosolids Applied (dry tons)	Acreage Applied To (acres)	Application Rate (dry tons/acre)

Loading Rates			
Loading Parameters	Current Year (Permit Pre 2017 Regs)	Cumulative (Permit Pre 2017 Regs)	Current Year (Permit Post 2017 Regs)
Hydraulic (gals/acre)			
Available Nitrogen (lbs/acre)			
Phosphorus (lbs/acre)			
Potassium (lbs/acre)			
Cadmium (lbs/acre)			
Chromium (lbs/acre)			
Copper (lbs/acre)			
Lead (lbs/acre)			
Nickel (lbs/acre)			
Zinc (lbs/acre)			

*Attach calculations to support values in the table

SECTION 7 – NEXT YEAR’S PROPOSED QUANTITIES AND APPLICATION RATES

(Complete one copy for each field that will be used)

Site Owner: See attached

Field Address: _____ Town: _____ Zip Code: _____

Field Number: _____ Field Size: _____ acres

Biosolids to be Applied: _____ dry tons

Proposed Application Rate: _____ dry tons/acre

Crop to be Grown: _____

Proposed Loading Rates		
Loading Parameters	Current Year (Permit Pre 2017 Regs)	Current Year (Permit Post 2017 Regs.)
Hydraulic (gals/acre)		
Available Nitrogen (lbs/acre)		
Phosphorus (lbs/acre)		
Potassium (lbs/acre)		

*Attach calculations to support values in the table

SECTION 8 – PATHOGEN REDUCTION/VECTOR ATTRACTION REDUCTION

Check one method for each:

Pathogen Reduction (361-2.5(d)(2)(i))

- Aerobic Digestion ≥ 40 days at ≥ 20 °C or ≥ 60 days at ≥ 15 and < 20 °C
- Air Drying
- Anaerobic Digestion ≥ 15 days at ≥ 35 °C or ≥ 60 days at ≥ 20 and < 35 °C
- Composting 5 consecutive days at > 40 °C, 4 consecutive hours > 55 °C
- Lime stabilization pH raised to 12 for ≥ 2 hours
- Fecal Coliform $< 2,000,000$ MPN
- Other: _____

Vector Attraction Reduction (361-2.5(d)(2)(ii))

- ≥ 38 % Volatile Solids Reduction
- Bench Scale Anaerobic Digestion
- Bench Scale Aerobic Digestion
- SOUR
- Aerobic Process 14 consecutive days, > 40 °C, average > 45 °C
- pH raised to ≥ 12 for 2 hours, ≥ 11.5 for 22 hours
- 75 % solids
- 90 % solids (untreated solids)
- Subsurface injection
- Incorporation within 6 hours
- Other: _____

Attach operating and monitoring data to show compliance with methods chosen.

SECTION 9 – UNAUTHORIZED WASTE

Has unauthorized solid waste been received at the Processing Facility during the reporting period?

Yes No

If yes, give information below for each incident (attach additional sheets if necessary):

Date Received	Type Received	Date Disposed	Disposal Method & Location

SECTION 10 – PROBLEMS/COMPLAINTS

Describe any operational problems or complaints arising from the composting operation and include any methods used to remedy the situations. This should include odor complaints, marketing difficulties, major equipment failure, etc.

No operational problems

Section 11 – QUESTIONS

Please identify any questions or concerns that you would like the Department to answer or consider:

As of July 1, 2022 the permit will be transferred to Casella.

Table of Contents

Contents

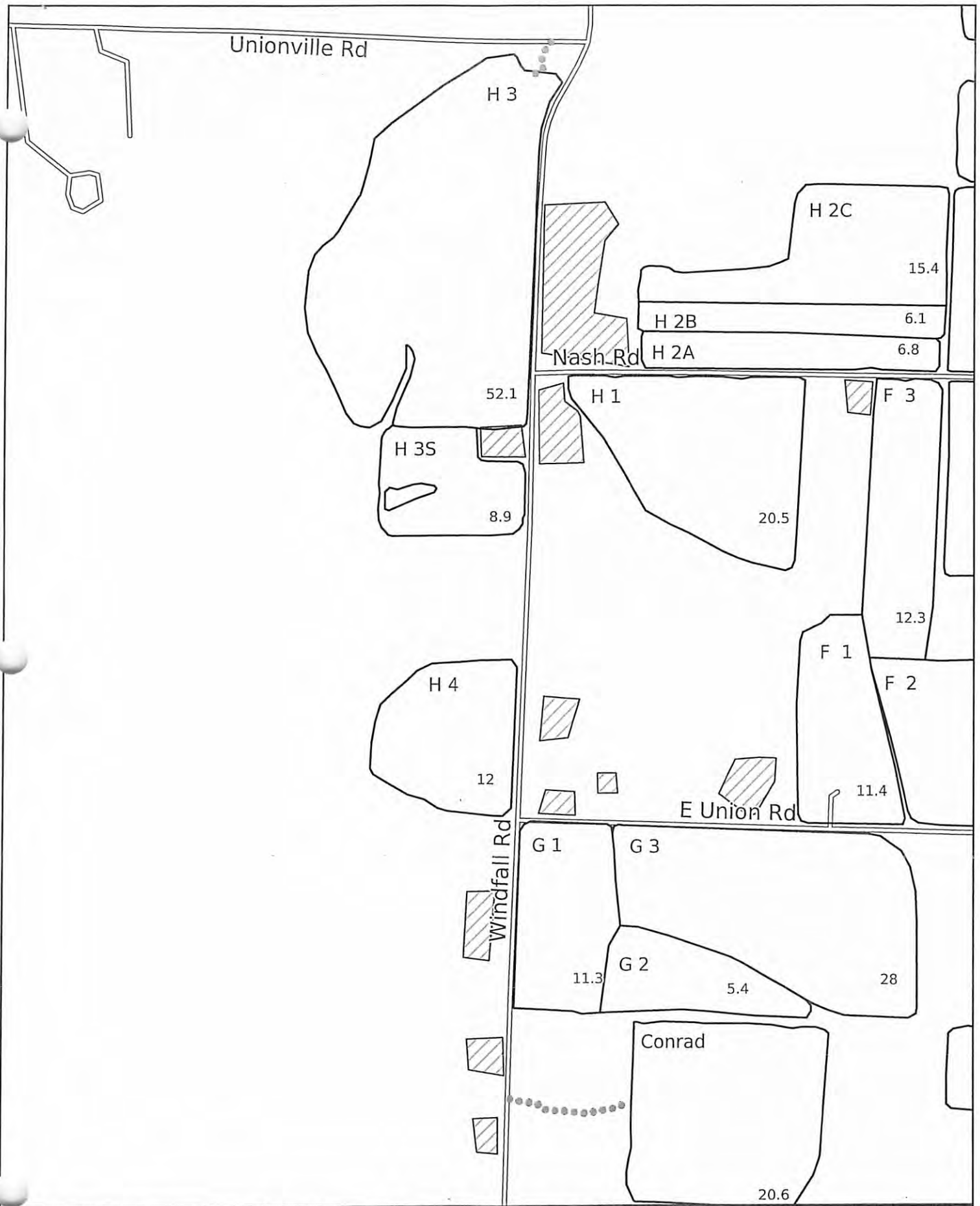
Overview.....	1
2021 Land Application Data.....	2
1. Field Maps	
2. Soil and Analytical Data	
3. Crop Planting and Harvesting	
4. Land Application Data	
2021 Nutrient /Crop Management Plan.....	3
1. Field Maps (Include Crop Recs for 2022)	
2. Spreading Recommendations	
3. Soil and Analytical Data	
Certification Statement.....	4
1. Certification Statement	

Overview

In accordance with the requirements of Article 27, Title 7; 6NYCRR 360: Solid Waste Management, an annual report shall be submitted to the Region 8 office of New York State Department of Environmental Conservation. During the reporting period January 1, 2021 to December 31, 2021 facilities under permit #51L05 were used for land application from approved sources listed on permit number 8-4699-00012/00001, and manure from Leo Dickson & Sons dairy farm.

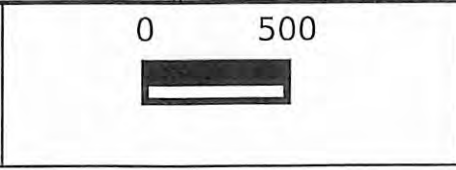
Leo Dickson & Sons, conducted business under the guidance of Western New York Crop Management (WNYCM). WNYCM provides a crop and nutrient plan. WNYCM also is responsible for all soil sampling and updating the crop and nutrient plan as changes occur. WNY also assist with challenges and or difficulties and assist with the development of a corrective action plans as needed. Ultimately it is Dickson's responsibility to effectively manage the land spreading by following the plan to provide WNYCM most accurate land application reports and analytical data on products spreading.

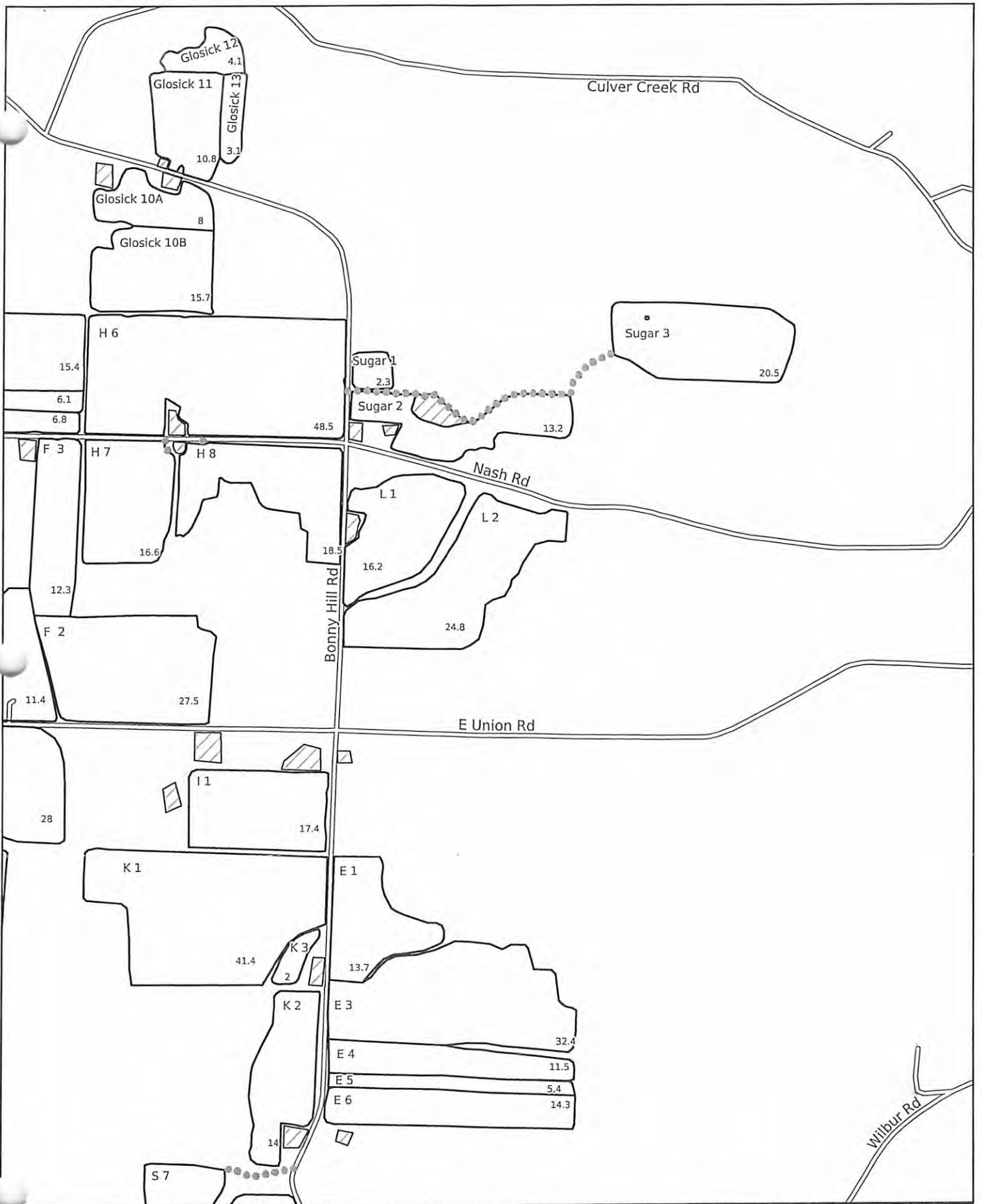
2021 Land Application Data



Leo Dickson & Sons
 Map #1
 Farm #953

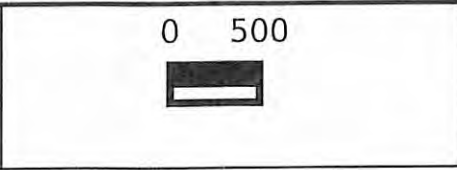
Field Maps
 05-13-2022

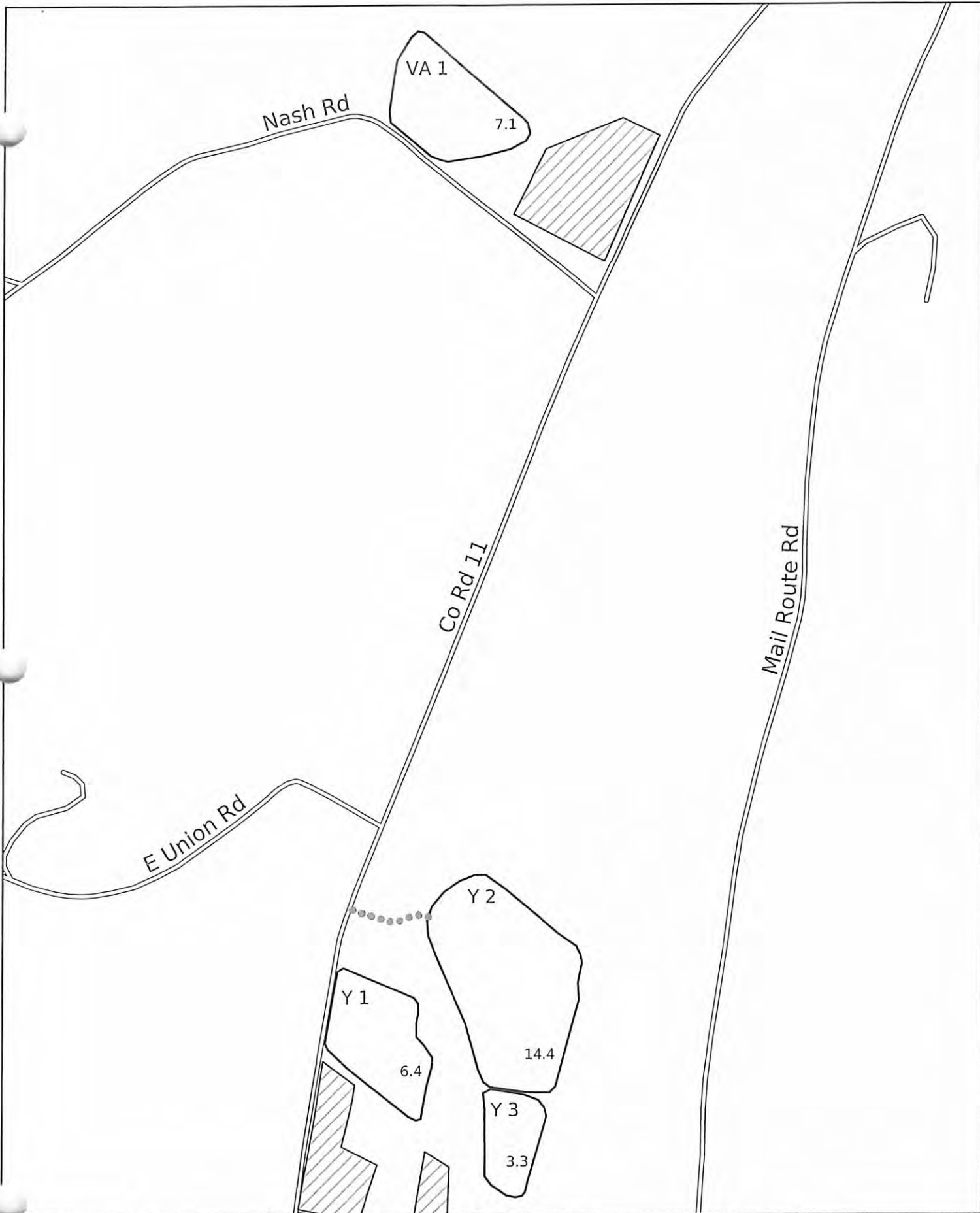




Leo Dickson & Sons
 Map #2
 Farm #953

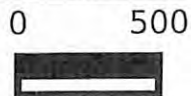
Field Maps
 05-13-2022

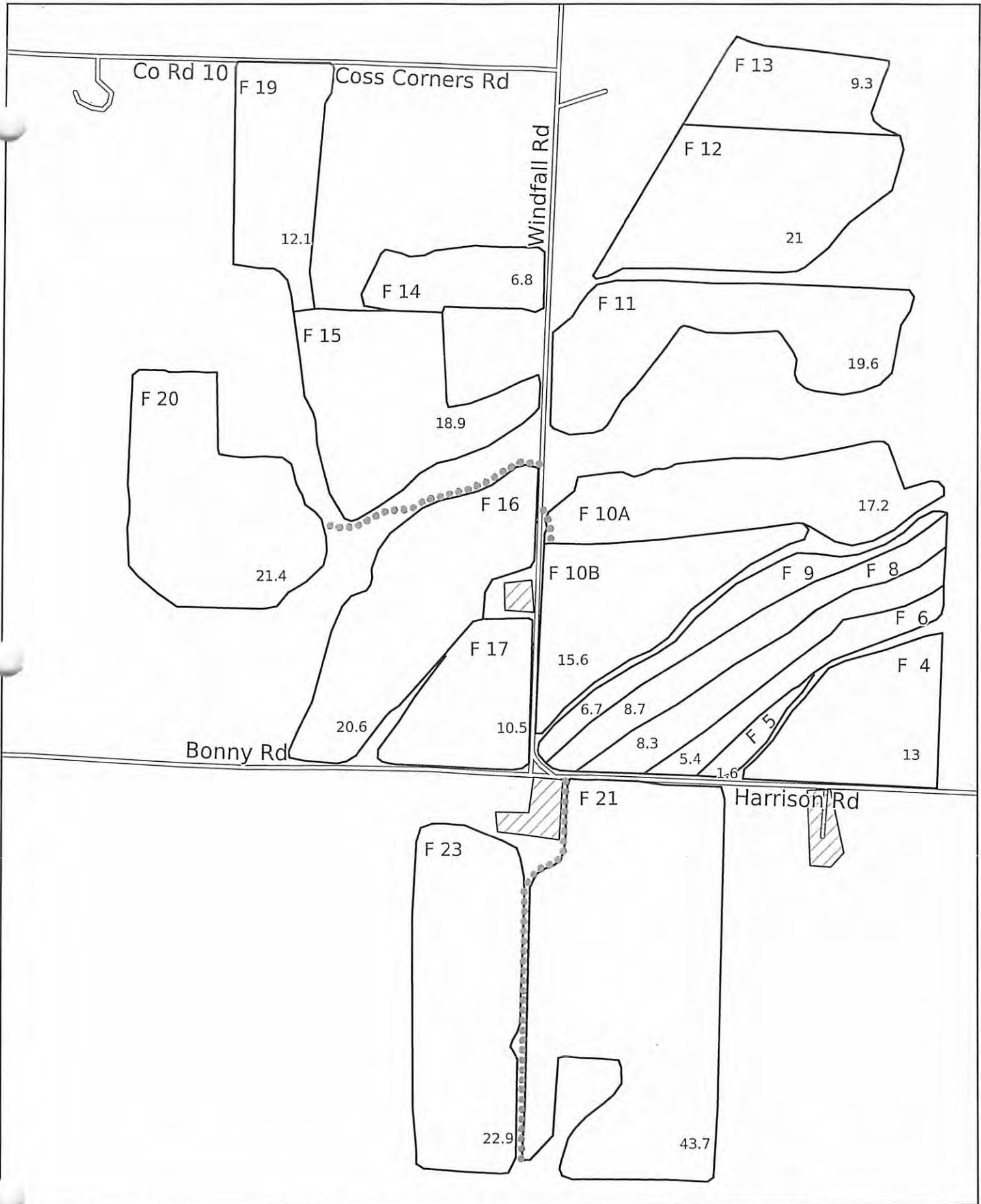




Leo Dickson & Sons
Map #3
Farm #953

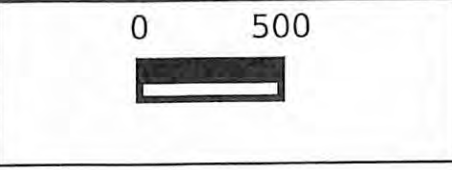
Field Maps
05-13-2022

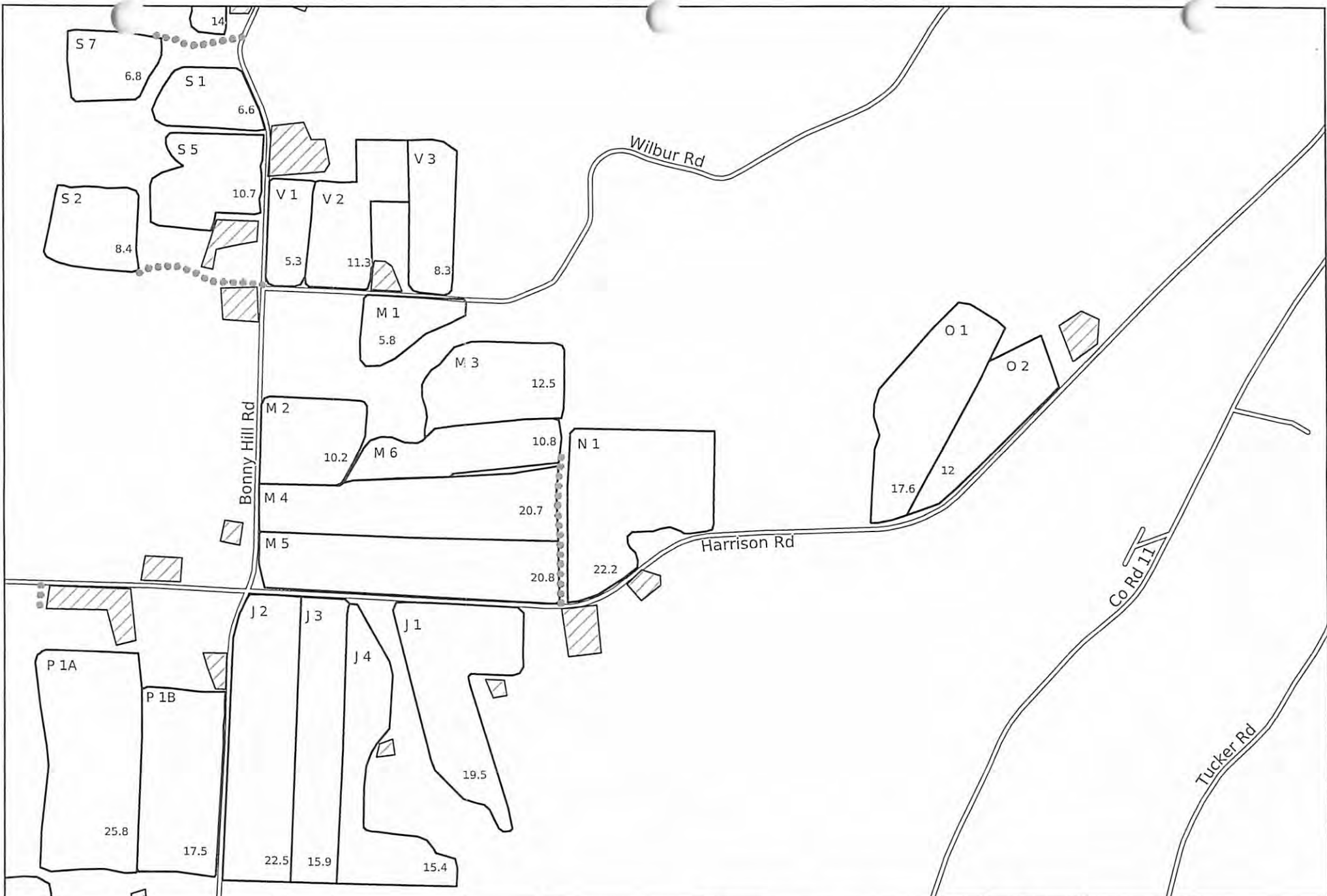




Leo Dickson & Sons
 Map #4
 Farm #953

Field Maps
 05-13-2022

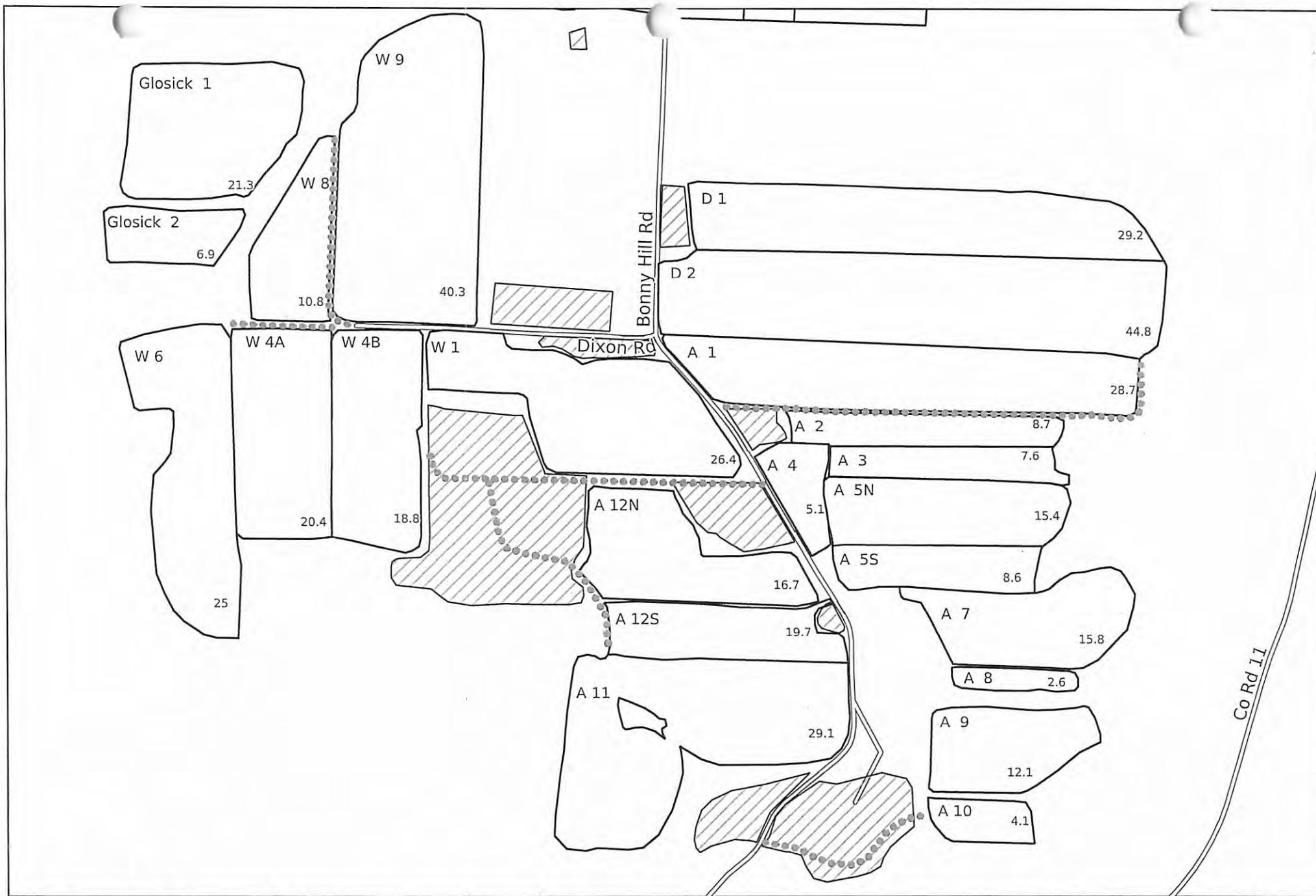




Leo Dickson & Sons
 Map #5
 Farm #953

Field Maps
 05-13-2022



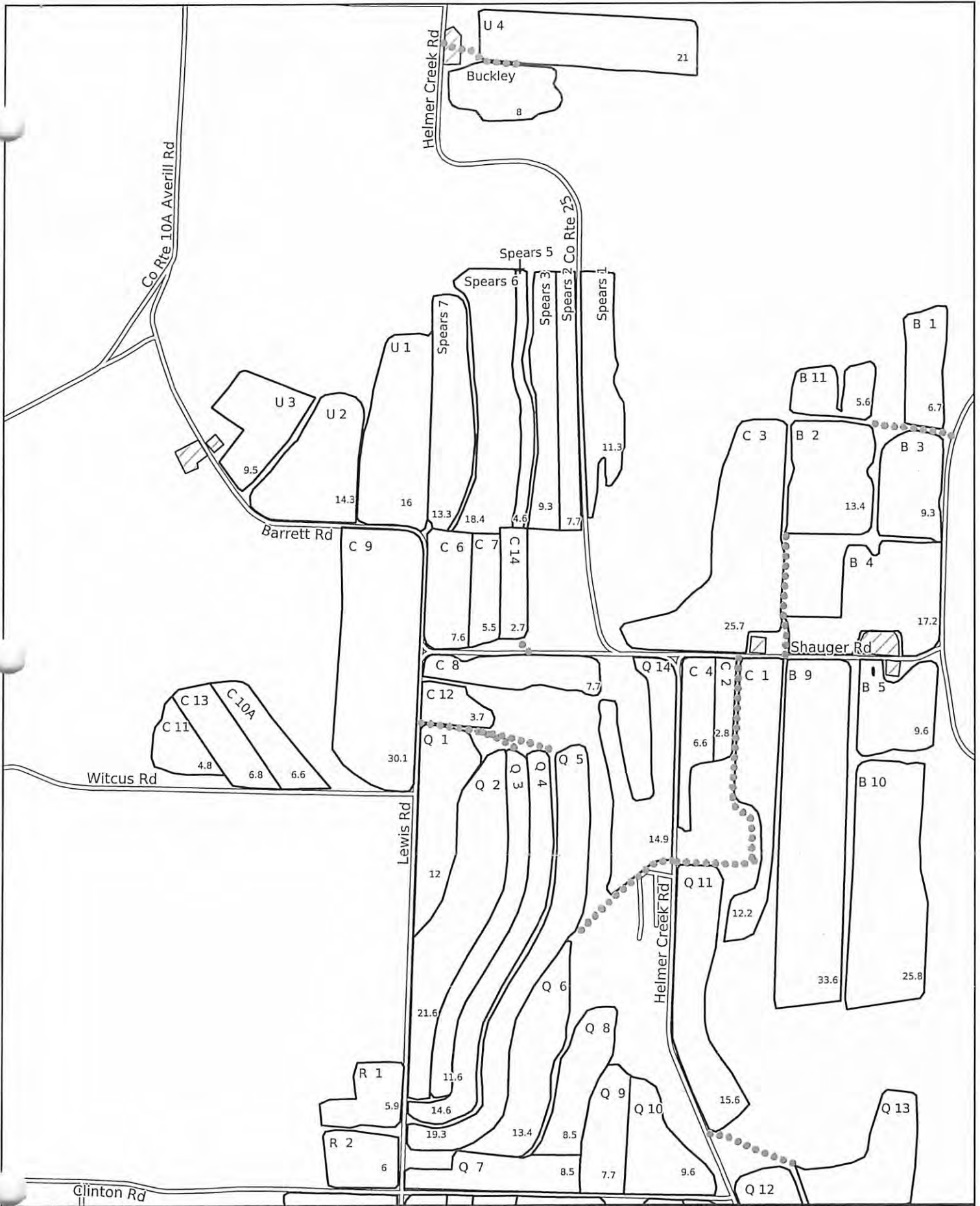


Leo Dickson & Sons
 Map #6
 Farm #953

Field Maps
 05-13-2022

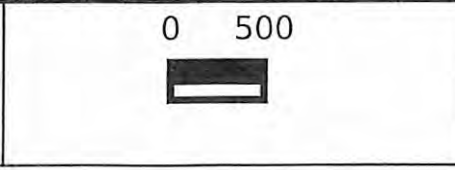
0 500 ft

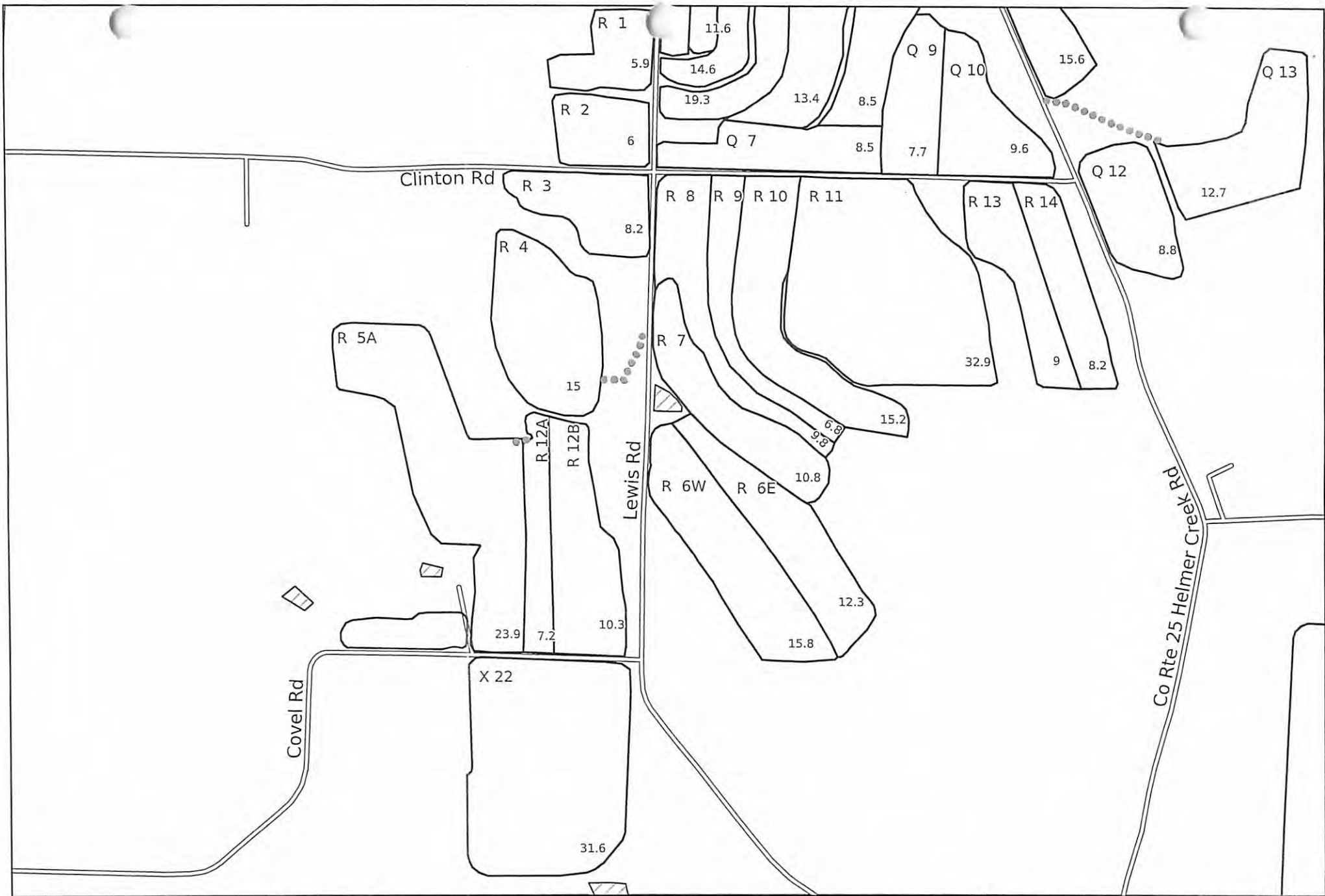




Leo Dickson & Sons
 Map #7
 Farm #953

Field Maps
 05-13-2022





Leo Dickson & Sons
 Map #8
 Farm #953

Field Maps
 05-13-2022

0 500 ft



Shauger Rd

Bonny Hill Rd

Co Rd 11

Babcock Hollow Rd

Shauger Rd

B 13
4.4

B 15
8.1

B 14
4.9

B 12
7.6

B 16
5.3

B 8
4.9

B 6
25.4

B 17
12.1

Leo Dickson & Sons
Map #9
Farm #953

Field Maps
05-13-2022

0 500



Co Rd 11

Mc Intosh Rd

Tucker 6

5.7

Tucker 5

10.1

Tucker 4

11.2

Tucker 3

9.8

Tucker 1

11.1

Tucker 2

6.1

Tucker Rd

Z 1A

50.3

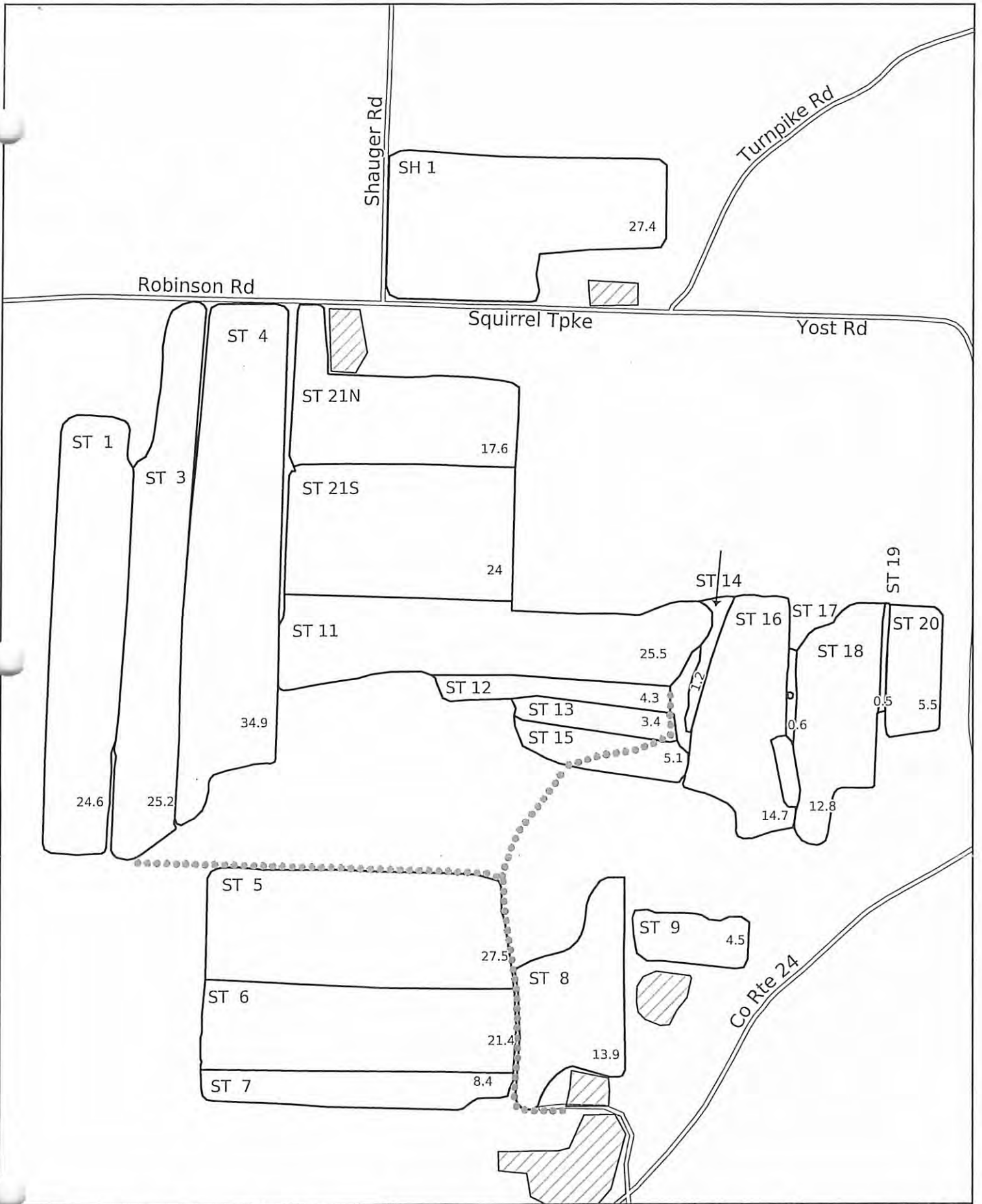
Griffin Rd

Leo Dickson & Sons
Map #10
Farm #953

Field Maps
05-13-2022

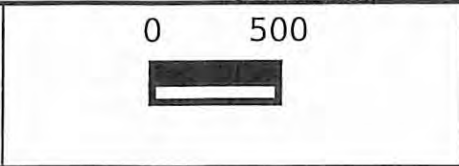
0 500 ft

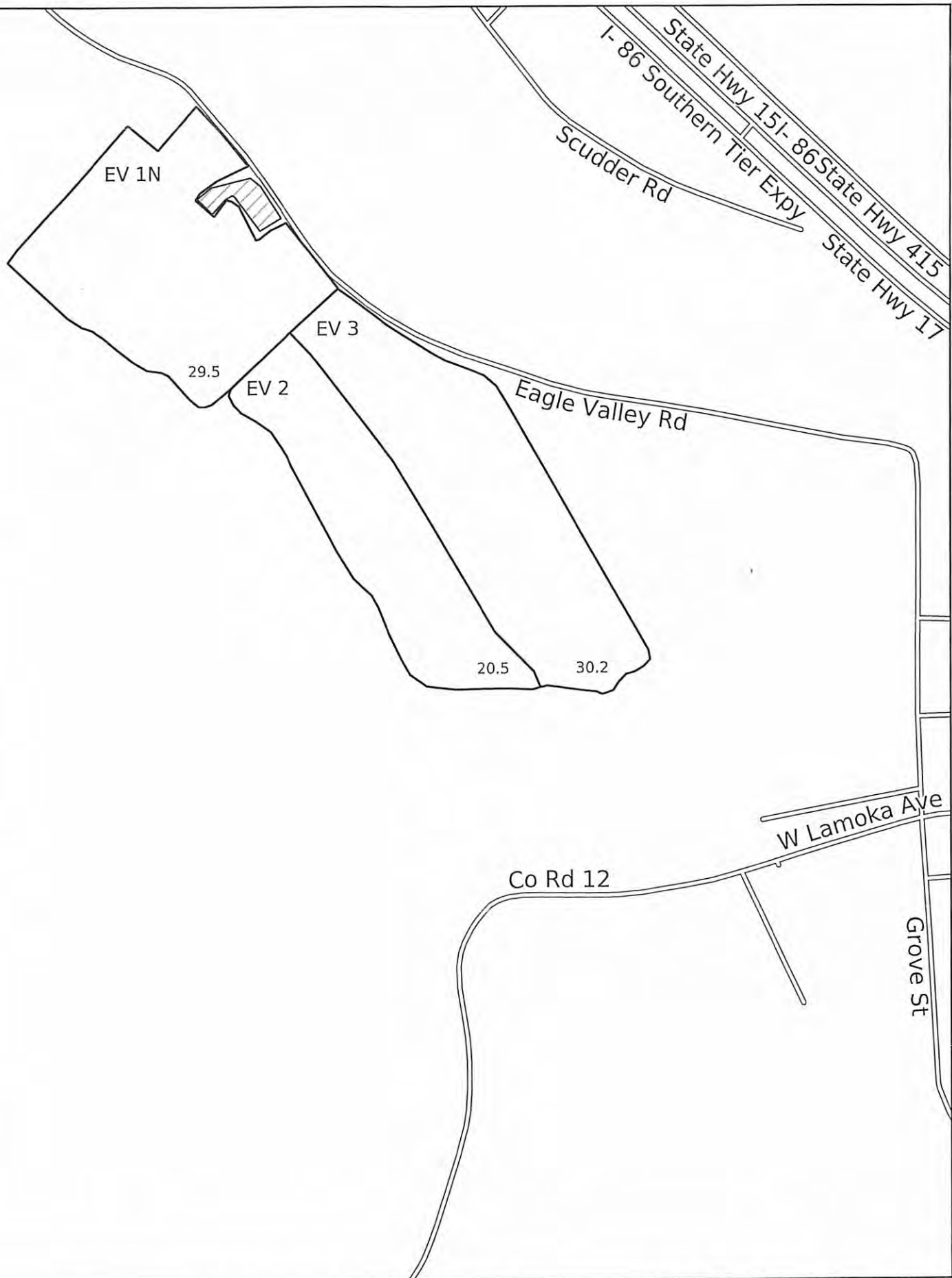




Leo Dickson & Sons
 Map #11
 Farm #953

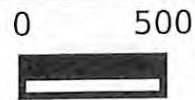
Field Maps
 05-13-2022





Leo Dickson & Sons
 Map #12
 Farm #953

Field Maps
 05-13-2022



Date	Source	Gallons	Tons	Field	Machine	Operator	
1/8/2021	Heifer Barn	15000		R11	9105	Ks	
1/19/2021	Heifer Barn	4,500.00		R 11	9105	KS	Top Spread
1/19/2021	Heifer Barn	22,500.00		R 11	9105	KS	Top Spread
1/21/2021	P1	51,000.00		E 3	9105	KS	Top Spread
1/22/2021	P1	25,500.00		E 3	9105	KS	Top Spread
1/25/2021	P1	76,500.00		E-3	9105	KS	Top Spread
1/26/2021	P1	31,500.00		K1	9105	KS	Top Spread
1/28/2021	P1	58,500.00		K1	9105	KS	Top Spread
2/4/2021	Heifer Barn	20000.00		Q11	9105	KS	Top Spread
3/10/2021	Heifer Barn	25,000.00		R11	KS	Ks	Top Spread
3/10/2021	Dairy Barn	40,000.00		K1	KS	Ks	Top Spread
3/11/2021	Dairy Barn	72,000.00		E3	9105	KS	Top Spread
3/11/2021	Dairy Barn	16,000.00		K1	9105	KS	Top Spread
3/12/2021	Dairy Barn	32,000.00		N1	9105	KS	Top Spread
3/12/2021	Dairy Barn	32,000.00		O1	9105	KS	Top Spread
3/13/2021	Dairy Barn	24,000.00		O1	9105	KS	Top Spread
3/13/2021	Dairy Barn	40,000.00		N1	9105	KS	Top Spread
3/14/2021	Dairy Barn	40,000.00		O2	9105	KS	Top Spread
3/16/2021	Dairy Barn	36,000.00		Sugar 2	9105	KS	Top Spread
3/17/2021	Dairy Barn	36,000.00		Sugar 3	9105	KS	Top Spread
3/22/2021	Dairy Barn	40,000.00		F 19	9105	KS	Top Spread
3/22/2021	Dairy Barn	72,000.00		Glosik	9105	KS	Top Spread
3/23/2021	Dairy Barn	112,000.00		Eagle Valley	9105	KS	Top Spread
3/24/2021	Dairy Barn	120,000.00		Eagle Valley	9105	KS	Top Spread
3/25/2021	Dairy Barn	72,000.00		Eagle Valley 2&3	9105	KS	Top Spread
3/26/2021	Dairy Barn	112,000.00		Eagle Valley 2&3	9105	KS	Top Spread
3/27/2021	Dairy Barn	56,000.00		Eagle Valley 2&3	9105	KS	Top Spread
5/11/2021	P1	34,000.00		EV 2	Quad	KS	Top Spread
5/11/2021	P1	32,000.00		EV 3	Quad	KS	Top Spread
5/11/2021	P1	36000.00		EV 2	Quad	KS	Top Spread
5/13/2021	P1	48000.00		EV 3	Quad	KS	Top Spread
5/14/2021	P1	44000.00		EV 2	Quad	KS	Top Spread
5/17/2021	Dairy	50,000.00		EV	Quad	KS	Top Spread
5/18/2021	Dairy	50,000.00		Z1a	Quad	KS	Top Spread
5/19/2021	Dairy	50,000.00		Z1a	Quad	KS	Top Spread
5/20/2021	Dairy	24,000.00		Z1a	Quad	KS	Top Spread
5/20/2021	Dairy	88,000.00		Tucker 5	Quad	KS	Top Spread
5/21/2021	Dairy	45,000.00		Tucker 1	Quad	KS	Top Spread
6/21/2021	Heifer barn	18000.00		C11	9105	KS	top spread
6/28/2021	P1	25,500.00		F13	spread trlr	DB	top spread
6/28/2021	P1	25,500.00		F 13	spread trlr	DB	top spread
6/29/2021	P1	25,500.00		F 13	spread trlr	DB	top spread
6/29/2021	P1	7,500.00		M3	9105	KS	top spread
6/30/2021	P1	7,500.00		M3	spread trlr	DB	top spread
6/30/2021	P1	13,500.00		E4	9105	KS	top spread
6/30/2021	P1	32,000.00		E1	spread trlr	DB	top spread
6/30/2021	P1	32,000.00		I1	spread trlr	DB	top spread
6/30/2021	P1	16,000.00		H 2A	spread trlr	DB	top spread
6/30/2021	P1	21,000.00		M3	9105	KS	top spread
7/1/2021	P1	22,500.00		E4	9105	KS	top spread
7/2/2021	Heifer Barn	11000.00		c11	9105	KS	Top Spread
8/3/2021	P1	25000		P1A	9105	ks	
8/4/2021	p1	25000		P1A	9105	ks	
8/6/2021	P1	25000		P1a	9105	KS	
8/9/2021	P1	15000		Glosick 11	9105	KS	
8/10/2021	P1	15000		Glosick 10A	9105	Ks	
8/11/2021	P1	15000		Gsolck 10B	9105	KS	
8/17/2021	Dairy Barn	20000		P1A	9105	KS	
8/20/2021	Dairy Barn	20000		P1A	9105	Ks	
8/23/2021	Dairy Barn	20000		P1A	9105		
8/27/2021	P1	80000		J1	custom spread		
11/21/2021	P1	99,200.00		F2	Quad	KS	
11/22/2021	P1	86,800.00		E3	Quad	KS	
11/23/2021	P1	62,000.00		F19	Quad	KS	
11/23/2021	P1	93,000.00		F15	Quad	KS	
11/24/2021	P1	24,800.00		F11	Quad	KS	
11/24/2021	P1	111,600.00		F10 B	Quad	KS	
11/26/2021	P1	49,600.00		F4	Quad	KS	
12/1/2021	P1	83,200.00		J 2	Quad	KS	
12/1/2021	P1	51,200.00		J4	Quad	KS	
12/2/2021	Dairy	89,600.00		A 7	Quad	KS	
12/2/2021	Dairy	6,400.00		A7	Quad	KS	
12/2/2021	Dairy	12,800.00		W9	Quad	KS	
12/9/2021	Dairy	168,000.00		Glosick 11,12,13,	Quad	KS	
12/10/2021	Dairy	88,000.00		L 2	Quad	KS	

Date	Source	Type	Tons	Gallons	Detination	Date	Field
1/2/2021	DFA	sludge	9		p2		
1/4/2021	DFA	sludge	6.29		p2		
1/8/2021	DFA	sludge	7.97		p2		
1/11/2021	DFA	sludge	14.17		P2		
1/13/2021	Dryden	sludge	21.12		cement pad	3/10/2021	N1
1/14/2021	DFA	sludge	13.97		P2		
1/15/2021	DFA	wastewater		8,000.00	P2		
1/16/2021	DFA	wastewater		16,300.00	P2		
1/18/2021	DFA	wastewater		24,300.00	P2		
1/20/2021	DFA	sludge	14.23		P2		
1/22/2021	DFA	sludge	12.87		P2		
2/8/2021	DFA	sludge	11.11		P2		
2/10/2021	Leprino	wastewater		5,000.00	p2		
2/12/2021	Quest	wastewater		7,000.00	P2		
2/17/2021	Quest	wastewater		5,000.00	p2		
2/19/2021	Leprino	wastewater		2,500.00	p2		
2/24/2021	DFA	Sludge	12.58		P2		
3/3/2021	DFA		6.89		P2		
3/9/2021	DFA	sludge	16.43		P2		
3/11/2021	Leprino	wastewater		5,000.00	P2		
3/16/2021	Leprino	wastewater		5,000.00	p2		
3/18/2021	Quest	wastewater		5,500.00	p2		
3/22/2021	Quest	wastewater		5,200.00	p2		
3/24/2021	DFA	wastewater		5,500.00	P2		
4/5/2021	Cayuga Hgts	sludge	15.9		cement pad	3/10/2021	N1
4/5/2021	Canisteo	sludge	17.79		cement pad	4/5/2021	St5
4/5/2021	Owego	sludge	20		cement pad	4/5/2021	St5
4/7/2021	DFA	sludge	15.54		p2		
4/7/2021	Owego Town	sludge	40		cement pad	4/7/2021	St6
4/7/2021	Watkins	sludge	18.34		cement pad	4/7/2021	St6
4/9/2021	Cayuga Hgts	sludge	15.68		cement pad	4/9/2021	St7
4/9/2021	Watkins	sludge	19.56		cement pad	4/9/2021	St7
4/9/2021	Owego	sludge	40		cement pad	4/9/2021	St4
4/13/2021	Owego	sludge	20		cement pad	4/14/2022	St4
4/14/2021	Owego	sludge	20		cement pad	4/14/2022	St5
4/14/2021	Owego	sludge	20		cement pad	4/14/2022	St6
4/20/2021	Watkins	sludge	15.53		cement pad	5/26/2021	St5
4/20/2021	Dryden	sludge	17.95		cement pad	5/26/2021	St5
4/22/2021	Watkins	sludge	17.11		cement pad	5/27/2021	St6
4/22/2021	Cayuga Hgts	sludge	14.53		cement pad	5/27/2021	St6
4/30/2021	DFA	wastewater		30,000.00	P2		
5/17/2021	DFA	wastewater		30,000.00	P2		
5/19/2021	Leprino			1,500.00	P2		
5/21/2021	Quest	wastewater		5,000.00	P2		
6/1/2021	Waverly	sludge	16.6		cement pad	17-Jun	St4
6/2/2021	Cayuga Hgts	sludge	15.16		cement pad	17-Jun	St4
6/3/2021	Quest	wastewater		16,400.00	p2		
6/4/2021	Perry	sludge	36.47		cement pad	17-Jun	St4
6/4/2021	Cayuga Hgts	sludge	15.47		cement pad	17-Jun	St4
6/4/2021	Quest	wastewater		4,200.00	p2		
6/4/2021	Perry	sludge	36.47		cement pad	19-Jun	St5
6/4/2021	Cayuga Hgts	sludge	15.47		cement pad	19-Jun	St5
6/7/2021	Watkins Glen	sludge	17		cement pad	19-Jun	St6
6/11/2021	Whitney Point	sludge	17.97		cement pad	19-Jun	St6
6/15/2021	Waverly	sludge	17.95		cement pad	29-Jun	St7
6/15/2021	DFA	sludge	15.68		p2		
6/16/2021	DFA	wastewater		6,300.00	p2		
6/17/2021	DFA	wastewater		7,000.00	p2		
6/18/2021	Cayuga Hgts	sludge	16.08		cement pad	29-Jun	St7
6/21/2021	Watkins Glen	sludge	20.8		cement pad	29-Jun	St7
6/22/2021	DFA	sludge	16.83		p2		
6/23/2021	Watkins Glen	sludge	19.95		Cement Pad	29-Jun	St4
6/23/2021	Perry	sludge	20.97		cement pad	29-Jun	St5
6/24/2021	DFA	wastewater		7,000.00	p2		
6/24/2021	Knoxville	sludge	23.07		cement pad	29-Jun	St6
6/24/2021	DFA	sludge	16.08		p2		
6/25/2021	DFA	wastewater		7,000.00	p2		
6/25/2021	Perry	sludge	20.5		cement pad	8/5/2021	P1A
6/26/2021	DFA	wastewater		7,000.00	p2		
6/29/2021	DFA	wastewater		7000	P2		
7/7/2021	Quest	wastewater		7000	P2		
7/12/2021	Waverly	sludge	18.07		cement pad	8/6/2021	P1A
7/13/2021	DFA	wastewater		7,000.00	P2		
7/16/2021	Canisteo	sludge	12.2		cement pad	8/6/2021	P1A
7/22/2021	DFA	wastewater		6,250.00	P2		
7/26/2021	Knoxville	sludge	12.2		cement pad	8/7/2021	P1A
7/28/2021	Perry	sludge	13.8		cement pad	8/7/2021	P1A
8/8/2021	Quest	waste water		1,500.00	P2		
8/16/2021	DFA	waste water		7,000.00	P2		
8/19/2023	DFA	waste water		7,000.00	P2		
8/24/2021	DFA	waste water		7,000.00	P2		

8/31/2021	Cayuga Heights	sludge	15.17		cement pad	13-Oct	M5
9/1/2021	Waverly	sludge	18.97		cement pad	13-Oct	M5
9/2/2021	Whitney Point	sludge	18.87		cement pad	14-Oct	M5
9/3/2021	Perry	sludge	18.1		cement pad	14-Oct	M5
9/7/2021	Watkins	sludge	17.1		cement pad	15-Oct	M5
9/8/2021	Quest	waste water		5,500.00	p2		
9/14/2021	cayuga heights	sludge	14.58		cement pad	15-Oct	M5
9/15/2021	Upstate	waste water from Floc Tank		2,500.00	p2		
9/24/2021	Quest	waste water		5,500.00	p2		
9/27/2021	Watkins	sludge	14.28		cement pad	15-Oct	M5
10/4/2021	DFA	Waste Water		5,500.00	P2		
10/6/2021	Quest	Waste Water		5,000.00	P2		
10/7/2021	Waverly	Sludge	12.28		cement pad	11-Nov	M2
10/14/2021	Quest	waste water		5,000.00	P2		
10/18/2021	Quest	Waste Water		4825.00	P2		
10/20/2021	DFA	Waste Water		5,500.00	P2		
10/29/2021	Quest	Waste Water		2,500.00	P2		
11/3/2021	DFA	Waste Water		7500.00	P2		
11/1/2021	Kerry Bio Science	wastewater		5,500.00	p2		
11/2/2021	Watkins Glen	sludge	18.7		cement pad	11-Nov	M2
11/2/2021	Cayuga Hgts	sludge	16.76		cement pad	11-Nov	M3
11/2/2021	DFA	wastewater		5,500.00	p2		
11/4/2021	Waverly	sludge	18.39		cement pad	14-Nov	M3
11/8/2021	Cayuga Hgts	sludge	16.7		cement pad	14-Nov	H3
11/9/2021	Watkins Glen	sludge	17.58		cement pad	15-Nov	H3
11/10/2021	Cayuga Hgts	sludge	15.9		cement pad	15-Nov	P1A
11/17/2021	Cayuga Hgts	sludge	16.83		cement pad	17-Nov	P1A
11/17/2021	Watkins Glen	sludge	18.58		cement pad	17-Nov	H3
11/18/2021	Waverly	sludge	18.93		cement pad	18-Nov	H3
11/23/2021	DFA	wastewater		3,770.00	p2		
11/23/2021	DFA	wastewater		8,500.00	p2		
12/17/2021	DFA	wastewater		19,264.00	p2		
12/18/2021	DFA	wastewater		16,100.00	p2		
12/1/2021	Cayuga Hgts	sludge	18.6		cement pad	6-Dec	A12S
12/2/2021	Waverly	sludge	17.83		cement pad	6-Dec	A12S
12/2/2021	Perry	sludge	18.82		cement pad	6-Dec	A12S
12/6/2021	Cayuga Hgts	sludge	16		cement pad	6-Dec	A12S
12/15/2021	Waverly	sludge	17.1		cement pad	17-Dec	A12S
12/17/2021	Watkins Glen	sludge	16.82		cement pad	17-Dec	A12S
12/17/2021	DFA	Waste Water		6850.00	p2		
12/17/2021	DFA	Waste Water		5987.00	P2		
12/21/2021	Cayuga Hgts	sludge	17.5		cement pad	28-Dec	A12S
12/28/2021	Waverly	sludge	20.07		cement pad	28-Dec	A12S

Date	Source	Gallons	Tons	Field	Machine	Operator		
6/21/2021	Heifer barn	18000.00		C11	9105	KS	top spread	
7/2/2021	Heifer Barn	11000.00		c11	9105	KS	Top Spread	
		29000						

Date	Source	Gallons	Tons	Field	Machine	Operator		
1/21/2021	P1	51,000.00		E3	9105	KS		
1/22/2021	P1	25,500.00		E3	9105	KS		
1/25/2021	P1	76,500.00		E-3	9105	KS		
3/11/2021	Dairy Barn	72,000.00		E3	9105	KS		
11/22/2021	P1	86,800.00		E3	Quad	KS		
		311800						

Date	Source	Gallons	Tons	Field	Machine	Operator			
6/30/2021	P1	13,500.00		E4	9105	KS	top spread		
7/1/2021	P1	22,500.00		E4	9105	KS	top spread		
		36000							

Date	Source	Gallons	Tons	Field	Machine	Operator
11/24/2021	P1	111,600.00		F10 B	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
11/24/2021	P1	24,800.00		F11	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
6/28/2021	P1	25,500.00		F13	spread trlr	DB

Date	Source	Gallons	Tons	Field	Machine	Operator
11/23/2021	P1	93,000.00		F15	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
11/23/2021	P1	62,000.00		F19	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
11/21/2021	P1	99,200.00		F2	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
11/26/2021	P1	49,600.00		F4	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
3/22/2021	Dairy Barn	72,000.00		Glosik	9105	KS
8/9/2021	P1	15000		Glosick 11	9105	KS
8/10/2021	P1	15000		Glosick 10A	9105	Ks
8/11/2021	P1	15000		Gloick 10B	9105	KS
12/9/2021	Dairy	168,000.00		Glosick 11,12,13,	Quad	KS
12/10/2021	Dairy	48,000.00		Glossick	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
6/30/2021	P1	16,000.00		H 2A	spread trlr	DB

Date	Source	Gallons	Tons	Field	Machine	Operator
11/15/2021	P2	125000		H3	9105	KS
11/16/2021	P2	125000		H3	9105	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
6/30/2021	P1	32,000.00		I1	spread trlr	DB

Date	Source	Gallons	Tons	Field	Machine	Operator
12/1/2021	P1	83,200.00		J 2	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
12/1/2021	P1	83,200.00		J2	Quad	KS
12/13/2021	Dairy	104,000.00		J2	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
8/26/2021	P2	80000		J1	custom spread	
8/27/2021	P1	80000		J1	custom spread	

Date	Source	Gallons	Tons	Field	Machine	Operator
8/26/2021	P2	80000		J1	custom spread	
8/27/2021	P1	80000		J1	custom spread	

Date	Source	Gallons	Tons	Field	Machine	Operator
12/1/2021	P1	51,200.00		J4	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
1/26/2021	P1	31,500.00		K1	9105	KS
1/28/2021	P1	58,500.00		K1	9105	KS
3/10/2021	Dairy Barn	40,000.00		K1	KS	Ks
3/11/2021	Dairy Barn	16,000.00		K1	9105	KS
11/10/2021	p2	140000		k1	9105	KS
11/11/2021	P2	187000		k1	9105	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
12/10/2021	Dairy	88,000.00		L 2	Quad	KS
12/10/2021	Dairy	96,000.00		L 1	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
6/29/2021	P1	7,500.00		M3	9105	KS
6/30/2021	P1	7,500.00		M3	spread trlr	DB
6/30/2021	P1	21,000.00		M3	9105	KS
8/12/2021	P2	15000		M6	9105	KS
8/13/2021	P2	15000		M6	9105	KS
8/24/2021	P2	122000		m3	custom spread	
8/25/2021	P2	80000		m2	custom spread	
10/13/2021	P2	25000		M5	9105	KS
10/14/2021	P2	25000		M5	9105	Ks
10/15/2021	P2	25000		M5	9105	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
3/12/2021	Dairy Barn	32,000.00		N1	9105	KS
3/13/2021	Dairy Barn	40,000.00		N1	9105	KS
12/14/2021	P2	120,000.00		N 1	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
3/12/2021	Dairy Barn	32,000.00		O1	9105	KS
3/13/2021	Dairy Barn	24,000.00		O1	9105	KS
3/14/2021	Dairy Barn	40,000.00		O2	9105	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
8/3/2021	P1	25000		P1A	9105	ks
8/4/2021	p1	25000		P1A	9105	ks
8/6/2021	P1	25000		P1a	9105	Ks
8/16/2021	P2	50000		P1A	9105	KS
8/17/2021	Dairy Barn	20000		P1A	9105	KS
8/20/2021	Dairy Barn	20000		P1A	9105	Ks
8/23/2021	Dairy Barn	20000		P1A	9105	

Date	Source	Gallons	Tons	Field	Machine	Operator
2/4/2021	Heifer Barn	20000.00		Q11	9105	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
1/8/2021	Heifer Barn	15000		R11	9105	Ks
1/19/2021	Heifer Barn	4,500.00		R 11	9105	KS
1/19/2021	Heifer Barn	22,500.00		R 11	9105	KS
3/10/2021	Heifer Barn	25,000.00		R11	KS	Ks

Date	Source	Gallons	Tons	Field	Machine	Operator
3/29/2021	P2	48,000.00		ST 7	9105	KS
3/30/2021	P2	64,000.00		S6	9105	KS
3/31/2021	P2	64,000.00		S5	9105	KS
4/6/2021	P2	72,000.00		ST 5	9105	MV
4/7/2021	P2	40,000.00		ST 6	9105	MV
4/8/2021	P2	40,000.00		S15	9105	MV
4/9/2021	P2	40,000.00		ST 6	9105	MV
4/10/2021	P2	40,500.00		ST 6	9105	DB
4/26/2021	P2	25,000.00		ST 6	9105	MV
4/26/2021	P2	25,000.00		S5	9105	MV
4/27/2021	P2	25,000.00		S5	9105	MV
4/28/2021	P2	25,000.00		S6	9105	MV
5/26/2021	P2	31,500.00		ST 8	9105	KS
5/26/2021	P2	37,500.00		ST 5	9105	KS
6/1/2021	P2	52,000.00		ST 6	9105	KS
6/1/2021	P2	54,000.00		ST 8	9105	KS
6/2/2021	P2	4,000.00		ST 6	9105	KS
6/3/2021	P2	47,500.00		ST 4	9105	KS
6/4/2021	P2	44,000.00		ST 4	Quad	KS
6/7/2021	P2	24000.00		ST 4	Quad	KS
6/9/2021	P2	36000.00		S4	Quad	KS
6/11/2021	P2	16000.00		S4	Quad	KS
6/14/2021	P2	40,000.00		ST 4	Quad	KS
6/15/2021	P2	40,000.00		ST 4	Quad	KS
6/16/2021	P2	40,000.00		ST 4	Quad	KS
6/17/2021	P2	50,000.00		ST 4	Quad	KS
6/18/2021	P2	50,000.00		ST 4	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
3/16/2021	Dairy Barn	36,000.00		Sugar 2	9105	KS
3/17/2021	Dairy Barn	36,000.00		Sugar 3	9105	KS
12/10/2021	Dairy	8,000.00		Sugar	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
5/20/2021	Dairy	88,000.00		Tucker 5	Quad	KS
5/21/2021	Dairy	45,000.00		Tucker 1	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
12/13/2021	Dairy	8,000.00		W1	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
12/2/2021	Dairy	12,800.00		W9	Quad	KS
12/13/2021	Dairy	128,000.00		W9	Quad	KS

Date	Source	Gallons	Tons	Field	Machine	Operator
5/18/2021	Dairy	50,000.00		Z1a	Quad	KS
5/19/2021	Dairy	50,000.00		Z1a	Quad	KS
5/20/2021	Dairy	24,000.00		Z1a	Quad	KS

Date	Source	Type	Tons	Gallons	Detination	Date	Field
4/5/2021	Canisteo	sludge	17.79		cement pad	4/5/2021	St5
7/16/2021	Canisteo	sludge		12.2	cement pad	8/6/2021	P1A

Date	Source	Type	Tons	Gallons	Detination	Date	Field
4/5/2021	Cayuga Hgts	sludge	15.9		cement pad	3/10/2021	N1
4/9/2021	Cayuga Hgts	sludge	15.68		cement pad	4/9/2021	ST7
4/22/2021	Cayuga Hgts	sludge	14.53		cement pad	5/27/2021	St6
6/2/2021	Cayuga Hgts	sludge	15.16		cement pad	17-Jun	St4
6/4/2021	Cayuga Hgts	sludge	15.47		cement pad	17-Jun	St4
6/4/2021	Cayuga Hgts	sludge	15.47		cement pad	19-Jun	ST5
6/18/2021	Cayuga Hgts	sludge	16.08		cement pad	29-Jun	St7
8/31/2021	Cayuga Heights	sludge	15.17		cement pad	13-Oct	M5
9/14/2021	cayuga heights	sludge	14.58		cement pad	15-Oct	M5
11/2/2021	Cayuga Hgts	sludge	16.76		cement pad	11-Nov	M3
11/8/2021	Cayuga Hgts	sludge	16.7		cement pad	14-Nov	H3
11/10/2021	Cayuga Hgts	sludge	15.9		cement pad	15-Nov	P1A
11/17/2021	Cayuga Hgts	sludge	16.83		cement pad	17-Nov	P1A
12/1/2021	Cayuga Hgts	sludge	18.6		cement pad	6-Dec	A12S
12/6/2021	Cayuga Hgts	sludge	16		cement pad	6-Dec	A12S
12/21/2021	Cayuga Hgts	sludge	17.5		cement pad	28-Dec	A12S

Date	Source	Type	Tons	Gallons	Detination
1/2/2021	DFA	sludge	9		p2
1/4/2021	DFA	sludge	6.29		p2
1/8/2021	DFA	sludge	7.97		p2
1/11/2021	DFA	sludge	14.17		P2
1/14/2021	DFA	sludge	13.97		P2
1/15/2021	DFA	wastewater		8,000.00	P2
1/16/2021	DFA	wastewater		16,300.00	P2
1/18/2021	DFA	wastewater		24,300.00	P2
1/20/2021	DFA	sludge	14.23		P2
1/22/2021	DFA	sludge	12.87		P2
2/8/2021	DFA	sludge	11.11		P2
2/24/2021	DFA	Sludge	12.58		P2
3/3/2021	DFA		6.89		P2
3/9/2021	DFA	sludge	16.43		P2
3/24/2021	DFA	wastewater		5,500.00	P2
4/7/2021	DFA	sludge	15.54		p2
4/30/2021	DFA	wastewater		30,000.00	P2
5/17/2021	DFA	wastewater		30,000.00	P2
6/15/2021	DFA	sludge	15.68		p2
6/16/2021	DFA	wastewater		6,300.00	p2
6/17/2021	DFA	wastewater		7,000.00	p2
6/22/2021	DFA	sludge	16.83		p2
6/24/2021	DFA	wastewater		7,000.00	p2
6/24/2021	DFA	sludge	16.08		p2
6/25/2021	DFA	wastewater		7,000.00	p2
6/26/2021	DFA	wastewater		7,000.00	p2
6/29/2021	DFA	wastewater		7000	P2
7/13/2021	DFA	wastewater		7,000.00	P2
7/22/2021	DFA	wastewater		6,250.00	P2
8/16/2021	DFA	waste water		7,000.00	P2
8/19/2023	DFA	waste water		7,000.00	P2
8/24/2021	DFA	waste water		7,000.00	P2
10/4/2021	DFA	Waste Water		5,500.00	P2
10/20/2021	DFA	Waste Water		5,500.00	P2
11/3/2021	DFA	Waste Water		7500.00	P2
11/2/2021	DFA	wastewater		5,500.00	p2
11/23/2021	DFA	wastewater		3,770.00	p2
11/23/2021	DFA	wastewater		8,500.00	p2
12/17/2021	DFA	wastewater		19,264.00	p2
12/18/2021	DFA	wastewater		16,100.00	p2
12/17/2021	DFA	Waste Water		6850.00	p2
12/17/2021	DFA	Waste Water		5987.00	P2

Date

Field

Date	Source	Type	Tons	Gallons	Detination	Date	Field
1/13/2021	Dryden	sludge	21.12		cement pad	3/10/2021	N1
4/20/2021	Dryden	sludge	17.95		cement pad	5/26/2021	St5

Date	Source	Type	Tons	Gallons	Destination
11/1/2021	Kerry Bio Science	wastewater		5,500.00	p2

Date

Field

Date Field

Date	Source	Type	Tons	Gallons	Destination
2/12/2021	Quest	wastewater		7,000.00	P2
2/17/2021	Quest	wastewater		5,000.00	P2
3/18/2021	Quest	wastewater		5,500.00	P2
3/22/2021	Quest	wastewater		5,200.00	P2
5/21/2021	Quest	wastewater		5,000.00	P2
6/3/2021	Quest	wastewater		16,400.00	P2
6/4/2021	Quest	wastewater		4,200.00	P2
7/7/2021	Quest	wastewater		7000	P2
8/8/2021	Quest	waste water		1,500.00	P2
9/8/2021	Quest	waste water		5,500.00	P2
9/24/2021	Quest	waste water		5,500.00	P2
10/6/2021	Quest	Waste Water		5,000.00	P2
10/14/2021	Quest	waste water		5,000.00	P2
10/18/2021	Quest	Waste Water		4825.00	P2
10/29/2021	Quest	Waste Water		2,500.00	P2
11/1/2021	Kerry Bio Science	wastewater		5,500.00	P2

Date	Source	Type	Tons	Gallons	Destination	Date	Field
6/24/2021	Knoxville	sludge	23.07		cement pad	29-Jun	516
7/26/2021	Knoxville	sludge	12.2		cement pad	8/7/2021	PIA

Date	Source	Type	Tons	Gallons	Detination
2/10/2021	Leprino	wastewater		5,000.00	p2
2/19/2021	Leprino	wastewater		2,500.00	p2
3/11/2021	Leprino	wastewater		5,000.00	P2
3/16/2021	Leprino	wastewater		5,000.00	p2
5/19/2021	Leprino			1,500.00	P2

Date

Field

Date	Source	Type	Tons	Gallons	Detination	Date	Field
4/5/2021	Owego	sludge	20		cement pad	4/5/2021	St5
4/7/2021	Owego Town	sludge	40		cement pad	4/7/2021	St6
4/9/2021	Owego	sludge	40		cement pad	4/9/2021	St4
4/13/2021	Owego	sludge	20		cement pad	4/14/2022	St4
4/14/2021	Owego	sludge	20		cement pad	4/14/2022	St5
4/14/2021	Owego	sludge	20		cement pad	4/14/2022	St6

Date	Source	Type	Tons	Gallons	Detination	Date	Field
6/4/2021	Perry	sludge	36.47		cement pad	17-Jun	St4
6/4/2021	Perry	sludge	36.47		cement pad	19-Jun	St5
6/23/2021	Perry	sludge	20.97		cement pad	29-Jun	St5
6/25/2021	Perry	sludge	20.5		cement pad	8/5/2021	P1A
728/2021	Perry	sludge	13.8		cement pad	8/7/2021	P1A
9/3/2021	Perry	sludge	18.1		cement pad	14-Oct	M5
12/2/2021	Perry	sludge	18.82		cement pad	6-Dec	A125

Date	Source	Type	Tons	Gallons	Detination	Date	Field
6/4/2021	Perry	sludge	36.47		cement pad	17-Jun	St4
6/4/2021	Perry	sludge	36.47		cement pad	19-Jun	St5
6/23/2021	Perry	sludge	20.97		cement pad	29-Jun	St5
6/25/2021	Perry	sludge	20.5		cement pad	8/5/2021	P1A
7/28/2021	Perry	sludge	13.8		cement pad	8/7/2021	P1A
9/3/2021	Perry	sludge	18.1		cement pad	14-Oct	M5
12/2/2021	Perry	sludge	18.82		cement pad	6-Dec	A125

Date	Source	Type	Tons	Gallons	Destination
9/15/2021	Upstate	waste water from Floc Tank		2,500.00	p2

Date

Field

Date	Source	Type	Tons	Gallons	Detination	Date	Field
4/7/2021	Watkins	sludge	18.34		cement pad	4/7/2021	St6
4/9/2021	Watkins	sludge	19.56		cement pad	4/9/2021	St7
4/20/2021	Watkins	sludge	15.53		cement pad	5/26/2021	St5
4/22/2021	Watkins	sludge	17.11		cement pad	5/27/2021	St6
9/7/2021	Watkins	sludge	17.1		cement pad	15-Oct	M5
9/27/2021	Watkins	sludge	14.28		cement pad	15-Oct	M5

Date	Source	Type	Tons	Gallons	Detination	Date	Field
4/7/2021	Watkins	sludge	18.34		cement pad	4/7/2021	St6
4/9/2021	Watkins	sludge	19.56		cement pad	4/9/2021	St7
4/20/2021	Watkins	sludge	15.53		cement pad	5/26/2021	St5
4/22/2021	Watkins	sludge	17.11		cement pad	5/27/2021	St6
6/7/2021	Watkins Glen	sludge	17		cement pad	19-Jun	St6
6/21/2021	Watkins Glen	sludge	20.8		cement pad	29-Jun	St7
6/23/2021	Watkins Glen	sludge	19.95		Cement Pad	29-Jun	St4
9/7/2021	Watkins	sludge	17.1		cement pad	15-Oct	M5
9/27/2021	Watkins	sludge	14.28		cement pad	15-Oct	M5
11/2/2021	Watkins Glen	sludge	18.7		cement pad	11-Nov	M2
11/9/2021	Watkins Glen	sludge	17.58		cement pad	15-Nov	H3
11/17/2021	Watkins Glen	sludge	18.58		cement pad	17-Nov	H3
12/17/2021	Watkins Glen	sludge	16.82		cement pad	17-Dec	A125

Date	Source	Type	Tons	Gallons	Detination	Date	Field
6/1/2021	Waverly	sludge	16.6		cement pad	17-Jun	St4
6/15/2021	Waverly	sludge	17.95		cement pad	29-Jun	St7
7/12/2021	Waverly	sludge	18.07		cement pad	8/6/2021	P1A
9/1/2021	Waverly	sludge	18.97		cement pad	13-Oct	M5
10/7/2021	Waverly	Sludge	12.28		cement pad	11-Nov	M2
11/4/2021	Waverly	sludge	18.39		cement pad	14-Nov	M3
11/18/2021	Waverly	sludge	18.93		cement pad	18-Nov	H3
12/2/2021	Waverly	sludge	17.83		cement pad	6-Dec	A12S
12/15/2021	Waverly	sludge	17.1		cement pad	17-Dec	A12S
12/28/2021	Waverly	sludge	20.07		cement pad	28-Dec	A12S

Date	Source	Type	Tons	Gallons	Detination	Date	Field
6/13/2021	Whitney Point	sludge	17.97		cement pad	19-Jun	St6
9/2/2021	Whitney Point	sludge	18.87		cement pad	14-Oct	M5



MANURE ANALYSIS REPORT

Sample Number: 27776130
Date Sampled:
Date Received: 7/22/2021
Date Mailed: 7/27/2021
Statement ID: P1
Kind: Misc. - Liquid (076)
Description: P1

953 - Dickson

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.057 %	1.13	4.66
Ammonium Nitrogen	.024 %	.48	1.99
Organic Nitrogen	.032 %	.65	2.67
Phosphorus (P)	.004 %	.08	.34
Phosphate Equivalent (P205)	.009 %	.19	.78
Potassium (K)	.059 %	1.18	4.86
Potash Equivalent (K20)	.071 %	1.42	5.85
Total Solids	.37 %		
Density	.99 kg/l	61.69 Lbs/CuFt	8.25 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27776140
 Date Sampled:
 Date Received: 7/22/2021
 Date Mailed: 7/27/2021
 Statement ID: P2
 Kind: Misc. - Solid (077)
 Description: P2

953 - Dickson

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.374 %	7.48	30.83
Ammonium Nitrogen	.021 %	.42	1.72
Organic Nitrogen	.353 %	7.06	29.11
Phosphorus (P)	.057 %	1.14	4.69
Phosphate Equivalent (P205)	.130 %	2.60	10.74
Potassium (K)	.052 %	1.04	4.31
Potash Equivalent (K20)	.063 %	1.26	5.19
Total Solids	3.28 %		
Density	.99 kg/l	61.69 Lbs/CuFt	8.25 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27776150
 Date Sampled:
 Date Received: 7/22/2021
 Date Mailed: 7/27/2021
 Statement ID: P3
 Kind: Misc. - Liquid (076)
 Description: P3

953 - Dickson

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.032 %	.64	2.65
Ammonium Nitrogen	.009 %	.17	.70
Organic Nitrogen	.024 %	.47	1.95
Phosphorus (P)	.003 %	.07	.27
Phosphate Equivalent (P205)	.008 %	.15	.63
Potassium (K)	.057 %	1.13	4.66
Potash Equivalent (K20)	.068 %	1.36	5.62
Total Solids	.33 %		
Density	.99 kg/l	61.69 Lbs/CuFt	8.25 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27776160
 Date Sampled:
 Date Received: 7/22/2021
 Date Mailed: 7/27/2021
 Statement ID: P4
 Kind: Misc. - Liquid (076)
 Description: P4

953 - Dickson

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.045 %	.90	3.74
Ammonium Nitrogen	.013 %	.26	1.10
Organic Nitrogen	.032 %	.64	2.64
Phosphorus (P)	.000 %	.00	.01
Phosphate Equivalent (P205)	.000 %	.01	.02
Potassium (K)	.038 %	.77	3.18
Potash Equivalent (K20)	.046 %	.92	3.83
Total Solids	.33 %		
Density	1.00 kg/l	62.18 Lbs/CuFt	8.31 Lbs/Gal



MANURE ANALYSIS REPORT

Sample Number: 26942120
Date Sampled: 08/10/20
Date Received: 8/13/2020
Date Mailed: 8/18/2020
Statement ID: MAIN DAIRY LAGOON
Kind: Cattle-Liquid <3 Mo (080)
Description: MAIN DAIRY LAGOON

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.282 %	5.64	23.83
Ammonium Nitrogen	.122 %	2.44	10.30
Organic Nitrogen	.160 %	3.21	13.54
Phosphorus (P)	.056 %	1.12	4.75
Phosphate Equivalent (P205)	.129 %	2.58	10.88
Potassium (K)	.256 %	5.11	21.57
Potash Equivalent (K20)	.308 %	6.15	25.99
Total Solids	6.10 %		
Density	1.01 kg/l	63.17 Lbs/CuFt	8.44 Lbs/Gal
pH	7.7		



CUMBERLAND VALLEY ANALYTICAL SERVICES

" Laboratory services for agriculture ... from the field to the feed bunk "

Farm: DICKSON ENV.
 Desc: #953 SLUDE PILE BY LWR
 Submitter: WESTERN NY CROP MANAGEMENT, .
 Account: GDW-826

Copies to:

Lab ID: 29683 014
 Sampled: 12/11/2020
 Arrived: 12/16/2020
 Completed: 12/22/2020
 Reported: 12/22/2020

Analysis Report

Results Reported on "As Received/Wet" Sample

ANALYTE	%(Wet-Basis)	Lbs/1000 Gal	Lbs/Ton
Solids	19.2		
Moisture	80.8		
Total Nitrogen	1.08	89.9	21.6
Ammonium Nitrogen	0.059	4.92	1.18
Organic Nitrogen	1.02	85	20.4
P2O5	1.25	104	24.9
K2O	0.13	10.9	2.62
Ca	0.56	46.5	11.1
Mg	0.069	5.76	1.38
Na	0.03	2.5	0.6
P	0.54	45.3	10.8
K	0.11	9.1	2.18

ANALYTE	mg/kg	Lbs/1000 Gal	Lbs/Ton
Cu	74.8	0.63	0.15
Mn	37.6	0.31	0.075
Fe	2110	17.6	4.23
Zn	73.2	0.61	0.15

OPTIONAL TESTS	
Density (lbs / gallon)	8.89
Density (lb / cu ft)	66.5
Volatile Solids, % wet-basis	
Water Soluble P (g/kg dry matter)	
P Source Coefficient	
pH	7.37



Cumberland Valley Analytical Services, Inc.

4999 Zanc A. Miller Drive, Waynesboro, PA 17268
 www.foragelab.com | mail@foragelab.com | 301-790-1980 | 800-CVAS-LAB



MANURE ANALYSIS REPORT

 LEO DICKSON & SONS
 5226 BONNY MILL ROAD
 BATH, NY 14810

 Sample Number: 26505470
 Date Sampled: 02/07/20
 Date Received: 2/13/2020
 Date Mailed: 2/17/2020
 Statement ID: 953 LEO DICKSON & SONS
 Kind: Cattle-Solid < 6 Mo (084)
 Description: HEIFER PACK

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.647 %	12.9	49.8
Ammonium Nitrogen	.071 %	1.4	5.5
Organic Nitrogen	.576 %	11.5	44.4
Phosphorus (P)	.123 %	2.5	9.5
Phosphate Equivalent (P205)	.282 %	5.6	21.7
Potassium (K)	.607 %	12.1	46.8
Potash Equivalent (K20)	.731 %	14.6	56.3
Total Solids	22.53 %		
Density	.92 kg/l	57.62 Lbs/CuFt	7.70 Lbs/Gal



MANURE ANALYSIS REPORT

LEE DICKSON & SONS
5226 BENNY HILL RD
BATH, NY 14810

Sample Number: 26673140
Date Sampled: 05/13/20
Date Received: 5/18/2020
Date Mailed: 5/20/2020
Statement ID: 953 LEE DICKSON & SONS
Kind: Cattle-Solid Dally (083)
Description: COMPOSITE BIOSOLIDS

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.640 %	12.80	51.92
Ammonium Nitrogen	.030 %	.59	2.41
Organic Nitrogen	.610 %	12.20	49.50
Phosphorus (P)	.483 %	9.66	39.21
Phosphate Equivalent (P205)	1.107 %	22.15	89.84
Potassium (K)	.043 %	.85	3.46
Potash Equivalent (K20)	.051 %	1.03	4.17
Total Solids	16.53 %		
Density	.97 kg/l	60.70 Lbs/CuFt	8.11 Lbs/Gal

MANURE ANALYSIS REPORT

 DICKSON ENVIROMENTAL
 5226 BUNNY HILL ROAD
 BATH, NY 14810

 Sample Number: 24618490
 Date Sampled: 03/09/18
 Date Received: 3/8/2018
 Date Mailed: 3/9/2018
 Statement ID: 953 DICKSON ENVIROMENTAL
 Kind: Manure, Semi-Solid (091)
 Description: BATH WWTP SLUDGE

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.773 %	15.5	59.9
Ammonia Nitrogen	.000 %	.0	.0
Organic Nitrogen	.773 %	15.5	59.9
Phosphorus (P)	.283 %	5.7	21.9
Phosphate Equivalent (P205)	.649 %	13.0	50.3
Potassium (K)	.060 %	1.2	4.7
Potash Equivalent (K20)	.072 %	1.4	5.6
Total Solids	16.38 %		
Density	.93 kg/l	57.99 Lbs/CuFt	7.75 Lbs/Gal

MANURE ANALYSIS REPORT

Dicksons Environmental Serv Inc
 5226 Bonny Hill Road
 Bath, NY 14810

Sample Number: 25982530
 Date Sampled:
 Date Received: 8/8/2019
 Date Mailed: 8/12/2019
 Statement ID: LWR OUT FLOW 8/1/19
 Kind: Misc. - Liquid (076)
 Description: LWR OUT FLOW 8/1/19

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.024 %	.5	2.0
Ammonium Nitrogen	.021 %	.4	1.8
Organic Nitrogen	.003 %	.1	.2
Phosphorus (P)	.005 %	.1	.4
Phosphate Equivalent (P205)	.012 %	.2	1.0
Potassium (K)	.061 %	1.2	5.1
Potash Equivalent (K2O)	.074 %	1.5	6.1
Total Solids	.43 %		
Density	1.00 kg/l	62.18 Lbs/CuFt	8.31 Lbs/Gal
pH	7.3		

MANURE ANALYSIS REPORT

 Dicksons Environmental Serv Inc
 5226 Bonny Hill Road
 Bath, NY 14810

 Sample Number: 25889380
 Date Sampled: 06/19/19
 Date Received: 7/9/2019
 Date Mailed: 7/12/2019
 Statement ID: LWR
 Kind: Misc. - Solid (077)
 Description: LWR

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	1.062 %	21.2	88.1
Ammonium Nitrogen	.160 %	3.2	13.3
Organic Nitrogen	.902 %	18.0	74.8
Phosphorus (P)	.389 %	7.8	32.3
Phosphate Equivalent (P205)	.892 %	17.8	74.0
Potassium (K)	.125 %	2.5	10.4
Potash Equivalent (K20)	.151 %	3.0	12.5
Total Solids	22.63 %		
Density	.99 kg/l	62.06 Lbs/CuFt	8.30 Lbs/Gal
pH	8.4		

MANURE ANALYSIS REPORT

Dicksons Environmental Serv Inc
 5226 Bonny Hill Road
 Bath, NY 14810

Sample Number: 25889400
 Date Sampled: 06/19/19
 Date Received: 7/9/2019
 Date Mailed: 7/12/2019
 Statement ID: WHITE BAG
 Kind: Misc. - Solid (077)
 Description: WHITE BAG
Sludge Pile

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	1.098 %	22.0	72.8
Ammonium Nitrogen	.002 %	.0	.1
Organic Nitrogen	1.097 %	21.9	72.7
Phosphorus (P)	1.042 %	20.8	69.1
Phosphate Equivalent (P2O5)	2.389 %	47.8	158.4
Potassium (K)	.408 %	8.2	27.0
Potash Equivalent (K2O)	.491 %	9.8	32.6
Total Solids	57.67 %		
Density	.79 kg/l	49.60 Lbs/CuFt	6.63 Lbs/Gal
pH	6.4		

MANURE ANALYSIS REPORT

Dicksons Environmental Serv Inc
 5226 Bonny Hill Road
 Bath, NY 14810

Sample Number: 25889390
 Date Sampled: 06/19/19
 Date Received: 7/9/2019
 Date Mailed: 7/12/2019
 Statement ID: YELLOW BAG
 Kind: Misc. - Solid (077)
 Description: YELLOW BAG
Compost Pile

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.886 %	17.7	57.7
Ammonium Nitrogen	.003 %	.1	.2
Organic Nitrogen	.883 %	17.7	57.5
Phosphorus (P)	.762 %	15.2	49.6
Phosphate Equivalent (P205)	1.745 %	34.9	113.7
Potassium (K)	.380 %	7.6	24.8
Potash Equivalent (K2O)	.458 %	9.2	29.8
Total Solids	47.99 %		
Density	.78 kg/l	48.73 Lbs/CuFt	6.51 Lbs/Gal
pH	7.4		



730 Warren Rd. Ithaca, NY 14850
Telephone: 800.344.2697 Fax: 607.257.1350

MANURE ANALYSIS REPORT

DICKSON ENVIROMENTAL
5226 BUNNY HILL ROAD
BATH, NY 14810

Sample Number: 25721350
Date Sampled: 04/29/19
Date Received: 5/2/2019
Date Mailed: 5/13/2019
Statement ID: 953 DICKSON ENVIRONMENTAL
Kind: Cattle-Solid > 6 Mo (085)
Description: COMPOST

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.871 %	17.4	59.4
Ammonium Nitrogen	.000 %	.0	.0
Organic Nitrogen	.871 %	17.4	59.4
Phosphorus (P)	1.153 %	23.1	78.6
Phosphate Equivalent (P2O5)	2.643 %	52.9	180.0
Potassium (K)	.225 %	4.5	15.3
Potash Equivalent (K2O)	.271 %	5.4	18.5
Total Solids	41.97 %		
Density	.82 kg/l	50.95 Lbs/CuFt	6.81 Lbs/Gal

MANURE ANALYSIS REPORT

Dicksons Environmental Serv Inc
 5226 Bonny Hill Road
 Bath, NY 14810

Sample Number: 23703920
 Date Sampled: 05/05/17
 Date Received: 5/9/2017
 Date Mailed: 5/10/2017
 Statement ID: CH-4 PIT
 Kind: Misc. - Liquid (076)
 Description: CH-4 PIT

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.832 %	16.6	70.1
Ammonia Nitrogen	.247 %	4.9	20.8
Organic Nitrogen	.585 %	11.7	49.3
Phosphorus (P)	.393 %	7.9	33.1
Phosphate Equivalent (P205)	.901 %	18.0	75.9
Potassium (K)	.071 %	1.4	6.0
Potash Equivalent (K2O)	.085 %	1.7	7.2
Total Solids	12.09 %		
Density	1.01 kg/l	63.05 Lbs/CuFt	8.43 Lbs/Gal
pH	7.6		



Soil Test Report

Leo Dickson & Sons

Tuesday, April 12, 2022

FieldName	Split	Map	SampleDate	pH	BPH	OM	P	Plev	K	KLev	Ca	Mg	CEC	KSat	CaSat	MgSat	BCaMg	S	SLe	Zn	ZnLev	Cu
Conrad		2																				
F 1	160M	2	6/3/2020	5.9	6.8	2.6	27.4	H	94	LM	1295	157	6.7	2.1	52.1	10.1	5.2	10	M	1.4	L	2.2
G 1	160M	2	12/2/2020	7	0	2.5	97.1	VH	121.6	MH	2928	205	8.4	2.2	74.2	10.5	7.1	12	M	2	M	3.8
G 2	360	2	12/2/2020	6.8	7.1	2.5	86.2	VH	98.6	LM	4102	256	11.3	1.3	72.4	9.6	7.5	19	MH	5.5	MH	6.4
G 3	360	2	12/2/2020	6.6	7	2.8	61.2	VH	64.5	L	2063	171	7	1.5	68	10.5	6.5	9	M	1.9	M	4.8
H 1	160M	2	6/3/2020	6.4	6.9	2.8	72.1	VH	190.6	H	1784	210	6.7	4.2	64.4	13.5	4.8	17	MH	2.9	M	4.2
H 2A	360	2	12/22/2021	6.9	7.2	2.9	131.4	VH	197	H	7970	655	20.5	1.4	70.9	13.1	5.4	12	M	5.7	MH	3.7
H 2B	360	2	12/22/2021	6.8	7.1	3.3	220.5	VH	407.7	VH	7338	604	19.9	2.9	67.9	12.5	5.4	13	MH	3.3	M	5.5
H 2C	360	2	12/22/2021	6.8	6.9	2.2	225	VH	306.5	VH	7732	525	20.1	2.2	70.4	10.8	6.5	12	M	3	M	4.5
H 3	360	2	12/22/2021	5.8	6.9	3.2	96.8	VH	364.4	VH	4212	470	12	4.3	69.4	16.2	4.3	15	MH	3.4	M	3.9
H 3S	360	2	12/22/2021	6	6.7	2.5	60.7	VH	122.5	MH	3763	322	12.7	1.5	59.6	10.6	5.6	18	MH	2.8	M	4.4
H 4	160M	2	12/22/2021	6.4	6.9	3	93	VH	108.7	M	7288	536	17	1	78.9	13	6.1	13	MH	2.4	M	3.4
E 1	160M	3	2/4/2020	6.1	6.7	2.9	4.3	L	199.8	H	1307	241	8.4	3.5	41.7	12.2	3.4	16	MH	1.6	L	5.5
E 3	360	3	4/17/2019	6.4	6.7	3.6	72.5	VH	324	VH	2450	220	10.4	4.5	52	9	5.8	18	MH	3.9	M	7.2
E 4	360	3	2/4/2020	6	6.8	3.6	2.8	L	194.2	H	1112	215	6.8	4.2	47	13.5	3.5	13	MH	2.4	M	5.5
E 5	360	3	4/17/2019	6.4	6.7	2.8	29.8	H	130.8	MH	1606	198	8.7	2.3	46.4	9.8	4.7	14	MH	1.5	L	2
E 6	160M	3	6/3/2020	6.3	7	2.8	13.1	MH	76.5	L	1439	231	4.8	2.5	77.2	20.3	3.8	11	M	1.5	L	4.4
F 2	360	3	4/17/2019	6.5	7	2.3	68.8	VH	132.6	MH	2394	189	8.1	2.4	65.6	10	6.6	13	MH	1.6	L	5.1
F 3	160M	3	12/17/2020	7.1	0	2.6	130.5	VH	85.7	LM	3614	278	9.5	1.4	77.2	12.3	6.3	9	M	2.3	M	3.6
Glosick 10A		3	12/22/2021	5.6	6.7	2.8	2	L	171.2	H	3096	363	11.9	2.1	54.7	12.8	4.3	21	MH	2.7	M	3.9
Glosick 10B		3	12/22/2021	5.4	6.4	2.8	2	L	172.2	H	2616	363	14.7	1.7	38.8	10.4	3.7	18	MH	2.1	M	4.7

Soil tests are performed by Spectrum Analytic using Mehlich III chemistry and converted to Morgan equivalent. All relevant tests are reported in lbs/acre.

Key: OM = Organic Matter CEC = Cation Exchange Capacity P = Phosphorus K = Potassium MG = Magnesium Ca = Calcium S = Sulphur B = Boron Zn = Zinc Cu = Copper Ca_MG = Calcium_Magnesium Ratio

FieldName	Split	Map	SampleDate	pH	BPH	OM	P	Plev	K	KLev	Ca	Mg	CEC	KSat	CaSat	MgSat	BCaMg	S	SLe	Zn	ZnLev	Cu
Glosick 11		3	12/22/2021	5.7	6.5	4	2	L	385.6	VH	3637	443	15.8	3.5	46.8	11.7	4.0	21	MH	3.9	M	6.5
Glosick 12		3	12/22/2021	5.2	6.7	3.8	2	L	280.7	VH	2780	381	11.6	3.5	51.6	13.8	3.7	25	MH	2.4	M	4.2
Glosick 13		3	12/22/2021	5.3	6.5	4.1	2	L	262.3	VH	2389	356	13.2	2.9	40.3	11.3	3.6	29	MH	2.5	M	2
I 1	160M	3	6/3/2020	6.2	7	2.2	23.1	H	71.9	LM	1263	189	4.4	2.6	78.8	18.6	4.2	8	M	1.4	L	5.1
K 1	360	3	4/17/2019	5.2	5.9	3	2	L	151	H	61	97	15.3	1.5	9.5	2.9	3.3	17	MH	1	L	0.9
K 2		3	4/17/2019	5.2	6.3	2.4	2	L	137.2	MH	151	102	10.7	1.9	15.1	4.3	3.5	20	MH	1.1	L	0.9
K 3		3	2/4/2020	6.6	7	2.4	82.5	VH	103.2	M	3073	179	9.2	1.7	69.9	8.4	8.3	10	M	2	M	6
L 1	360	3	4/17/2019	6.4	6.5	3.4	13.6	MH	87.5	LM	1664	276	11.4	1.2	36	10.2	3.5	14	MH	1.6	L	5.9
L 2	360	3	4/17/2019	6.3	6.4	3.6	6.6	M	47	L	2042	384	13.6	0.6	34.8	11.7	3.0	16	MH	1.3	L	5.8
Sugar 1		3	12/7/2020	5.8	6.5	4.1	11.3	M	117	MH	2577	272	13	1.4	43.4	8.9	4.9	18	MH	5.5	MH	2.1
Sugar 2		3	12/7/2020	5.3	6.4	2.9	2	L	67.3	L	1171	191	11.4	0.9	28.9	7.2	4.0	19	MH	1.2	L	1.4
Sugar 3		3	12/7/2020	5	6	2.7	2	L	58.1	L	266	140	14.5	0.7	12.4	4.2	3.0	19	MH	1.1	L	0.7
VA 1		4	12/2/2020	5.3	6.7	2.9	9.2	M	128.9	MH	876	143	7.2	2.7	38.9	8.6	4.5	17	MH	2.9	M	3.7
Y 1		4	12/2/2020	4.9	6.6	2.2	2	L	56.2	L	375	79	7.2	1.3	27.4	5.1	5.4	20	MH	1.4	L	1.9
Y 2		4	12/2/2020	4.9	6.3	2.8	2	L	37.8	VL	244	83	10.6	0.6	16.6	3.6	4.6	21	MH	1.4	L	0.6
Y 3		4	12/2/2020	5.1	6.3	2.1	2	L	48.9	VL	577	91	11.2	0.7	20.6	3.7	5.6	20	MH	1.4	L	0.5
F 4	360	5	4/17/2019	7.1	0	3.1	171.8	VH	137.2	H	4491	136	10.6	1.9	83.3	5.7	14.6	13	MH	2.7	M	3
F 5	360	5	12/2/2020	6.5	6.8	2	34.3	H	126.2	H	1965	195	7.2	2.6	63.9	11.6	5.5	13	MH	2	M	3.2
F 6	360	5	12/2/2020	7	0	8.3	129.9	VH	117	MH	4022	260	10.7	1.7	75	10.3	7.3	11	M	3.9	M	5
F 7	360	5	12/2/2020	7.2	0	3	216.8	VH	107.8	MH	4452	196	10.2	1.6	85.4	8.2	10.4	11	M	3.8	M	5.5
F 8	360	5	12/2/2020	7.1	0	2.8	105.1	VH	128	MH	3141	165	8.2	2.3	79.8	8.7	9.2	13	MH	3.8	M	3.3
F 9	360	5	12/2/2020	6.8	7.1	2.5	106.5	VH	107.8	M	3794	189	10.3	1.6	73.9	7.9	9.4	13	MH	3	M	3.6

Soil tests are performed by Spectrum Analytic using Mehlich III chemistry and converted to Morgan equivalent. All relevant tests are reported in lbs/acre.

Key: OM = Organic Matter CEC = Cation Exchange Capacity P = Phosphorus K = Potassium MG = Magnesium Ca = Calcium S = Sulphur B = Boron Zn = Zinc Cu = Copper Ca_MG = Calcium_Magnesium Ratio

FieldName	Split	Map	SampleDate	pH	BPH	OM	P	Plev	K	KLev	Ca	Mg	CEC	KSat	CaSat	MgSat	BCaMg	S	SLe	Zn	ZnLev	Cu
F 10A	360	5	12/2/2020	7.3	0	3.8	312.4	VH	69.1	L	7033	229	14.1	0.8	92.3	6.9	13.4	23	MH	6.7	MH	6.2
F 10B	360	5	2/18/2020	7.2	0	3.8	477.1	VH	92.1	M	9447	213	16.9	0.8	89	5.4	16.5	20	MH	8	MH	7.5
F 11	160M	5	6/3/2020	6.3	6.8	3.4	177.3	VH	31.4	VL	4130	195	11.5	0.5	71.3	7.3	9.8	12	M	5.4	MH	5.6
F 12	160M	5	6/3/2020	6.6	6.9	3	135.9	VH	30.5	VL	3418	164	9.7	0.6	72.1	7.3	9.9	10	M	2.7	M	4.1
F 13	360	5	12/22/2021	6.6	6.9	3.2	445.7	VH	140	MH	8434	499	21.6	1	69.5	9.6	7.2	13	MH	5.5	MH	5.7
F 14		5	2/18/2020	6.2	6.9	2.9	59.6	VH	40.6	VL	2862	100	7.8	0.9	77.9	5.8	13.4	13	MH	1.8	M	2.3
F 15	160M	5	2/4/2020	6.5	7	3.2	152.5	VH	132.6	MH	3360	310	10.8	1.8	64.2	12.1	5.3	9	M	4.3	MH	8.9
F 16	160M	5	6/3/2020	6.4	6.8	3.1	81.6	VH	42.4	VL	3300	165	10	0.7	68.1	7.2	9.5	11	M	3	M	3.1
F 17	360	5	4/17/2019	6.1	6.7	3.1	61.9	VH	82.9	LM	2448	282	10.3	1.3	52.4	11.5	4.6	10	M	2.7	M	3.3
F 19	360	5	2/4/2020	6.9	7.1	2.8	136.7	VH	37.8	VL	4392	182	11.1	0.6	77.8	7.1	11.0	12	M	3.2	M	5.3
F 20	360	5	2/4/2020	7	0	3.4	162.9	VH	40.6	VL	4867	198	11.9	0.6	79.2	7.2	11.0	11	M	3.5	M	4.7
F 21	360	5	4/17/2019	6.9	7.2	2.7	153.1	VH	121.6	MH	3410	179	9.3	2	75.2	8.3	9.1	13	MH	3.3	M	5.6
F 23	160M	5	6/3/2020	6	6.7	3	45.7	VH	94	M	1769	220	9	1.6	47.8	10.5	4.6	10	M	2.3	M	7.1
J 1	360	6	12/22/2021	6.7	7	2.8	219.3	VH	385.6	VH	7010	617	19.6	2.8	66.2	13	5.1	23	MH	7.6	MH	7.3
J 2	360	6	12/22/2021	6.7	7	3.5	276.3	VH	373.6	VH	7324	620	20.2	2.6	66.7	12.7	5.3	21	MH	10.8	MH	9.7
J 3	160M	6	12/22/2021	6.6	7.3	2.6	194.7	VH	282.6	VH	6901	622	19.7	2.1	64.9	13	5.0	12	M	4.7	MH	4
J 4	360	6	12/22/2021	6	6.9	3.8	204.6	VH	360.8	VH	3803	425	11.1	4.6	68.7	15.9	4.3	26	MH	6.9	MH	4.2
M 1	360	6	12/22/2021	6.8	7.2	2.8	208.8	VH	510.7	VH	7931	536	20.9	3.5	69.3	10.6	6.5	12	M	5.5	MH	4.2
M 2	360	6	12/22/2021	6.8	7	3.5	546	VH	237.5	VH	8375	546	21.1	1.6	71	10.7	6.6	21	MH	12.9	H	6.4
M 3	360	6	12/22/2021	6.5	6.7	3	715.1	VH	356.2	VH	8855	506	22.5	2.3	66.6	9.3	7.2	17	MH	15.5	H	9.2
M 4	160M	6	12/22/2021	6.6	7	3.2	187.9	VH	370	VH	5902	474	17	3.1	65.3	11.5	5.7	11	M	5.6	MH	4
M 5	360	6	12/22/2021	6.6	6.7	2.3	304.7	VH	249.4	VH	7270	613	20.4	1.8	65.8	12.4	5.3	16	MH	6.3	MH	5.5

Soil tests are performed by Spectrum Analytic using Mehlich III chemistry and converted to Morgan equivalent. All relevant tests are reported in lbs/acre.

Key: OM = Organic Matter CEC = Cation Exchange Capacity P = Phosphorus K = Potassium MG = Magnesium Ca = Calcium S = Sulphur B = Boron Zn = Zinc Cu = Copper Ca_MG = Calcium_Magnesium Ratio

FieldName	Split	Map	SampleDate	pH	BPH	OM	P	Plev	K	KLev	Ca	Mg	CEC	KSat	CaSat	MgSat	BCaMg	S	SLe	Zn	ZnLev	Cu
M 6	160M	6	12/22/2021	6.1	6.6	3	430.3	VH	433.4	VH	4863	461	16.7	3.7	56.2	11.4	4.9	14	MH	6.8	MH	6.8
N 1	360	6	12/22/2021	5.5	6.3	3.3	671.9	VH	531	VH	3283	276	17.1	4.4	39.7	6.8	5.8	23	MH	7.2	MH	5.7
O 1	360	6	12/22/2021	5.5	6.4	3.8	546	VH	469.3	VH	3954	334	17.2	3.9	46	8.2	5.6	21	MH	7.3	MH	8
O 2	360	6	12/22/2021	6.2	6.7	3.7	616.8	VH	878.7	VH	6552	530	19.2	6.4	63.5	11.4	5.6	19	MH	10.8	MH	8.3
P 1A	160M	6	2/4/2020	6	6.7	3.9	62.9	VH	297.3	VH	2398	243	10.4	4.1	51.3	10	5.1	10	M	5.8	MH	14.6
P 1B	360	6	2/4/2020	7.1	0	2.1	50.2	VH	260.5	VH	3395	563	10.6	3.5	65.5	21.8	3.0	11	M	4.6	MH	5
S 1		6	12/22/2021	6.2	7.1	2.5	3.7	L	155.6	H	3975	546	10.4	2.2	76.1	21.7	3.5	8	M	2	M	3.6
S 2		6	12/22/2021	6.1	7.1	2.4	2	L	269.7	VH	2744	389	7.9	4.9	74.6	20.5	3.6	15	MH	2.1	M	4
S 5		6	12/22/2021	5.6	6.6	3.6	2	L	305.6	VH	2077	345	11.5	3.8	41.8	12.6	3.3	19	MH	2.1	M	4.7
S 7		6	12/22/2021	6	6.5	3.3	115	VH	135.4	MH	5217	246	17.2	1.2	58	6	9.7	13	MH	2	M	1.2
V 1		6	12/22/2021	5.8	6.4	3.7	2	L	246.7	VH	2314	291	14	2.6	37.1	8.8	4.2	27	MH	1.8	M	3.4
V 2	360	6	12/22/2021	6	6.4	3.3	303.3	VH	610.1	VH	4860	453	19.3	4.5	48.6	9.7	5.0	19	MH	3.1	M	7
V 3	360	6	12/22/2021	6.4	6.8	2.8	138.3	VH	442.6	VH	4142	374	12.8	4.9	64.1	12.2	5.3	13	MH	2.3	M	5.5
A 1	160M	7	2/4/2020	6.3	7.1	3.3	71.3	VH	215.4	VH	2589	262	7.1	4.5	79.9	15.7	5.1	15	MH	4.7	MH	10.2
A 2	160M	7	6/3/2020	6.5	6.9	3.8	137	VH	232.9	VH	3265	236	10.4	3.3	65.2	9.7	6.7	10	M	6.3	MH	9
A 3	360	7	2/4/2020	6.5	7.1	2.6	77.3	VH	237.5	VH	2738	279	9.5	3.6	62.1	12.4	5.0	11	M	4.1	MH	10.1
A 4	360	7	2/4/2020	6.2	6.8	2.9	78.5	VH	344.2	VH	2391	231	9.2	5.4	57.8	10.7	5.4	12	M	5.2	MH	11.2
A 5N	360	7	2/4/2020	6.4	7	2.9	73	VH	260.5	VH	2426	251	6.8	5.5	78.9	15.6	5.1	11	M	3.9	M	9
A 5S	360	7	2/4/2020	6.4	7	2.3	71.7	VH	277	VH	2629	246	7.2	5.6	79.8	14.6	5.5	10	M	4	MH	9.6
A 7	160M	7	2/4/2020	6.2	6.7	3.1	72.3	VH	337.8	VH	2548	226	10.6	4.6	52.5	9	5.8	13	MH	5.4	MH	11.8
A 8	360	7	4/17/2019	5.3	6.2	3.5	30.9	H	187.8	H	1954	171	15.2	1.8	30.2	4.9	6.2	26	MH	4.7	MH	2.3
A 9	360	7	4/17/2019	5.7	6.4	2.9	26.4	H	353.4	VH	1347	174	12.1	4.2	29.8	6.3	4.7	14	MH	2.5	M	4.2

Soil tests are performed by Spectrum Analytic using Mehlich III chemistry and converted to Morgan equivalent. All relevant tests are reported in lbs/acre.

Key: OM = Organic Matter CEC = Cation Exchange Capacity P = Phosphorus K = Potassium MG = Magnesium Ca = Calcium S = Sulphur B = Boron Zn = Zinc Cu = Copper Ca_MG = Calcium_Magnesium Ratio

FieldName	Split	Map	SampleDate	pH	BPH	OM	P	Plev	K	KLev	Ca	Mg	CEC	KSat	CaSat	MgSat	BCaMg	S	SLe	Zn	ZnLev	Cu
A 10		7	4/17/2019	5.7	6.3	2.8	26.7	H	305.6	VH	1646	191	13.7	3.2	29.7	6	5.0	15	MH	2.4	M	4.4
A 11	360	7	2/4/2020	6.3	6.6	2.7	75.6	VH	324	VH	2403	234	11.6	4	46	8.6	5.3	12	M	5.4	MH	11.6
A 12N	360	7	2/4/2020	6	6.7	3.6	64.5	VH	331.3	VH	2577	264	10.8	4.4	52	10.3	5.0	11	M	6.2	MH	15.1
A 12S	160M	7	2/4/2020	6.1	6.7	2.8	59.7	VH	167.6	H	2554	238	10.4	2.4	53.5	9.7	5.5	10	M	4.9	MH	10.6
D 1	360	7	12/2/2020	6.4	6.7	6.2	79.6	VH	407.7	VH	3415	287	12.4	4.7	56.5	9.8	5.8	20	MH	7.8	MH	8.9
D 2	160M	7	6/3/2020	6.5	7	3.1	92.1	VH	208	VH	2774	258	9.4	3.2	63.3	11.6	5.5	11	M	5.9	MH	9.9
Glosick 1		7	12/22/2021	6.2	6.8	3.8	269.3	VH	214.5	VH	5782	506	15.7	2	69.4	13.3	5.2	23	MH	12.7	H	10.3
Glosick 2		7	12/22/2021	5.8	6.6	3.3	366.5	VH	358	VH	4944	422	16.6	3.1	57.5	10.6	5.4	25	MH	18.7	VH	13.8
W 1	160M	7	6/3/2020	6.1	6.7	4	158.2	VH	351.6	VH	3433	195	12	4.2	58.8	7	8.4	11	M	11.6	H	11.3
W 4A	360	7	12/2/2020	6.8	7	3.3	146.7	VH	519	VH	3125	253	10	7.4	65.3	10.7	6.1	13	MH	5.5	MH	9.1
W 4B	360	7	12/2/2020	7.2	0	3.4	282.3	VH	600.9	VH	4805	346	12.2	7	76.4	11.9	6.4	16	MH	10.1	MH	13.9
W 6	360	7	4/17/2019	6.2	6.7	3.3	72.4	VH	328.6	VH	2430	236	10.5	4.5	51.5	9.6	5.4	16	MH	4.8	MH	6.8
W 8	360	7	4/17/2019	6.1	6.8	2.3	2	L	51.6	L	1408	226	7.1	1.2	51.7	13.5	3.8	11	M	0.6	L	0.6
W 9	160M	7	6/3/2020	6.5	6.8	2.7	84.3	VH	149.2	H	2421	236	8.4	2.6	63.6	11.9	5.3	13	MH	3.8	M	7.6
B 1	360	8	4/17/2019	5.9	6.7	1.7	12.1	M	55.3	L	1719	153	8.6	1.1	49.1	7.8	6.3	13	MH	1.6	L	1.6
B 2	360	8	12/8/2020	6.9	7.1	3.1	91.1	VH	249.4	VH	3794	213	10.4	3.5	73.3	8.7	8.4	10	M	3.2	M	2.6
B 3	360	8	4/17/2019	5.5	6.4	2.8	2	L	36	VL	765	100	10.3	0.6	25.4	4.4	5.8	18	MH	1.5	L	1.2
B 4	160M	8	6/3/2020	6.2	7	3.1	67.9	VH	122.5	MH	1956	155	5.5	3.4	84.2	12.4	6.8	12	M	3.8	M	4.1
B 5	360	8	2/4/2020	6	6.7	2.1	16.6	MH	117.9	M	1850	158	8.9	2	49.7	7.8	6.4	10	M	1.3	L	3.2
B 9	160M	8	6/3/2020	6.9	7.1	2.1	264.5	VH	344.2	VH	4355	165	11.4	4.3	74.9	6.3	11.9	14	MH	8.8	MH	6.2
B 10	160M	8	2/4/2020	5.8	6.6	3.1	45.3	VH	151.9	H	2027	146	10.4	2.2	45.4	6.1	7.4	11	M	2	M	0.6
B 11	360	8	2/4/2020	5.8	6.6	2.8	42	VH	158.4	H	2059	157	10.5	2.2	45.5	6.5	7.0	12	M	2	M	1.8

Soil tests are performed by Spectrum Analytic using Mehlich III chemistry and converted to Morgan equivalent. All relevant tests are reported in lbs/acre.

Key: OM = Organic Matter CEC = Cation Exchange Capacity P = Phosphorus K = Potassium MG = Magnesium Ca = Calcium S = Sulphur B = Boron Zn = Zinc Cu = Copper Ca_MG = Calcium_Magnesium Ratio

FieldName	Split	Map	SampleDate	pH	BPH	OM	P	Plev	K	KLev	Ca	Mg	CEC	KSat	CaSat	MgSat	BCaMg	S	SLe	Zn	ZnLev	Cu
Buckley		8	2/4/2020	5.7	6.6	2.9	8.9	M	246.7	VH	1420	269	10	3.6	37.1	11.4	3.3	12	M	2.5	M	2
C 1	360M	8	6/3/2020	7	0	2.8	141.9	VH	71.9	L	3798	255	10.2	1.1	75.2	10.6	7.1	12	M	3.8	M	3.3
C 2	360	8	2/4/2020	7	0	3.3	192.7	VH	128.9	MH	4529	301	11.9	1.6	74.6	10.7	7.0	12	M	3.5	M	3.4
C 3	360M	8	2/18/2020	6.6	7.1	2.4	121	VH	163	H	3404	249	10.4	2.3	67.5	10.2	6.6	9	M	4.9	MH	4.2
C 4	360	8	2/18/2020	6.6	7.2	2.5	96	VH	163	H	4008	249	11.6	2.1	68.8	9.1	7.6	13	MH	3	M	3.6
C 6	360	8	2/4/2020	6.4	7	2.8	62.6	VH	117	M	3723	195	8.5	2.1	88.1	9.8	9.0	18	MH	2.9	M	4.1
C 7	360	8	2/4/2020	6.2	6.8	2.6	51.7	VH	197	H	2104	181	8.3	3.5	58.3	9.4	6.2	11	M	2.9	M	4
C 8	360	8	4/17/2019	6.6	6.8	2.5	44.6	VH	272.4	VH	2412	269	8.6	4.6	62.2	13.2	4.7	14	MH	3.6	M	14.6
C 9	360M	8	2/4/2020	6.2	6.9	2.3	54	VH	190.6	H	2059	196	7.1	3.9	67.2	11.9	5.6	12	M	2.8	M	4
C 10A	360	8	2/4/2020	6.6	7.1	3.1	29.2	H	110.5	M	3001	243	9.4	1.8	67.2	11	6.1	14	MH	2	M	3.7
C 11	360	8	2/4/2020	6.2	6.8	2.3	16.8	MH	96.7	LM	2226	249	8.6	1.7	58.3	12.2	4.8	11	M	1.5	L	2.8
C 12	360	8	2/4/2020	6.2	6.8	3.6	7	M	78.3	L	2530	414	9.8	1.3	56.6	17.6	3.2	12	M	1.4	L	2.4
C 13	360	8	2/4/2020	6.2	6.9	2.4	23.1	H	147.3	H	2426	258	7.9	2.8	68.1	13.9	4.9	10	M	1.5	L	2.2
C 14		8	2/4/2020	6.2	6.9	2.8	21.8	H	137.2	MH	2427	249	7.8	2.6	68.6	13.5	5.1	12	M	1.6	L	2.3
Q 1	360	8	12/7/2020	6.7	7	3.4	63.8	VH	130.8	MH	3641	325	10.9	1.8	67.7	12.5	5.4	11	M	3	M	4.1
Q 2	360	8	2/4/2020	6.6	6.9	2.5	95.8	VH	78.3	LM	3061	188	9.2	1.3	69.9	8.8	7.9	10	M	3.4	M	5.4
Q 3	360	8	2/4/2020	6.5	7	2.1	72.3	VH	59.9	L	3229	140	9.5	1	70.6	6.5	10.9	9	M	3	M	4.6
Q 4	360M	8	2/18/2020	6.4	7	2.5	87.7	VH	67.3	L	3560	174	8.1	1.3	89.4	9.3	9.6	11	M	2.3	M	2.8
Q 5	360	8	2/4/2020	7.1	0	2.3	282.3	VH	166.6	H	5625	267	13.3	1.9	80.5	8.5	9.5	15	MH	8.7	MH	8
Q 6	360M	8	2/4/2020	6.7	7.2	2.5	130.1	VH	175.8	H	3501	171	9.9	2.6	71.9	7.4	9.7	9	M	3.5	M	3.6
Q 7	360	8	4/17/2019	6.4	7.2	2.9	34.3	H	99.5	LM	2847	205	7.1	2.2	85.5	12.4	6.9	10	M	5.2	MH	3.8
Q 8	360	8	2/4/2020	6.4	6.9	3.3	49.4	VH	85.7	LM	2629	213	8	1.7	71.8	11.4	6.3	11	M	2	M	3.5

Soil tests are performed by Spectrum Analytic using Mehlich III chemistry and converted to Morgan equivalent. All relevant tests are reported in lbs/acre.

Key: OM = Organic Matter CEC = Cation Exchange Capacity P = Phosphorus K = Potassium MG = Magnesium Ca = Calcium S = Sulphur B = Boron Zn = Zinc Cu = Copper Ca_MG = Calcium_Magnesium Ratio

FieldName	Split	Map	SampleDate	pH	BPH	OM	P	Plev	K	KLev	Ca	Mg	CEC	KSat	CaSat	MgSat	BCaMg	S	SLe	Zn	ZnLev	Cu
Q 9	360	8	4/17/2019	6	6.8	2.3	54.8	VH	117.9	M	2090	151	8.1	2.2	59.8	8.2	7.3	11	M	3.1	M	1.7
Q 11	360M	8	6/3/2020	6.3	6.8	2.8	62.5	VH	217.2	VH	2472	164	8.9	3.6	61.4	8	7.7	13	MH	2.2	M	2.3
Q 14	360	8	2/4/2020	6.4	6.8	2.5	23.7	H	101.3	M	3419	286	10.8	1.4	65.1	11.2	5.8	11	M	3.2	M	4.1
R 1	360	8	4/17/2019	7.1	0	2.9	435.2	VH	44.3	VL	6214	164	13.7	0.6	85.2	5.2	16.4	14	MH	4.9	MH	3.4
Spears 1		8	1/16/2019	6.4	6.8	3.1	22.7	H	117	M	2631	381	9.9	1.8	57.8	16.1	3.6	18	MH	2.6	M	3.5
Spears 2		8	1/16/2019	6.3	6.8	2.6	3.6	L	87.5	LM	2027	332	8.6	1.6	54.5	16.1	3.4	17	MH	1.4	L	1.1
Spears 3		8	1/16/2019	5.9	6.6	3.3	11.3	M	121.6	MH	1506	279	10	1.8	38.5	11.8	3.3	23	MH	15.8	H	3.4
Spears 5		8	1/16/2019	5.5	6.6	3.3	3.4	L	117.9	M	994	188	8.8	2	34.2	9.2	3.7	21	MH	2.2	M	2
Spears 6		8	1/16/2019	5.3	6.4	2.5	2	L	140	MH	401	182	10.2	2	19.8	7.7	2.6	20	MH	1.7	L	0.8
Spears 7		8	4/17/2019	6.2	6.9	3.2	20.4	H	331.3	VH	1852	301	7.4	6.5	60	17.2	3.5	32	H	3.5	M	6.4
U 1	360	8	1/28/2019	6.5	7.2	2.3	53.6	VH	105.9	M	3069	274	9.9	1.6	64.8	11.7	5.5	17	MH	2.8	M	2.2
U 2	360	8	1/28/2019	6	6.7	2.5	2.3	L	94	LM	2031	267	9.6	1.5	49.2	11.8	4.2	20	MH	1.2	L	1
U 3		8	1/28/2019	6	6.8	2.5	36.4	H	137.2	MH	2273	289	8.9	2.3	57.3	13.6	4.2	19	MH	2.2	M	1.6
U 4		8	2/4/2020	6.3	6.9	2	55.2	VH	197	H	2131	229	7.4	3.9	66.5	13.3	5.0	10	M	3	M	3.9
Q 10	360	9	4/17/2019	6.2	6.9	2.2	64.4	VH	183.2	H	2133	186	7.2	3.8	68.3	11.2	6.1	9	M	2.1	M	1.2
Q 12	360	9	12/7/2020	6.3	6.9	2.8	33.2	H	47	L	2779	251	8.3	1	71.8	12.8	5.6	12	M	1.9	M	1.6
Q 13	360	9	1/16/2019	6.8	7	3.1	136.8	VH	74.6	L	4011	188	10.7	1.1	74.7	7.5	10.0	17	MH	2.8	M	2.2
R 2	360	9	4/17/2019	6	6.8	3.2	17.7	MH	82.9	LM	1639	138	7.2	1.8	56.5	8.4	6.7	10	M	1.2	L	1.2
R 3	360	9	12/8/2020	6.6	7	2.6	19.3	MH	140	MH	2078	260	7.6	2.7	62.9	14.4	4.4	10	M	1.4	L	2.3
R 4	360	9	12/30/2021	6.1	6.8	2.9	10.2	M	65.4	L	2056	220	8.2	1.3	58	11.4	5.1	10	M	1.4	L	1.4
R 5A	360M	9	2/4/2020	5.8	6.7	2	46.2	VH	99.5	LM	1655	153	8.5	1.8	48.1	7.8	6.2	8	M	1.8	M	1.5
R 6E	360	9	12/8/2020	6.4	6.9	2.3	7.8	M	74.6	L	2124	236	7.2	1.6	67.7	14	4.8	10	M	1.7	L	1.8

Soil tests are performed by Spectrum Analytic using Mehlich III chemistry and converted to Morgan equivalent. All relevant tests are reported in lbs/acre.

Key: OM = Organic Matter CEC = Cation Exchange Capacity P = Phosphorus K = Potassium MG = Magnesium Ca = Calcium S= Sulphur B = Boron Zn = Zinc Cu = Copper Ca_MG = Calcium_Magnesium Ratio

FieldName	Split	Map	SampleDate	pH	BPH	OM	P	Plev	K	KLev	Ca	Mg	CEC	KSat	CaSat	MgSat	BCaMg	S	SLe	Zn	ZnLev	Cu
R 6W	360	9	12/8/2020	6.5	6.9	3.1	9.1	M	98.6	LM	2432	293	8.7	1.7	62.2	14.2	4.4	10	M	2	M	3.2
R 7	360	9	12/30/2021	6.2	6.9	2.3	7.7	M	67.3	L	1725	210	6.4	1.7	65.6	14	4.7	8	M	1	L	2.2
R 8	360	9	12/8/2020	6.5	6.9	3	24	H	104.1	M	2471	200	8.3	1.9	65.8	10.4	6.3	8	M	1.8	M	2.1
R 9	360	9	4/17/2019	7.2	0	2.8	398	VH	483.1	VH	5307	284	12.6	5.4	80.3	9.5	8.5	16	MH	12.8	H	6.6
R 10	360	9	4/17/2019	6.3	6.9	3.3	73.4	VH	121.6	MH	2577	215	7.9	2.3	71	11.6	6.1	20	MH	7.6	MH	7.1
R 11	360	9	4/17/2019	6.2	6.6	3.9	66.3	VH	122.5	MH	2380	193	11.1	1.7	47.7	7.5	6.4	15	MH	7.8	MH	7.2
R 12A	360	9	12/8/2020	5.8	6.6	2.5	2	L	99.5	LM	1734	269	10.3	1.5	41	11	3.7	10	M	1.6	L	1.9
R 12B	360	9	12/8/2020	6	6.5	2.3	3.7	L	76.5	L	1625	276	11.3	1.1	35.7	10.3	3.5	10	M	1.6	L	1.3
R 13	360	9	2/4/2020	6.2	6.7	3.8	103.4	VH	405.8	VH	3037	188	11.4	5.1	56.2	7.1	7.9	8	M	4.7	MH	3.6
R 14	360	9	2/4/2020	6.2	6.8	3.1	105.6	VH	413.2	VH	3211	189	10.5	5.6	63.7	7.8	8.2	9	M	5.2	MH	4.3
X 22		9	12/30/2021	5.9	6.7	3	2	L	76.5	LM	1578	289	8.9	1.4	44.6	13.7	3.3	11	M	1.1	L	3.7
B 6	360M	10	2/4/2020	6.4	6.6	4.1	109.9	VH	483.1	VH	3490	188	13.4	5.1	53.1	6	8.8	9	M	4.9	MH	3.8
B 8	360	10	2/4/2020	6.2	6.8	2.7	46.6	VH	232.9	VH	2318	126	8.5	4	61.2	6.6	9.3	9	M	2	M	2.8
B 12	360	10	2/4/2020	6.2	6.8	2.5	50.8	VH	265.1	VH	2101	143	8.2	4.7	58.7	7.6	7.7	9	M	2.1	M	2.7
B 13	360	10	4/10/2013	6.9	7	3.3	101.6	VH	765.6	VH	3359	272	10.7	10.1	64.6	10.8	6.0	27	MH	4	MH	3.5
B 14	360	10	2/4/2020	6.1	6.7	2.8	45.4	VH	277	VH	2339	151	9.9	4	52.9	6.7	7.9	9	M	2.2	M	3.5
B 15	360	10	2/4/2020	6.2	6.5	2.3	48.4	VH	289.9	VH	2187	189	12.2	3.4	40.8	6.7	6.1	9	M	2.1	M	3.5
B 16	360	10	12/7/2020	7	0	3.1	223.9	VH	112.4	MH	5666	217	13.6	1.3	78.9	6.8	11.6	12	M	5.1	MH	4.7
B 17	360	10	12/7/2020	7.1	0	3.1	145.5	VH	249.4	VH	4212	271	10.8	3.3	77	10.6	7.3	14	MH	3.9	M	6
Tucker 1		11	12/7/2020	6.1	6.7	4.1	7	M	169.4	H	1856	429	10.1	2.5	44	17.7	2.5	27	MH	2.3	M	4.1
Tucker 2		11	12/7/2020	6.1	6.6	5.1	15.9	MH	163	H	2278	474	12.1	2	42.3	16.2	2.6	20	MH	2.9	M	2.3
Tucker 3		11	12/7/2020	6.1	6.7	3.1	2.8	L	81.1	LM	1308	331	8.6	1.5	40.8	16	2.5	18	MH	1.5	L	2.9

Soil tests are performed by Spectrum Analytic using Mehlich III chemistry and converted to Morgan equivalent. All relevant tests are reported in lbs/acre.

Key: OM = Organic Matter CEC = Cation Exchange Capacity P = Phosphorus K = Potassium MG = Magnesium Ca = Calcium S = Sulphur B = Boron Zn = Zinc Cu = Copper Ca_MG = Calcium_Magnesium Ratio

FieldName	Split	Map	SampleDate	pH	BPH	OM	P	Plev	K	KLev	Ca	Mg	CEC	KSat	CaSat	MgSat	BCaMg	S	SLe	Zn	ZnLev	Cu
Tucker 4		11	12/7/2020	6.3	7.1	3.2	7.8	M	99.5	M	1512	346	5.5	2.8	70.6	26.6	2.7	19	MH	1.5	L	4.9
Tucker 5		11	12/7/2020	6.4	7	4.1	12.3	M	146.4	H	2006	389	6.5	3.3	71.8	24.9	2.9	22	MH	2.1	M	8.5
Tucker 6		11	12/7/2020	5.8	6.6	4.1	7.6	M	98.6	LM	1516	312	10.1	1.5	38.2	13	2.9	19	MH	1.9	M	3
Z 1A		11	2/4/2020	6.4	6.9	2.3	5.7	LM	156.5	H	1107	274	5.8	4	55.2	20	2.8	15	MH	1	L	4.7
SH 1		12	2/18/2020	6.6	7	3.6	98.5	VH	321.2	VH	3510	379	11.5	4	62.2	13.8	4.5	19	MH	6.8	MH	5.7
ST 1	160M	12	6/3/2020	5.6	6.6	3	15	MH	108.7	M	1157	151	8.9	1.9	36.8	7.4	5.0	11	M	1.8	M	3.4
ST 2	360	12	1/28/2019	6.1	6.8	2.3	10.7	M	119.7	M	1983	202	8.1	2.2	57.4	10.7	5.4	21	MH	1.4	L	2.5
ST 3	160M	12	6/3/2020	5.8	6.6	2.9	12.8	M	76.5	L	1162	160	8.9	1.4	36.9	7.8	4.7	9	M	1.3	L	3.3
ST 4	160M	12	6/3/2020	5.9	6.5	3.3	28.9	H	199.8	VH	1095	146	10.1	2.9	31.4	6.3	5.0	17	MH	1.8	M	3.4
ST 5	360	12	12/30/2021	6	6.7	3.1	34.6	H	356.2	VH	1584	171	8.8	5.8	45.1	8.4	5.4	11	M	3.5	M	4.4
ST 6	360	12	12/30/2021	6.1	6.6	3.3	20.1	H	224.6	VH	1538	179	9.8	3.3	39.8	7.9	5.0	15	MH	2.8	M	4.2
ST 7	360	12	12/30/2021	6.1	7	2.4	12.1	M	124.3	MH	1313	151	4.4	4.3	80.7	15.1	5.3	13	MH	1.8	M	3.4
ST 8	360	12	12/7/2020	6	6.6	3.6	22.3	H	135.4	MH	1734	186	10	2	42.2	8	5.3	14	MH	3.1	M	4
ST 9	360	12																				
ST 11	360	12	12/7/2020	5.8	6.6	3.6	11	M	217.2	VH	1479	224	9.9	3.2	38.5	9.7	4.0	19	MH	2.2	M	5
ST 12	360	12	4/10/2013	6.1	6.8	3.6	8.5	M	199.8	H	1982	279	8.5	3.4	54.5	13.9	3.9	20	MH	1.5	L	2.3
ST 13	360	12	12/30/2021	5.7	6.9	2.8	4.3	L	132.6	MH	709	131	4.5	4.4	56.1	12.8	4.4	11	M	1.3	L	2.9
ST 14	360	12	4/10/2013	5.6	6.6	3.5	4.5	L	244.8	VH	867	293	9.2	3.9	30.4	13.4	2.3	19	MH	4	MH	0.3
ST 15	360	12	4/10/2013	6	6.7	4.5	6.9	M	282.6	VH	1791	336	9.7	4.2	44.4	14.5	3.1	17	MH	2.6	M	0.3
ST 16	360	12	12/7/2020	5.8	6.9	3.1	8.8	M	201.6	VH	660	140	4.6	6.5	53.7	13.5	4.0	14	MH	1.9	M	5.7
ST 17	360	12	11/29/2017	5.8	6.6	2.3	8.6	M	206.2	VH	991	189	8.9	3.4	33.6	9.1	3.7	20	MH	2.5	M	3.8
ST 18	360	12	12/7/2020	5.9	6.7	3.7	11.8	M	142.7	H	1660	198	8.8	2.4	46.8	9.7	4.8	13	MH	2.3	M	5.6

Soil tests are performed by Spectrum Analytic using Mehlich III chemistry and converted to Morgan equivalent. All relevant tests are reported in lbs/acre.

Key: OM = Organic Matter CEC = Cation Exchange Capacity P = Phosphorus K = Potassium MG = Magnesium Ca = Calcium S = Sulphur B = Boron Zn = Zinc Cu = Copper Ca_MG = Calcium_Magnesium Ratio

FieldName	Split	Map	SampleDate	pH	BPH	OM	P	Plev	K	KLev	Ca	Mg	CEC	KSat	CaSat	MgSat	BCaMg	S	SLe	Zn	ZnLev	Cu
ST 19	360	12	4/10/2013	6.4	7	3.7	12.9	M	231	VH	2897	282	7.7	4.4	80.2	15.5	5.2	23	MH	2.2	M	3.1
ST 20	360	12	12/7/2020	5.8	6.6	2.5	13.8	MH	121.6	MH	1553	186	9.7	1.9	40.5	8.2	4.9	11	M	2.4	M	3.4
ST 21N		12	12/30/2021	5.7	6.8	2.7	2	L	67.3	L	672	222	5.9	1.8	41.7	16	2.6	12	M	1.4	L	4.5
ST 21S		12	12/7/2020	5.8	6.6	4.1	6.4	M	265.1	VH	1344	224	9.7	3.9	36.9	9.8	3.8	17	MH	2.1	M	8.2
Z 1B		12	2/4/2020	6.6	6.9	1.7	8	M	141.8		1216	287	6	3.5	56.3	20.2	2.8	14	MH	1.2	L	6.9
EV 1N		14	12/23/2016	6.6	6.8	3.1	29.7	H	340.5	VH	2679	403	10	4.9	58.2	16.9	3.4	19	MH	4.3	MH	8.3
EV 1S		14	4/9/2014	6.3	6.9	3.3	18.5	MH	126.2	MH	2910	420	9.3	2	66.3	18.7	3.5	14	MH	3.6	M	1.4
EV 2		14	2/4/2020	6.2	6.8	5.6	18.1	MH	283.5	VH	1230	327	7.6	5.4	44.8	18.1	2.5	12	M	3.3	M	8.4
EV 3		14	2/4/2020	6	6.6	1.8	19.3	MH	282.6	VH	627	217	8.5	4.8	28.1	10.8	2.6	11	M	3.8	M	7.3

Soil tests are performed by Spectrum Analytic using Mehlic III chemistry and converted to Morgan equivalent. All relevant tests are reported in lbs/acre.

MANURE ANALYSIS REPORT

Sample Number: 28210940
Date Sampled: 12/30/21
Date Received: 1/3/2022
Date Mailed: 1/5/2022
Statement ID: P1
Kind: Manure, Liquid (090)
Description: P1

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.017 %	.33	1.34
Ammonium Nitrogen	.009 %	.17	.70
Organic Nitrogen	.008 %	.16	.64
Phosphorus (P)	.002 %	.03	.12
Phosphate Equivalent (P205)	.003 %	.07	.27
Potassium (K)	.027 %	.55	2.19
Potash Equivalent (K20)	.033 %	.66	2.64
Total Solids	.26 %		
Density	.96 kg/l	60.08 Lbs/CuFt	8.03 Lbs/Gal
pH	7.8		

MANURE ANALYSIS REPORT

Sample Number: 28210950
Date Sampled: 12/30/21
Date Received: 1/3/2022
Date Mailed: 1/5/2022
Statement ID: P2
Kind: Manure, Liquid (090)
Description: P2

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.036 %	.72	3.01
Ammonium Nitrogen	.012 %	.24	.99
Organic Nitrogen	.024 %	.48	2.02
Phosphorus (P)	.010 %	.20	.81
Phosphate Equivalent (P205)	.022 %	.45	1.86
Potassium (K)	.024 %	.48	1.99
Potash Equivalent (K20)	.029 %	.57	2.39
Total Solids	1.05 %		
Density	1.00 kg/l	62.31 Lbs/CuFt	8.33 Lbs/Gal
pH	3.9		

MANURE ANALYSIS REPORT

Sample Number: 28210960
Date Sampled: 12/30/21
Date Received: 1/3/2022
Date Mailed: 1/5/2022
Statement ID: P3
Kind: Manure, Liquid (090)
Description: P3

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.015 %	.29	1.21
Ammonium Nitrogen	.009 %	.18	.73
Organic Nitrogen	.006 %	.12	.48
Phosphorus (P)	.002 %	.05	.20
Phosphate Equivalent (P205)	.006 %	.11	.46
Potassium (K)	.042 %	.84	3.49
Potash Equivalent (K20)	.050 %	1.01	4.20
Total Solids	.32 %		
Density	1.00 kg/l	62.31 Lbs/CuFt	8.33 Lbs/Gal
pH	7.8		

MANURE ANALYSIS REPORT

Sample Number: 28210970
Date Sampled: 12/30/21
Date Received: 1/3/2022
Date Mailed: 1/5/2022
Statement ID: P4
Kind: Manure, Liquid (090)
Description: P4

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.014 %	.29	1.20
Ammonium Nitrogen	.007 %	.14	.59
Organic Nitrogen	.007 %	.15	.61
Phosphorus (P)	.002 %	.03	.12
Phosphate Equivalent (P205)	.003 %	.07	.29
Potassium (K)	.029 %	.58	2.40
Potash Equivalent (K20)	.035 %	.69	2.89
Total Solids	.27 %		
Density	1.00 kg/l	62.31 Lbs/CuFt	8.33 Lbs/Gal
pH	7.7		

MANURE ANALYSIS REPORT

Sample Number: 27776130
Date Sampled:
Date Received: 7/22/2021
Date Mailed: 7/27/2021
Statement ID: P1
Kind: Misc. - Liquid (076)
Description: P1

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.057 %	1.13	4.66
Ammonium Nitrogen	.024 %	.48	1.99
Organic Nitrogen	.032 %	.65	2.67
Phosphorus (P)	.004 %	.08	.34
Phosphate Equivalent (P205)	.009 %	.19	.78
Potassium (K)	.059 %	1.18	4.86
Potash Equivalent (K20)	.071 %	1.42	5.85
Total Solids	.37 %		
Density	.99 kg/l	61.69 Lbs/CuFt	8.25 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27776140
Date Sampled:
Date Received: 7/22/2021
Date Mailed: 7/27/2021
Statement ID: P2
Kind: Misc. - Solid (077)
Description: P2

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.374 %	7.48	30.83
Ammonium Nitrogen	.021 %	.42	1.72
Organic Nitrogen	.353 %	7.06	29.11
Phosphorus (P)	.057 %	1.14	4.69
Phosphate Equivalent (P205)	.130 %	2.60	10.74
Potassium (K)	.052 %	1.04	4.31
Potash Equivalent (K20)	.063 %	1.26	5.19
Total Solids	3.28 %		
Density	.99 kg/l	61.69 Lbs/CuFt	8.25 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27776150
Date Sampled:
Date Received: 7/22/2021
Date Mailed: 7/27/2021
Statement ID: P3
Kind: Misc. - Liquid (076)
Description: P3

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.032 %	.64	2.65
Ammonium Nitrogen	.009 %	.17	.70
Organic Nitrogen	.024 %	.47	1.95
Phosphorus (P)	.003 %	.07	.27
Phosphate Equivalent (P205)	.008 %	.15	.63
Potassium (K)	.057 %	1.13	4.66
Potash Equivalent (K20)	.068 %	1.36	5.62
Total Solids	.33 %		
Density	.99 kg/l	61.69 Lbs/CuFt	8.25 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27776160
Date Sampled:
Date Received: 7/22/2021
Date Mailed: 7/27/2021
Statement ID: P4
Kind: Misc. - Liquid (076)
Description: P4

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.045 %	.90	3.74
Ammonium Nitrogen	.013 %	.26	1.10
Organic Nitrogen	.032 %	.64	2.64
Phosphorus (P)	.000 %	.00	.01
Phosphate Equivalent (P205)	.000 %	.01	.02
Potassium (K)	.038 %	.77	3.18
Potash Equivalent (K20)	.046 %	.92	3.83
Total Solids	.33 %		
Density	1.00 kg/l	62.18 Lbs/CuFt	8.31 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27586390
Date Sampled: 05/12/21
Date Received: 5/13/2021
Date Mailed: 5/17/2021
Statement ID: P2
Kind: Misc. - Liquid (076)
Description: P2

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.054 %	1.09	4.49
Ammonium Nitrogen	.018 %	.35	1.45
Organic Nitrogen	.037 %	.74	3.04
Phosphorus (P)	.024 %	.47	1.96
Phosphate Equivalent (P205)	.054 %	1.09	4.48
Potassium (K)	.022 %	.44	1.83
Potash Equivalent (K2O)	.027 %	.54	2.21
Total Solids	1.77 %		
Density	.99 kg/l	61.69 Lbs/CuFt	8.25 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27586400
Date Sampled: 05/12/21
Date Received: 5/13/2021
Date Mailed: 5/17/2021
Statement ID: P4
Kind: Misc. - Liquid (076)
Description: P4

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.020 %	.39	1.62
Ammonium Nitrogen	.013 %	.26	1.09
Organic Nitrogen	.007 %	.13	.53
Phosphorus (P)	.001 %	.03	.11
Phosphate Equivalent (P205)	.003 %	.06	.25
Potassium (K)	.039 %	.79	3.24
Potash Equivalent (K20)	.047 %	.95	3.90
Total Solids	.40 %		
Density	.99 kg/l	61.57 Lbs/CuFt	8.23 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27629110
Date Sampled: 05/27/21
Date Received: 6/3/2021
Date Mailed: 6/9/2021
Statement ID: P1
Kind: Manure, Liquid (090)
Description: P1

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.039 %	.78	3.19
Ammonium Nitrogen	.022 %	.44	1.79
Organic Nitrogen	.017 %	.34	1.40
Phosphorus (P)	.006 %	.12	.49
Phosphate Equivalent (P205)	.014 %	.27	1.12
Potassium (K)	.053 %	1.06	4.34
Potash Equivalent (K2O)	.064 %	1.28	5.23
Total Solids	.40 %		
Density	.98 kg/l	61.32 Lbs/CuFt	8.20 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27629120
Date Sampled: 05/27/21
Date Received: 6/3/2021
Date Mailed: 6/9/2021
Statement ID: P2
Kind: Manure, Liquid (090)
Description: P2

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.020 %	.40	1.64
Ammonium Nitrogen	.012 %	.24	.98
Organic Nitrogen	.008 %	.16	.66
Phosphorus (P)	.005 %	.11	.45
Phosphate Equivalent (P205)	.012 %	.25	1.02
Potassium (K)	.046 %	.92	3.82
Potash Equivalent (K2O)	.056 %	1.11	4.60
Total Solids	.33 %		
Density	.99 kg/l	61.81 Lbs/CuFt	8.26 Lbs/Gal

Unionville Rd

H 3

H 2C

15.4

H 2B

6.1

H 2A

6.8

Nash Rd

52.1

H 1

F 3

H 3S

8.9

20.5

12.3

H 4

12

F 1

F 2

11.4

E Union Rd

G 1

G 3

Windfall Rd

11.3

G 2

5.4

28

Conrad

20.6

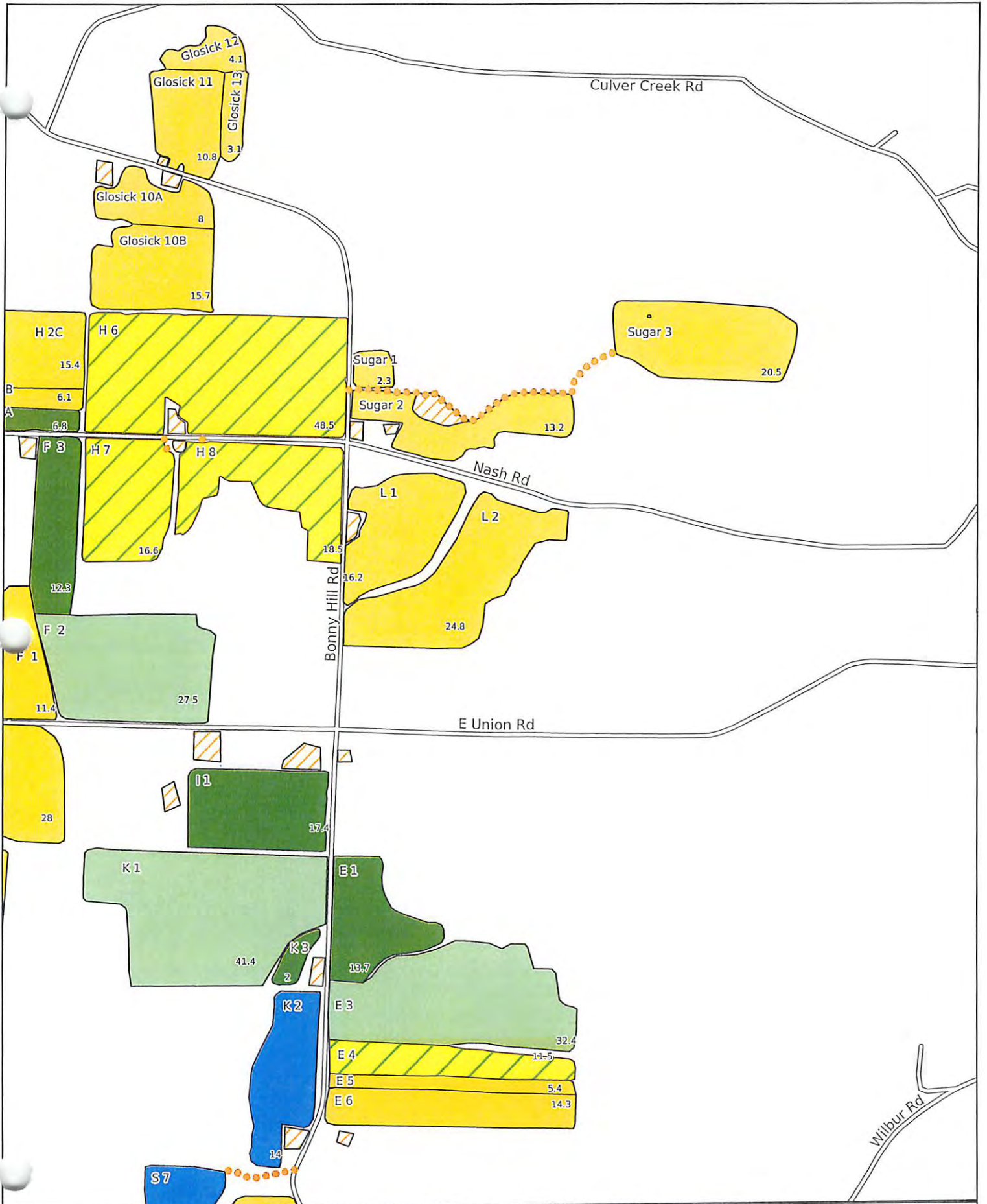
2022
crop
projections

Leo Dickson & Sons
Map #1
Farm #953

2022 Crop Maps
05-13-2022

0 500



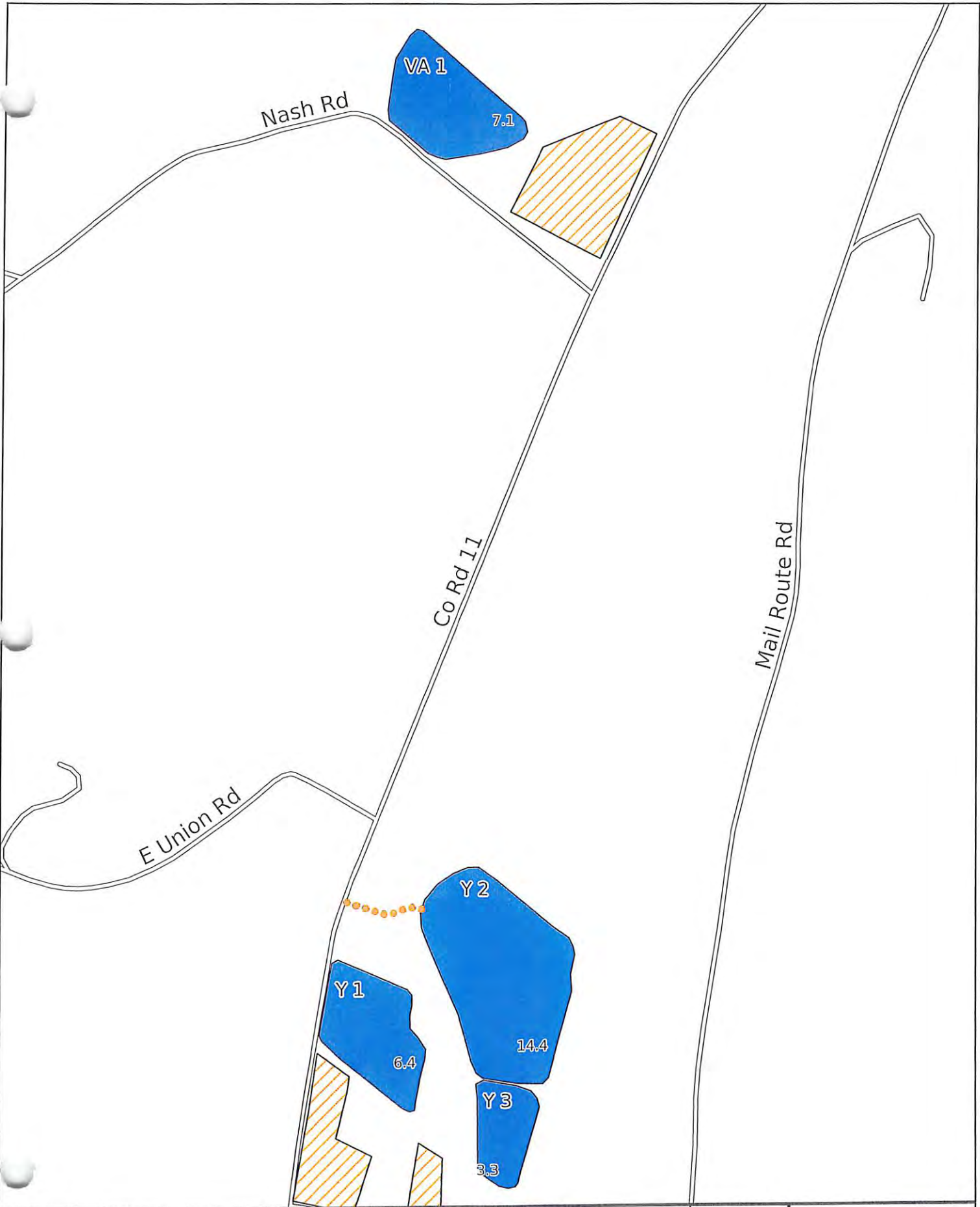


Leo Dickson & Sons
 Map #2
 Farm #953

2022 Crop Maps
 05-13-2022

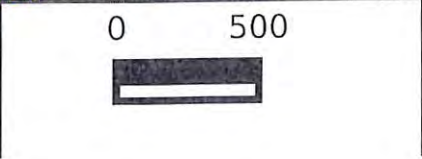
0 500





Leo Dickson & Sons
Map #3
Farm #953

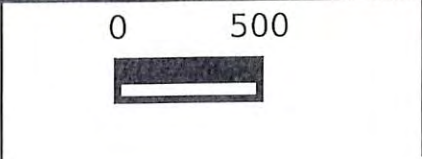
2022 Crop Maps
05-13-2022

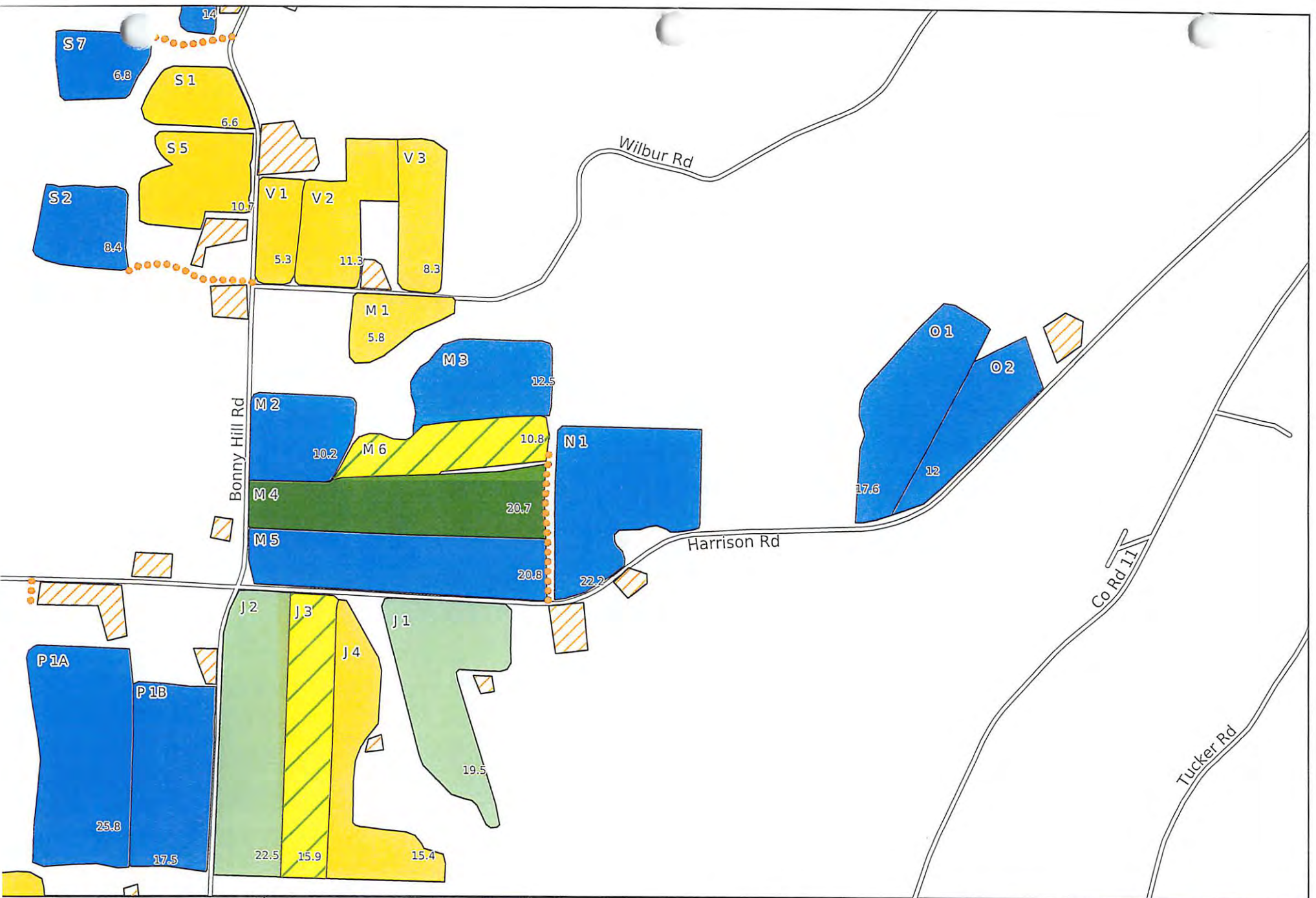




Leo Dickson & Sons
 Map #4
 Farm #953

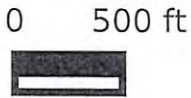
2022 Crop Maps
 05-13-2022

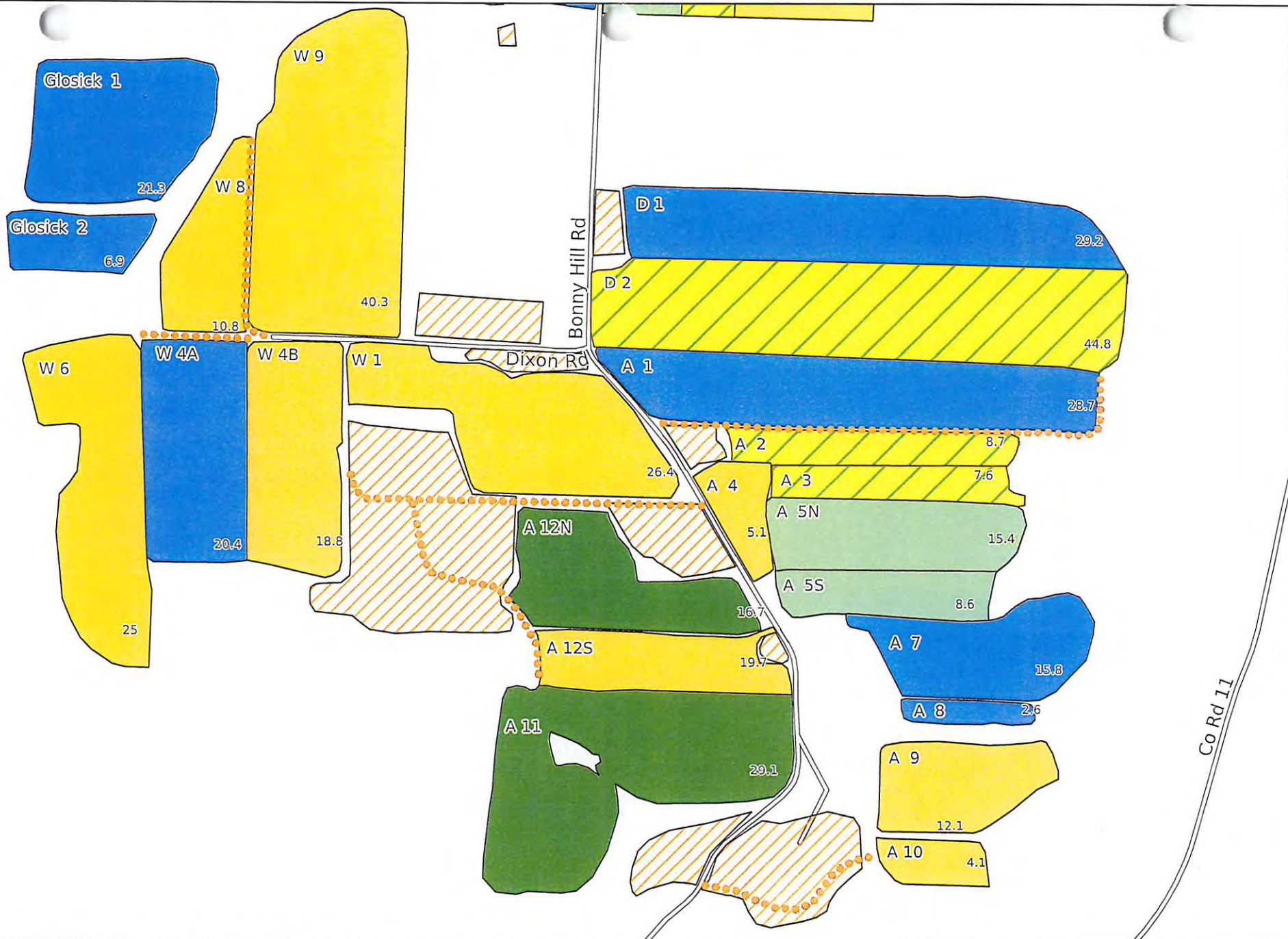




Leo Dickson & Sons
 Map #5
 Farm #953

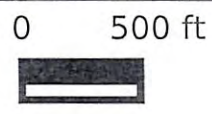
2022 Crop Maps
 05-13-2022

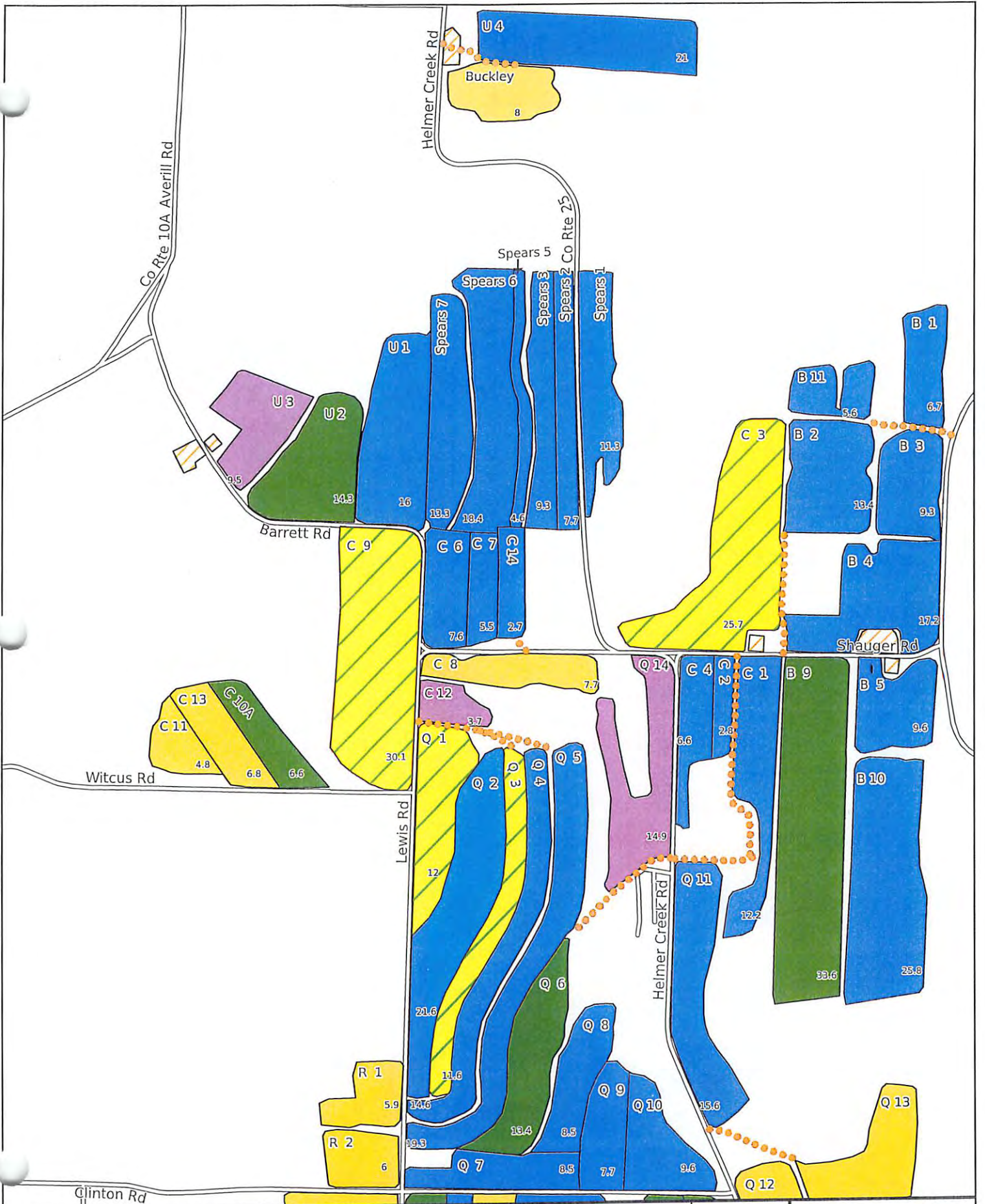




Leo Dickson & Sons
 Map #6
 Farm #953

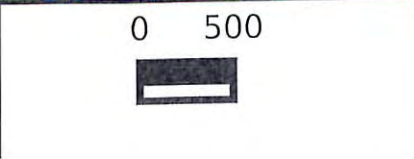
2022 Crop Maps
 05-13-2022





Leo Dickson & Sons
 Map #7
 Farm #953

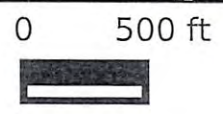
2022 Crop Maps
 05-13-2022

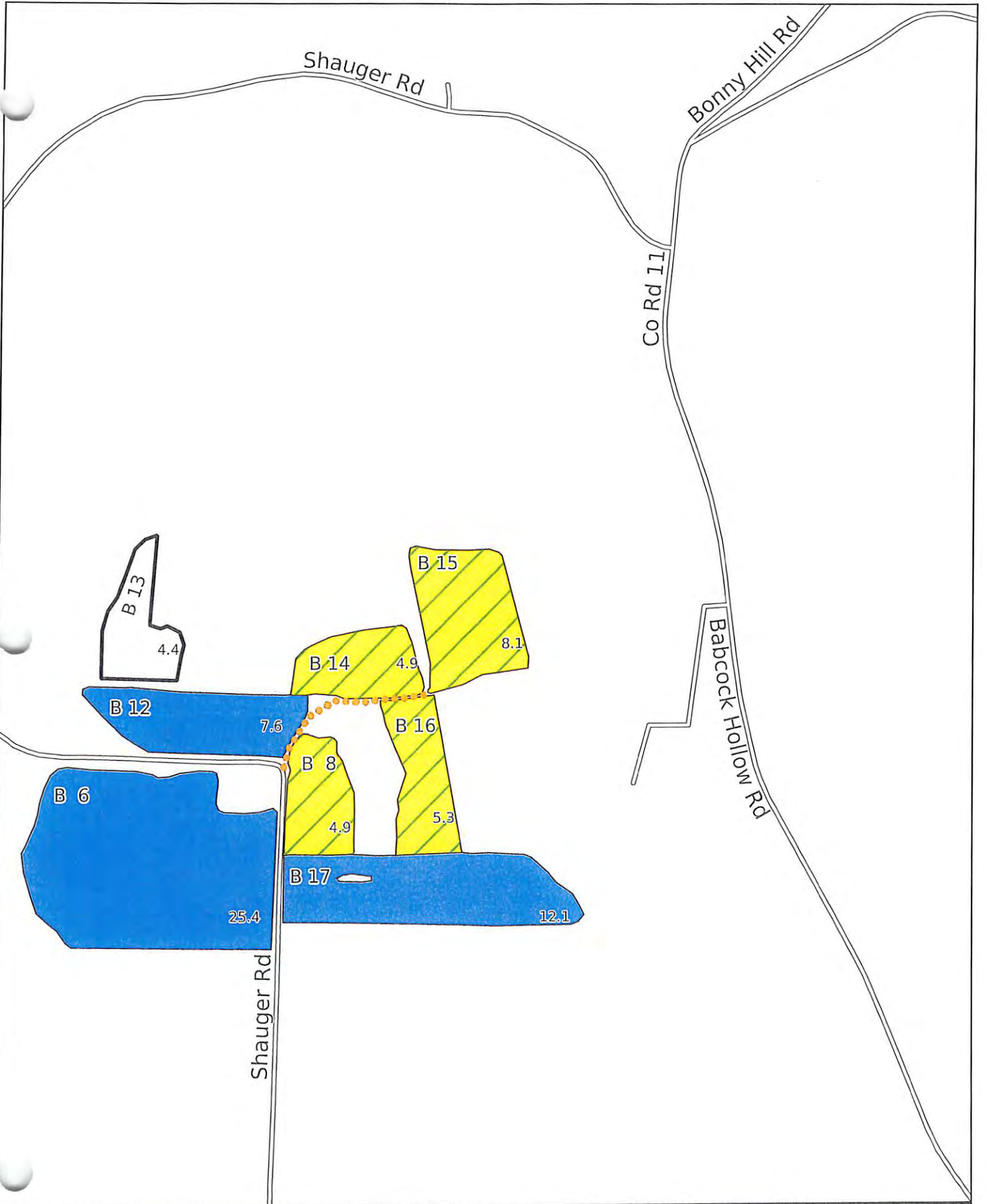




Leo Dickson & Sons
 Map #8
 Farm #953

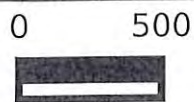
2022 Crop Maps
 05-13-2022





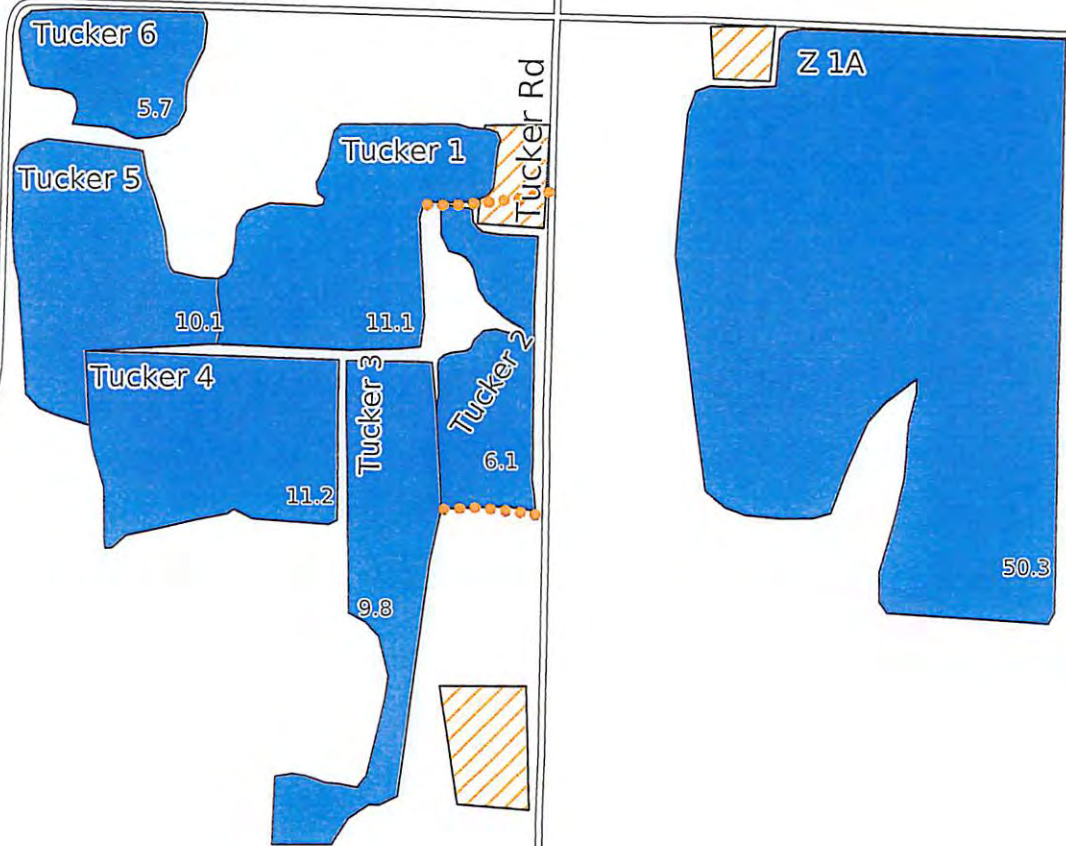
Leo Dickson & Sons
 Map #9
 Farm #953

2022 Crop Maps
 05-13-2022



Co Rd 11

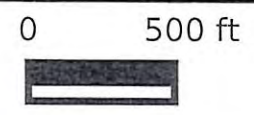
Mc Intosh Rd



Griffin Rd

Leo Dickson & Sons
Map #10
Farm #953

2022 Crop Maps
05-13-2022



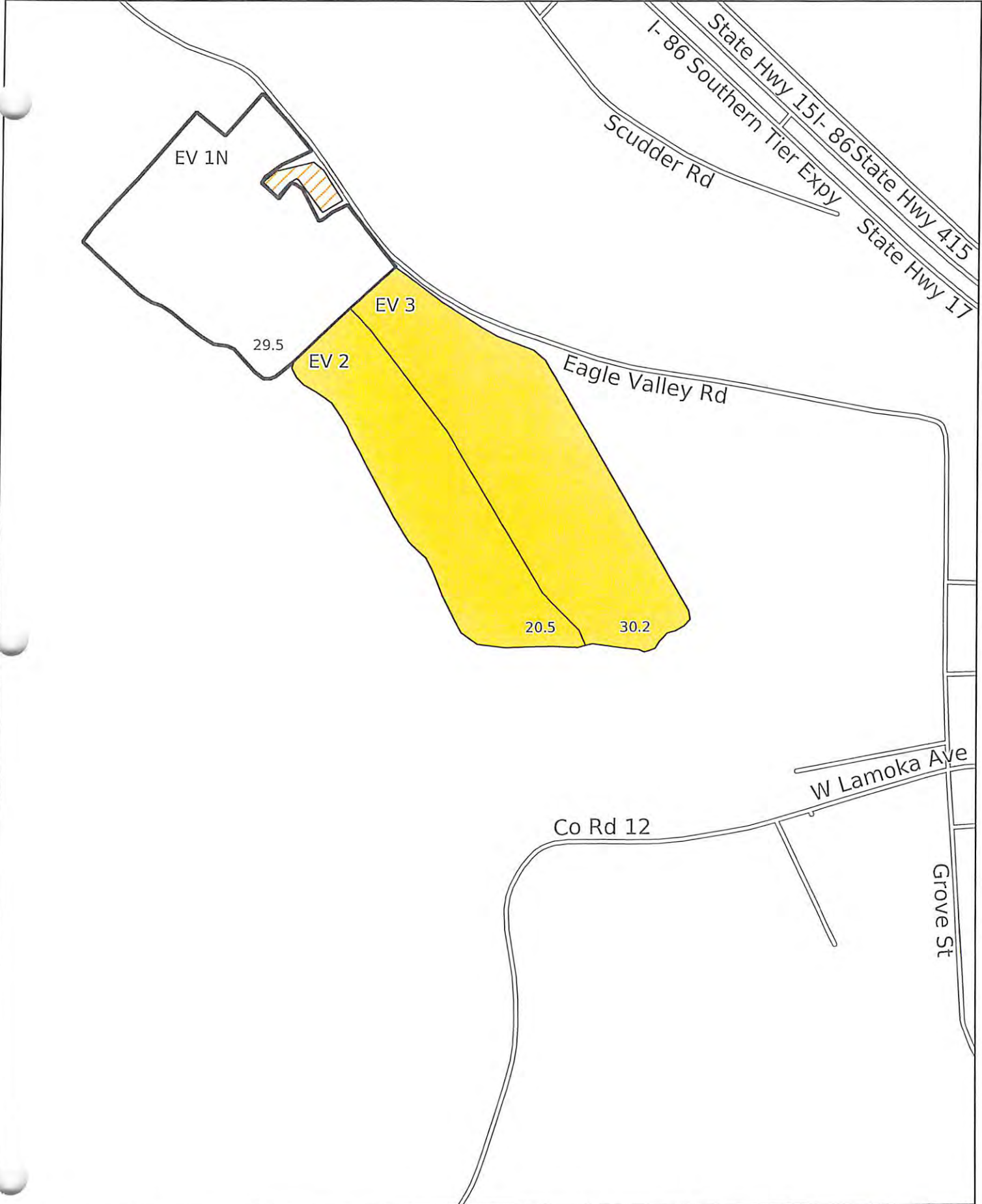


Leo Dickson & Sons
 Map #11
 Farm #953

2022 Crop Maps
 05-13-2022

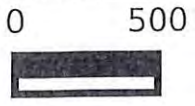
0 500





Leo Dickson & Sons
Map #12
Farm #953

2022 Crop Maps
05-13-2022



- Laneways
- Fields
- Corn From Sod
- Alfalfa/Grass
- CornGrain
- Alfalfa/Grass Seeding
- Soy Beans
- Grass
- Idle
- OtherFieldPolygons
- Buildings



Spring Manure Recommendation Leo Dickson & Sons

Friday May 13, 2022

10:57:51 AM

FieldName	Acres	Map	Crop	Yr	P P- index	D P- index	LI	Applied Manure Gallons	Applied Manure Tons	Rec Manure Gallons	Rec Manure Tons	Total Manure Gallons	Total Manure Tons	Spreading Comments
A 1	28.7	6	Soy Beans	1	H	H	M					0	0.0	
A 2	8.7	6	Corn from Sod	1	VH	VH	M					0	0.0	
A 3	7.6	6	Corn from Sod	1	H	H	M					0	0.0	
A 4	5.1	6	Corn Grain	1	H	H	M					0	0.0	
A 5N	15.4	6	Alfalfa/Grass Seeding	1	H	H	M					0	0.0	
A 5S	8.6	6	Alfalfa/Grass Seeding	1	H	H	M					0	0.0	
A 7	15.8	6	Soy Beans	1	VH	VH	M	6,076				6,076	0.0	
A 8	2.6	6	Soy Beans	1	L	L	M					0	0.0	
A 9	12.1	6	Corn Grain	1	L	L	M					0	0.0	
A 10	4.1	6	Corn Grain	1	L	L	M					0	0.0	
A 11	29.1	6	Alfalfa/Grass	10	H	H	M					0	0.0	
A 12N	16.7	6	Alfalfa/Grass	7	H	H	M					0	0.0	
A 12S	19.7	6	Corn Grain	1	H	H	M	3,299				3,299	0.0	
B 1	6.7	7	Soy Beans	1	L	L	M					0	0.0	
B 2	13.4	7	Soy Beans	1	VH	VH	M					0	0.0	
B 3	9.3	7	Soy Beans	1	L	L	M					0	0.0	
B 4	17.2	7	Soy Beans	1	H	H	M					0	0.0	
B 5	9.6	7	Soy Beans	1	L	L	M					0	0.0	
B 6	25.4	9	Soy Beans	1	VH	VH	M					0	0.0	

FieldName	Acres	Map	Crop	Yr	P P- index	D P- index	LI	Applied Manure Gallons	Used Manure Tons	Rec Manure Gallons	Rec Manure Tons	Total Manure Gallons	Total Manure Tons	Spreading Co efficients
Conrad	20.6	2	Corn Grain	2	-	-	M					0	0.0	
D 1	29.2	6	Soy Beans	1	H	H	M					0	0.0	
D 2	44.8	6	Corn from Sod	1	VH	VH	M					0	0.0	
E 1	13.7	2	Alfalfa/Grass	7	L	L	M					0	0.0	
E 3	32.4	2	Alfalfa/Grass Seeding	1	H	H	M	2,679				2,679	0.0	
E 4	11.5	2	Corn from Sod	1	L	L	M					0	0.0	
E 5	5.4	2	Corn Grain	1	L	L	M					0	0.0	
E 6	14.3	2	Corn Grain	1	L	L	M					0	0.0	
EV 2	20.5	12	Corn Grain	3	L	L	M					0	0.0	
EV 3	30.2	12	Corn Grain	3	L	L	M					0	0.0	
F 1	11.4	1	Corn Grain	1	L	L	M					0	0.0	
F 2	27.5	2	Alfalfa/Grass Seeding	1	H	H	M	3,607				3,607	0.0	
F 3	12.3	1	Alfalfa/Grass	7	L	VH	M					0	0.0	
F 4	13	4	Soy Beans	1	VH	VH	M	3,815				3,815	0.0	
F 5	1.6	4	Soy Beans	1	L	L	M					0	0.0	
F 6	5.4	4	Soy Beans	1	L	VH	M					0	0.0	
F 7	8.3	4	Soy Beans	1	M	VH	M					0	0.0	
F 8	8.7	4	Soy Beans	1	L	L	M					0	0.0	
F 9	6.7	4	Soy Beans	1	VH	VH	M					0	0.0	
F 10A	17.2	4	Corn Grain	1	VH	VH	M					0	0.0	
F 10B	15.6	4	Soy Beans	1	VH	VH	M	7,154				7,154	0.0	
F 11	19.6	4	Soy Beans	1	VH	VH	M	1,265				1,265	0.0	

FieldName	Acres	Map	Crop	Yr	P P- index	D P- index	LI	Applied Manure Gallons	Used Manure Tons	Rec Manure Gallons	Rec Manure Tons	Total Manure Gallons	Total Manure Tons	Spreading Co nts
F 12	21	4	Alfalfa/Grass	8	L	M	M					0	0.0	
F 13	9.3	4	Alfalfa/Grass	8	L	VH	M					0	0.0	
F 14	6.8	4	Corn Grain	1	H	H	L					0	0.0	
F 15	18.9	4	Soy Beans	1	VH	VH	M	4,921				4,921	0.0	
F 16	20.6	4	Alfalfa/Grass	6	H	VH	M					0	0.0	
F 17	10.5	4	Alfalfa/Grass	7	L	L	M					0	0.0	
F 19	12.1	4	Corn Grain	1	L	M	M	5,124				5,124	0.0	
F 20	21.4	4	Soy Beans	1	VH	VH	M					0	0.0	
F 21	43.7	4	Corn Grain	2	L	VH	M					0	0.0	
F 23	22.9	4	Alfalfa/Grass	6	L	L	M					0	0.0	
G 1	11.3	1	Alfalfa/Grass	4	L	L	M					0	0.0	
G 2	5.4	1	Alfalfa/Grass	4	VH	VH	M					0	0.0	
G 3	28	1	Corn Grain	1	H	H	M					0	0.0	
Glosick 1	21.3	6	Soy Beans	1	VH	VH	M					0	0.0	
Glosick 2	6.9	6	Soy Beans	1	VH	VH	M					0	0.0	
Glosick 10A	8	2	Corn Grain	1	L	L	M					0	0.0	
Glosick 10B	15.7	2	Corn Grain	1	L	L	M					0	0.0	
Glosick 11	10.8	2	Corn Grain	2	L	L	M	9,333				9,333	0.0	
Glosick 12	4.1	2	Corn Grain	1	L	L	M	9,333				9,333	0.0	
Glosick 13	3.1	2	Corn Grain	1	L	L	M	9,333				9,333	0.0	
H 1	20.5	1	Alfalfa/Grass	4	L	L	M					0	0.0	
H 2A	6.8	1	Alfalfa/Grass	7	L	L	M					0	0.0	
H 2B	6.1	1	Corn Grain	1	L	H	M					0	0.0	

FieldName	Acres	Map	Crop	Yr	P P- index	D P- index	LI	Applied Manure Gallons	Applied Manure Tons	Rec Manure Gallons	Rec Manure Tons	Total Manure Gallons	Total Manure Tons	Spreading Co efficients
H 2C	15.4	1	Corn Grain	1	H	H	M					0	0.0	
H 3	52.1	1	Corn Grain	1	VH	VH	M	4,798				4,798	0.0	
H 3S	8.9	1	Corn Grain	1	L	L	M					0	0.0	
H 4	12	1	Corn from Sod	1	L	L	M					0	0.0	
H 6	48.5	2	Corn from Sod	1	-	-	M					0	0.0	
H 7	16.6	2	Corn from Sod	1	-	-	M					0	0.0	
H 8	18.5	2	Corn from Sod	1	-	-	M					0	0.0	
I 1	17.4	2	Alfalfa/Grass	7	L	L	M					0	0.0	
J 1	19.5	5	Alfalfa/Grass Seeding	1	VH	VH	M					0	0.0	
J 2	22.5	5	Alfalfa/Grass Seeding	1	VH	VH	M	8,320				8,320	0.0	
J 3	15.9	5	Corn from Sod	1	VH	VH	M					0	0.0	
J 4	15.4	5	Corn Grain	1	VH	VH	M	3,325				3,325	0.0	
K 1	41.4	2	Alfalfa/Grass Seeding	1	L	L	M	7,899				7,899	0.0	
K 2	14	2	Soy Beans	1	L	L	M					0	0.0	
K 3	2	2	Alfalfa/Grass	3	L	M	M					0	0.0	
L 1	16.2	2	Corn Grain	1	L	L	M	5,926				5,926	0.0	
L 2	24.8	2	Corn Grain	1	L	L	M	3,548				3,548	0.0	
M 1	5.8	5	Corn Grain	1	VH	VH	M					0	0.0	
M 2	10.2	5	Soy Beans	1	VH	VH	M					0	0.0	
M 3	12.5	5	Soy Beans	1	VH	VH	M					0	0.0	
M 4	20.7	5	Alfalfa/Grass	4	VH	VH	M					0	0.0	
M 5	20.8	5	Soy Beans	1	VH	VH	M	3,606				3,606	0.0	

FieldName	Acres	Map	Crop	Yr	P P- index	D P- index	LI	Applied Manure Gallons	Applied Manure Tons	Rec Manure Gallons	Rec Manure Tons	Total Manure Gallons	Total Manure Tons	Spreading Co nts
M 6	10.8	5	Corn from Sod	1	VH	VH	M					0	0.0	
N 1	22.2	5	Soy Beans	1	VH	VH	M	5,405				5,405	0.0	
O 1	17.6	5	Soy Beans	1	VH	VH	M					0	0.0	
O 2	12	5	Soy Beans	1	VH	VH	M					0	0.0	
P 1A	25.8	5	Soy Beans	1	H	H	M					0	0.0	
P 1B	17.5	5	Soy Beans	1	M	M	M					0	0.0	
Q 1	12	7	Corn from Sod	1	H	H	M					0	0.0	
Q 2	21.6	7	Soy Beans	1	L	H	L					0	0.0	
Q 3	11.6	7	Corn from Sod	1	L	L	M					0	0.0	
Q 4	14.6	7	Soy Beans	1	VH	VH	M					0	0.0	
Q 5	19.3	7	Soy Beans	1	VH	VH	M					0	0.0	
Q 6	13.4	7	Alfalfa/Grass	8	VH	VH	M					0	0.0	
Q 7	8.5	7	Soy Beans	1	L	L	M					0	0.0	
Q 8	8.5	7	Soy Beans	1	M	M	M					0	0.0	
Q 9	7.7	7	Soy Beans	1	L	L	M					0	0.0	
Q 10	9.6	7	Soy Beans	1	M	M	M					0	0.0	
Q 11	15.6	7	Soy Beans	1	H	H	M					0	0.0	
Q 13	12.7	8	Corn Grain	5	VH	VH	M					0	0.0	
Q 14	14.9	7	Grass	14	L	L	M					0	0.0	
R 4	15	8	Alfalfa/Grass	3	L	L	M					0	0.0	
R 5A	23.9	8	Alfalfa/Grass	3	L	L	M					0	0.0	
R 7	10.8	8	Alfalfa/Grass	6	L	L	M					0	0.0	
R 8	9.8	8	Alfalfa/Grass	8	L	L	M					0	0.0	

FieldName	Acres	Map	Crop	Yr	P P- index	D P- index	LI	Applied Manure Gallons	Applied Manure Tons	Rec Manure Gallons	Rec Manure Tons	Total Manure Gallons	Total Manure Tons	Spreading Cc ents
R 9	6.8	8	Soy Beans	1	L	L	M					0	0.0	
R 11	32.9	8	Soy Beans	1	M	M	M					0	0.0	
R 13	9	8	Alfalfa/Grass	3	VH	VH	M					0	0.0	
R 14	8.2	8	Alfalfa/Grass	3	VH	VH	M					0	0.0	
S 1	6.6	5	Corn Grain	1	L	L	M					0	0.0	
S 2	8.4	5	Soy Beans	1	L	L	M					0	0.0	
S 5	10.7	5	Corn Grain	1	L	L	M					0	0.0	
S 7	6.8	5	Soy Beans	1	VH	VH	M					0	0.0	
SH 1	27.4	11	Corn Grain	1	VH	VH	M					0	0.0	
Spears 1	11.3	7	Soy Beans	1	L	L	M					0	0.0	
Spears 2	7.7	7	Soy Beans	1	L	L	M					0	0.0	
Spears 3	9.3	7	Soy Beans	1	L	L	M					0	0.0	
Spears 5	4.6	7	Soy Beans	1	L	L	M					0	0.0	
Spears 6	18.4	7	Soy Beans	1	L	L	M					0	0.0	
Spears 7	13.3	7	Soy Beans	1	M	M	M					0	0.0	
ST 1	24.6	11	Soy Beans	1	L	L	M					0	0.0	
ST 4	34.9	11	Alfalfa/Grass Seeding	1	L	L	L					0	0.0	
ST 5	27.5	11	Corn Grain	4	L	L	M					0	0.0	
ST 6	21.4	11	Corn Grain	4	L	L	M					0	0.0	
ST 11	25.5	11	Corn Grain	2	L	L	M					0	0.0	
ST 13	3.4	11	Corn Grain	2	L	L	M					0	0.0	
ST 16	14.7	11	Corn Grain	2	L	L	M					0	0.0	
ST 18	12.8	11	Corn Grain	2	L	L	M					0	0.0	

FieldName	Acres	Map	Crop	Yr	P P- index	D P- index	LI	Applied Manure Gallons	Used Manure Tons	Rec Manure Gallons	Rec Manure Tons	Total Manure Gallons	Total Manure Tons	Spreading Cc ents
ST 20	5.5	11	Corn Grain	2	L	L	M					0	0.0	
ST 21N	17.6	11	Alfalfa/Grass	6	L	L	L					0	0.0	
Tucker 1	11.1	10	Soy Beans	1	L	L	M					0	0.0	
Tucker 2	6.1	10	Soy Beans	1	L	L	M					0	0.0	
Tucker 3	9.8	10	Soy Beans	1	L	L	M					0	0.0	
Tucker 4	11.2	10	Soy Beans	1	L	L	M					0	0.0	
Tucker 5	10.1	10	Soy Beans	1	L	L	M					0	0.0	
Tucker 6	5.7	10	Soy Beans	1	L	L	M					0	0.0	
U 1	16	7	Soy Beans	1	H	H	M					0	0.0	
U 2	14.3	7	Alfalfa/Grass	7	L	L	M					0	0.0	
U 3	9.5	7	Grass	11	L	L	M					0	0.0	
U 4	21	7	Soy Beans	1	L	M	M					0	0.0	
V 1	5.3	5	Corn Grain	1	L	L	M					0	0.0	
V 2	11.3	5	Corn Grain	1	VH	VH	M					0	0.0	
V 3	8.3	5	Corn Grain	1	L	VH	M					0	0.0	
VA 1	7.1	3	Soy Beans	1	L	L	M					0	0.0	
W 1	26.4	6	Corn Grain	2	VH	VH	M	303				303	0.0	
W 4A	20.4	6	Soy Beans	1	VH	VH	M					0	0.0	
W 4B	18.8	6	Corn Grain	2	VH	VH	M					0	0.0	
W 6	25	6	Corn Grain	1	H	H	M					0	0.0	
W 8	10.8	6	Corn Grain	1	L	L	M					0	0.0	
W 9	40.3	6	Corn Grain	2	VH	VH	M	3,494				3,494	0.0	
Y 1	6.4	3	Soy Beans	1	L	L	M					0	0.0	

MANURE ANALYSIS REPORT

Sample Number: 27776130
 Date Sampled:
 Date Received: 7/22/2021
 Date Mailed: 7/27/2021
 Statement ID: P1
 Kind: Misc. - Liquid (076)
 Description: P1

953 - Dickson

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.057 %	1.13	4.66
Ammonium Nitrogen	.024 %	.48	1.99
Organic Nitrogen	.032 %	.65	2.67
Phosphorus (P)	.004 %	.08	.34
Phosphate Equivalent (P205)	.009 %	.19	.78
Potassium (K)	.059 %	1.18	4.86
Potash Equivalent (K2O)	.071 %	1.42	5.85
Total Solids	.37 %		
Density	.99 kg/l	61.69 Lbs/CuFt	8.25 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27776140
 Date Sampled:
 Date Received: 7/22/2021
 Date Mailed: 7/27/2021
 Statement ID: P2
 Kind: Misc. - Solid (077)
 Description: P2

953 - Dickson

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.374 %	7.48	30.88
Ammonium Nitrogen	.021 %	.42	1.72
Organic Nitrogen	.353 %	7.06	29.11
Phosphorus (P)	.057 %	1.14	4.69
Phosphate Equivalent (P205)	.130 %	2.60	10.74
Potassium (K)	.052 %	1.04	4.31
Potash Equivalent (K20)	.063 %	1.26	5.19
Total Solids	3.28 %		
Density	.99 kg/l	61.69 Lbs/CuFt	8.25 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27776150
 Date Sampled:
 Date Received: 7/22/2021
 Date Mailed: 7/27/2021
 Statement ID: P3
 Kind: Misc. - Liquid (076)
 Description: P3

953 - Dickson

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.032 %	.64	2.65
Ammonium Nitrogen	.009 %	.17	.70
Organic Nitrogen	.024 %	.47	1.95
Phosphorus (P)	.003 %	.07	.27
Phosphate Equivalent (P205)	.008 %	.15	.63
Potassium (K)	.057 %	1.13	4.66
Potash Equivalent (K2O)	.068 %	1.36	5.62
Total Solids	.33 %		
Density	.99 kg/l	61.69 Lbs/CuFt	8.25 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 27776160
 Date Sampled:
 Date Received: 7/22/2021
 Date Mailed: 7/27/2021
 Statement ID: P4
 Kind: Misc. - Liquid (076)
 Description: P4

953 - Dickson

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.045 %	.90	3.74
Ammonium Nitrogen	.013 %	.26	1.10
Organic Nitrogen	.032 %	.64	2.64
Phosphorus (P)	.000 %	.00	.01
Phosphate Equivalent (P205)	.000 %	.01	.02
Potassium (K)	.038 %	.77	3.18
Potash Equivalent (K2O)	.046 %	.92	3.83
Total Solids	.33 %		
Density	1.00 kg/l	62.18 Lbs/CuFt	8.31 Lbs/Gal



Agro-One
Agronomy Services

730 Warren Rd. Ithaca, NY 14850

Telephone: 800.344.2697 Fax: 607.257.1350

MANURE ANALYSIS REPORT

Sample Number: 26942120
 Date Sampled: 08/10/20
 Date Received: 8/13/2020
 Date Mailed: 8/18/2020
 Statement ID: MAIN DAIRY LAGOON
 Kind: Cattle-Liquid <3 Mo (080)
 Description: MAIN DAIRY LAGOON

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.282 %	5.64	23.83
Ammonium Nitrogen	.122 %	2.44	10.30
Organic Nitrogen	.160 %	3.21	13.54
Phosphorus (P)	.056 %	1.12	4.75
Phosphate Equivalent (P205)	.129 %	2.58	10.88
Potassium (K)	.256 %	5.11	21.57
Potash Equivalent (K20)	.308 %	6.15	25.99
Total Solids	6.10 %		
Density	1.01 kg/l	63.17 Lbs/CuFt	8.44 Lbs/Gal
pH	7.7		



CUMBERLAND VALLEY ANALYTICAL SERVICES

"Laboratory services for agriculture ... from the field to the feed bunk"

Farm: DICKSON ENV.
Desc: #953 SLUDE PILE BY LWR
Submitter: WESTERN NY CROP MANAGEMENT, .
Account: GDW-826

Copies to:

Lab ID: 29683 014
Sampled: 12/11/2020
Arrived: 12/16/2020
Completed: 12/22/2020
Reported: 12/22/2020

Analysis Report

Results Reported on "As Received/Wet" Sample

ANALYTE	%(Wet-Basis)	Lbs/1000 Gal	Lbs/Ton
Solids	19.2		
Moisture	80.8		
Total Nitrogen	1.08	89.9	21.6
Ammonium Nitrogen	0.059	4.92	1.18
Organic Nitrogen	1.02	85	20.4
P2O5	1.25	104	24.9
K2O	0.13	10.9	2.62
Ca	0.56	46.5	11.1
Mg	0.069	5.76	1.38
Na	0.03	2.5	0.6
P	0.54	45.3	10.8
K	0.11	9.1	2.18

ANALYTE	mg/kg	Lbs/1000 Gal	Lbs/Ton
Cu	74.8	0.63	0.15
Mn	37.6	0.31	0.075
Fe	2110	17.6	4.23
Zn	73.2	0.61	0.15

OPTIONAL TESTS	
Density (lbs / gallon)	8.89
Density (lb / cu ft)	66.5
Volatile Solids, % wet-basis	
Water Soluble P (g/kg dry matter)	
P Source Coefficient	
pH	7.37



Cumberland Valley Analytical Services, Inc.



4999 Zane A. Miller Drive, Waynesboro, PA 17268
www.foragelab.com | mail@foragelab.com | 301-790-1980 | 800-CVAS-LAB

MANURE ANALYSIS REPORT

 LEO DICKSON & SONS
 5226 BONNY MILL ROAD
 BATH, NY 14810

 Sample Number: 26505470
 Date Sampled: 02/07/20
 Date Received: 2/13/2020
 Date Mailed: 2/17/2020
 Statement ID: 953 LEO DICKSON & SONS
 Kind: Cattle-Solid < 6 Mo (084)
 Description: HEIFER PACK

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.647 %	12.9	49.8
Ammonium Nitrogen	.071 %	1.4	5.5
Organic Nitrogen	.576 %	11.5	44.4
Phosphorus (P)	.123 %	2.5	9.5
Phosphate Equivalent (P205)	.282 %	5.6	21.7
Potassium (K)	.607 %	12.1	46.8
Potash Equivalent (K20)	.731 %	14.6	56.3
Total Solids	22.53 %		
Density	.92 kg/l	57.62 Lbs/CuFt	7.70 Lbs/Gal

MANURE ANALYSIS REPORT

 LEE DICKSON & SONS
 5226 BENNY HILL RD
 BATH, NY 14810

 Sample Number: 26673140
 Date Sampled: 05/13/20
 Date Received: 5/18/2020
 Date Mailed: 5/20/2020
 Statement ID: 953 LEE DICKSON & SONS
 Kind: Cattle-Solid Daily (083)
 Description: COMPOSITE BIOSOLIDS

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.640 %	12.80	51.92
Ammonium Nitrogen	.030 %	.59	2.41
Organic Nitrogen	.610 %	12.20	49.50
Phosphorus (P)	.483 %	9.66	39.21
Phosphate Equivalent (P205)	1.107 %	22.15	89.84
Potassium (K)	.043 %	.85	3.46
Potash Equivalent (K20)	.051 %	1.03	4.17
Total Solids	16.53 %		
Density	.97 kg/l	60.70 Lbs/CuFt	8.11 Lbs/Gal

MANURE ANALYSIS REPORT

 DICKSON ENVIROMENTAL
 5226 BUNNY HILL ROAD
 BATH, NY 14810

 Sample Number: 24618490
 Date Sampled: 03/09/18
 Date Received: 3/8/2018
 Date Mailed: 3/9/2018
 Statement ID: 953 DICKSON ENVIROMENTAL
 Kind: Manure, Semi-Solid (091)
 Description: BATH WWTP SLUDGE

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.773 %	15.5	59.9
Ammonia Nitrogen	.000 %	.0	.0
Organic Nitrogen	.773 %	15.5	59.9
Phosphorus (P)	.283 %	5.7	21.9
Phosphate Equivalent (P2O5)	.649 %	13.0	50.3
Potassium (K)	.060 %	1.2	4.7
Potash Equivalent (K2O)	.072 %	1.4	5.6
Total Solids	16.38 %		
Density	.93 kg/l	57.99 Lbs/CuFt	7.75 Lbs/Gal

MANURE ANALYSIS REPORT

Sample Number: 25982530
Date Sampled:
Date Received: 8/8/2019
Date Mailed: 8/12/2019
Statement ID: LWR OUT FLOW 8/1/19
Kind: Misc. - Liquid (076)
Description: LWR OUT FLOW 8/1/19

Dicksons Environmental Serv Inc
 5226 Bonny Hill Road
 Bath, NY 14810

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.024 %	.5	2.0
Ammonium Nitrogen	.021 %	.4	1.8
Organic Nitrogen	.003 %	.1	.2
Phosphorus (P)	.005 %	.1	.4
Phosphate Equivalent (P205)	.012 %	.2	1.0
Potassium (K)	.061 %	1.2	5.1
Potash Equivalent (K20)	.074 %	1.5	6.1
Total Solids	.43 %		
Density	1.00 kg/l	62.18 Lbs/CuFt	8.31 Lbs/Gal
pH	7.3		

MANURE ANALYSIS REPORT

Dicksons Environmental Serv Inc
 5226 Bonny Hill Road
 Bath, NY 14810

Sample Number: 25889380
 Date Sampled: 06/19/19
 Date Received: 7/9/2019
 Date Mailed: 7/12/2019
 Statement ID: LWR
 Kind: Misc. - Solid (077)
 Description: LWR

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	1.062 %	21.2	88.1
Ammonium Nitrogen	.160 %	3.2	13.3
Organic Nitrogen	.902 %	18.0	74.8
Phosphorus (P)	.389 %	7.8	32.3
Phosphate Equivalent (P2O5)	.892 %	17.8	74.0
Potassium (K)	.125 %	2.5	10.4
Potash Equivalent (K2O)	.151 %	3.0	12.5
Total Solids	22.63 %		
Density	.99 kg/l	62.06 Lbs/CuFt	8.30 Lbs/Gal
pH	8.4		

MANURE ANALYSIS REPORT

Dicksons Environmental Serv Inc
 5226 Bonny Hill Road
 Bath, NY 14810

Sample Number: 25889400
 Date Sampled: 06/19/19
 Date Received: 7/9/2019
 Date Mailed: 7/12/2019
 Statement ID: WHITE BAG
 Kind: Misc. - Solid (077)
 Description: WHITE BAG
Sludge Pile

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	1.098 %	22.0	72.8
Ammonium Nitrogen	.002 %	.0	.1
Organic Nitrogen	1.097 %	21.9	72.7
Phosphorus (P)	1.042 %	20.8	69.1
Phosphate Equivalent (P205)	2.389 %	47.8	158.4
Potassium (K)	.408 %	8.2	27.0
Potash Equivalent (K2O)	.491 %	9.8	32.6
Total Solids	57.67 %		
Density	.79 kg/l	49.60 Lbs/CuFt	6.63 Lbs/Gal
pH	6.4		

MANURE ANALYSIS REPORT

Dicksons Environmental Serv Inc
 5226 Bonny Hill Road
 Bath, NY 14810

Sample Number: 25889390
 Date Sampled: 06/19/19
 Date Received: 7/9/2019
 Date Mailed: 7/12/2019
 Statement ID: YELLOW BAG
 Kind: Misc. - Solid (077)
 Description: YELLOW BAG
Compost Pile

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.886 %	17.7	57.7
Ammonium Nitrogen	.003 %	.1	.2
Organic Nitrogen	.883 %	17.7	57.5
Phosphorus (P)	.762 %	15.2	49.6
Phosphate Equivalent (P205)	1.745 %	34.9	113.7
Potassium (K)	.380 %	7.6	24.8
Potash Equivalent (K2O)	.458 %	9.2	29.8
Total Solids	47.99 %		
Density	.78 kg/l	48.73 Lbs/CuFt	6.51 Lbs/Gal
pH	7.4		

MANURE ANALYSIS REPORT

DICKSON ENVIROMENTAL
 5226 BUNNY HILL ROAD
 BATH, NY 14810

Sample Number: 25721350
 Date Sampled: 04/29/19
 Date Received: 5/2/2019
 Date Mailed: 5/13/2019
 Statement ID: 953 DICKSON ENVIRONMENTAL
 Kind: Cattle-Solid > 6 Mo (085)
 Description: COMPOST

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.871 %	17.4	59.4
Ammonium Nitrogen	.000 %	.0	.0
Organic Nitrogen	.871 %	17.4	59.4
Phosphorus (P)	1.153 %	23.1	78.6
Phosphate Equivalent (P2O5)	2.643 %	52.9	180.0
Potassium (K)	.225 %	4.5	15.3
Potash Equivalent (K2O)	.271 %	5.4	18.5
Total Solids	41.97 %		
Density	.82 kg/l	50.95 Lbs/CuFt	6.81 Lbs/Gal

MANURE ANALYSIS REPORT

 Dicksons Environmental Serv Inc
 5226 Bonny Hill Road
 Bath, NY 14810

 Sample Number: 23703920
 Date Sampled: 05/05/17
 Date Received: 5/9/2017
 Date Mailed: 5/10/2017
 Statement ID: CH-4 PIT
 Kind: Misc. - Liquid (076)
 Description: CH-4 PIT

Components	As Received	Lbs / Ton	Lbs / 1000 Gal
Nitrogen (N)	.832 %	16.6	70.1
Ammonia Nitrogen	.247 %	4.9	20.8
Organic Nitrogen	.585 %	11.7	49.3
Phosphorus (P)	.393 %	7.9	33.1
Phosphate Equivalent (P205)	.901 %	18.0	75.9
Potassium (K)	.071 %	1.4	6.0
Potash Equivalent (K20)	.085 %	1.7	7.2
Total Solids	12.09 %		
Density	1.01 kg/l	63.05 Lbs/CuFt	8.43 Lbs/Gal
pH	7.6		

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
-----------	------------	-------	----	------	-----	------------	----	---	--------	---	--------	----

Alfalfa/Grass

A 11	360	29.1	10		6	2/4/2020	6.3	75.6	VH	324	VH	2.7
A 12N	360	16.7	7		6	2/4/2020	6	64.5	VH	331.3	VH	3.6
B 9	360M	33.6	4	Estes	7	6/3/2020	6.9	264.5	VH	344.2	VH	2.1
C 10A	360	6.6	3		7	2/4/2020	6.6	29.2	H	110.5	M	3.1
E 1	360M	13.7	7	Dudley	2	2/4/2020	6.1	4.3	L	199.8	H	2.9
F 3	360M	12.3	7		1	12/17/2020	7.1	130.5	VH	85.7	LM	2.6
F 12	360M	21	8		4	6/3/2020	6.6	135.9	VH	30.5	VL	3
F 13	360	9.3	8		4	12/22/2021	6.6	445.7	VH	140	MH	3.2
F 16	360M	20.6	6		4	6/3/2020	6.4	81.6	VH	42.4	VL	3.1
F 17	360	10.5	7		4	4/17/2019	6.1	61.9	VH	82.9	LM	3.1
F 23	360M	22.9	6	Smucker	4	6/3/2020	6	45.7	VH	94	M	3
G 1	360M	11.3	4		1	12/2/2020	7	97.1	VH	121.6	MH	2.5
G 2	360	5.4	4		1	12/2/2020	6.8	86.2	VH	98.6	LM	2.5
H 1	360M	20.5	4	Polniteer	1	6/3/2020	6.4	72.1	VH	190.6	H	2.8
H 2A	360	6.8	7	Polniteer	1	12/22/2021	6.9	131.4	VH	197	H	2.9
I 1	360M	17.4	7		2	6/3/2020	6.2	23.1	H	71.9	LM	2.2
K 3		2	3	Andy's Yard	2	2/4/2020	6.6	82.5	VH	103.2	M	2.4
M 4	360M	20.7	4		5	12/22/2021	6.6	187.9	VH	370	VH	3.2
Q 6	360M	13.4	8		7	2/4/2020	6.7	130.1	VH	175.8	H	2.5
R 4	360	15	3		8	12/30/2021	6.1	10.2	M	65.4	L	2.9
R 5A	360M	23.9	3		8	2/4/2020	5.8	46.2	VH	99.5	LM	2
R 7	360	10.8	6		8	12/30/2021	6.2	7.7	M	67.3	L	2.3
R 8	360	9.8	8		8	12/8/2020	6.5	24	H	104.1	M	3
R 13	360	9	3		8	2/4/2020	6.2	103.4	VH	405.8	VH	3.8
R 14	360	8.2	3		8	2/4/2020	6.2	105.6	VH	413.2	VH	3.1
ST 21N		17.6	6	Giles	11	12/30/2021	5.7	2	L	67.3	L	2.7
U 2	360	14.3	7		7	4/18/2022	6.2	32.7	H	81.1	LM	2.8

402.4

Alfalfa/Grass Seeding

A 5N	360	15.4	1		6	2/4/2020	6.4	73	VH	260.5	VH	2.9
A 5S	360	8.6	1		6	2/4/2020	6.4	71.7	VH	277	VH	2.3

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
E 3	360	32.4	1	Dudley	2	4/17/2019	6.4	72.5	VH	324	VH	3.6
F 2	360	27.5	1		2	4/17/2019	6.5	68.8	VH	132.6	MH	2.2
J 1	360	19.5	1		5	12/22/2021	6.7	219.3	VH	385.6	VH	2.8
J 2	360	22.5	1		5	12/22/2021	6.7	276.3	VH	373.6	VH	3.5
K 1	360	41.4	1		2	4/17/2019	5.2	2	L	151	H	3
ST 4	360M	34.9	1	Stewart	11	6/3/2020	5.9	28.9	H	199.8	VH	3.3

202.2

Corn from Sod

A 2	360M	8.7	1		6	6/3/2020	6.5	137	VH	232.9	VH	3.8
A 3	360	7.6	1		6	2/4/2020	6.5	77.3	VH	237.5	VH	2.6
B 8	360	4.9	1	Estes	9	2/4/2020	6.2	46.6	VH	232.9	VH	2.7
B 14	360	4.9	1	Estes	9	2/4/2020	6.1	45.4	VH	277	VH	2.8
B 15	360	8.1	1	Estes	9	2/4/2020	6.2	48.4	VH	289.9	VH	2.3
B 16	360	5.3	1	Estes	9	12/7/2020	7	223.9	VH	112.4	MH	3.1
C 3	360M	25.7	1		7	2/18/2020	6.6	121	VH	163	H	2.4
C 9	360M	30.1	1		7	2/4/2020	6.2	54	VH	190.6	H	2.3
D 2	360M	44.8	1		6	6/3/2020	6.5	92.1	VH	208	VH	
E 4	360	11.5	1	Dudley	2	2/4/2020	6	2.8	L	194.2	H	3.6
H 4	360M	12	1	Polmiter	1	12/22/2021	6.4	93	VH	108.7	M	3
H 6		48.5	1	Nash Road	2							
H 7		16.6	1	Nash Road	2							
H 8		18.5	1	Nash Road	2							
J 3	360M	15.9	1		5	12/22/2021	6.6	194.7	VH	282.6	VH	2.6
M 6	360M	10.8	1		5	12/22/2021	6.1	430.3	VH	433.4	VH	3
Q 1	360	12	1		7	12/7/2020	6.7	63.8	VH	130.8	MH	3.4
Q 3	360	11.6	1		7	2/4/2020	6.5	72.3	VH	59.9	L	2.1
ST 3	360M	25.2	1	Stewart	11	6/3/2020	5.8	12.8	M	76.5	L	2.9
X 22		31.6	1		8	12/30/2021	5.9	2	L	76.5	LM	3

354.3

Corn Grain

A 4	360	5.1	1		6	2/4/2020	6.2	78.5	VH	344.2	VH	2.2
A 9	360	12.1	1		6	4/17/2019	5.7	26.4	H	353.4	VH	2.9
A 10		4.1	1		6	4/17/2019	5.7	26.7	H	305.6	VH	2.8

FieldName	FieldSpllt	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
A 12S	360M	19.7	1		6	2/4/2020	6.1	59.7	VH	167.6	H	2.8
Buckley		8	1		7	2/4/2020	5.7	8.9	M	246.7	VH	2.9
C 8	360	7.7	1		7	4/17/2019	6.6	44.6	VH	272.4	VH	2.5
C 11	360	4.8	1		7	2/4/2020	6.2	16.8	MH	96.7	LM	2.3
C 13	360	6.8	1		7	2/4/2020	6.2	23.1	H	147.3	H	2.4
Conrad		20.6	2	E Union Road	2							
E 5	360	5.4	1	Dudley	2	4/17/2019	6.4	29.8	H	130.8	MH	2.8
E 6	360M	14.3	1	Dudley	2	6/3/2020	6.3	13.1	MH	76.5	L	2.8
EV 2		20.5	3	Eagle Valley Road	12	2/4/2020	6.2	18.1	MH	283.5	VH	5.6
EV 3		30.2	3	Eagle Valley Road	12	2/4/2020	6	19.3	MH	282.6	VH	1.8
F 1	360M	11.4	1		1	6/3/2020	5.9	27.4	H	94	LM	2.6
F 10A	360	17.2	1		4	12/2/2020	7.3	312.4	VH	69.1	L	3.8
F 14		6.8	1		4	2/18/2020	6.2	59.6	VH	40.6	VL	2.9
F 19	360	12.1	1		4	2/4/2020	6.9	136.7	VH	37.8	VL	2.8
F 21	360	43.7	2		4	4/17/2019	6.9	153.1	VH	121.6	MH	2.7
G 3	360	28	1		1	12/2/2020	6.6	61.2	VH	64.5	L	2.8
Glosick 10A		8	1	Glosick	2	12/22/2021	5.6	2	L	171.2	H	2.8
Glosick 10B		15.7	1	Glosick	2	12/22/2021	5.4	2	L	172.2	H	2.8
Glosick 11		10.8	2	Glosick	2	12/22/2021	5.7	2	L	385.6	VH	4
Glosick 12		4.1	1	Glosick	2	12/22/2021	5.2	2	L	280.7	VH	3.8
Glosick 13		3.1	1	Glosick	2	12/22/2021	5.3	2	L	262.3	VH	4.1
H 2B	360	6.1	1	Polmiter	1	12/22/2021	6.8	220.5	VH	407.7	VH	3.3
H 2C	360	15.4	1	Polmiter	1	12/22/2021	6.8	225	VH	306.5	VH	2.2
H 3	360	52.1	1	Polmiter	1	12/22/2021	5.8	96.8	VH	364.4	VH	3.2
H 3S	360	8.9	1	Polmiter	1	12/22/2021	6	60.7	VH	122.5	MH	2.5
J 4	360	15.4	1		5	12/22/2021	6	204.6	VH	360.8	VH	3.8
L 1	360	16.2	1		2	4/17/2019	6.4	13.6	MH	87.5	LM	3.4
L 2	360	24.8	1		2	4/17/2019	6.3	6.6	M	47	L	3.6
M 1	360	5.8	1		5	12/22/2021	6.8	208.8	VH	510.7	VH	2.8
Q 12	360	8.8	4		8	12/7/2020	6.3	33.2	H	47	L	2.8
Q 13	360	12.7	5		8	4/18/2022	6.7	99.3	VH	149.2	H	3.1
R 1	360	5.9	2		7	4/18/2022	6.5	40.8	VH	85.7	LM	3.2
R 2	360	6	2		7	4/18/2022	6.2	6.6	M	69.1	L	2.4
R 3	360	8.2	2		8	12/8/2020	6.6	19.3	MH	140	MH	2.6
R 6E	360	12.3	2		8	12/8/2020	6.4	7.8	M	74.6	L	2.3

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
R 6W	360	15.8	2		8	12/8/2020	6.5	9.1	M	98.6	LM	3.1
R 10	360	15.2	2		8	4/18/2022	6.4	56.9	VH	189.6	H	
R 12A	360	7.2	2		8	12/8/2020	5.8	2	L	99.5	LM	2.5
R 12B	360	10.3	2		8	12/8/2020	6	3.7	L	76.5	L	2.3
S 1		6.6	1		5	12/22/2021	6.2	3.7	L	155.6	H	2.5
S 5		10.7	1		5	12/22/2021	5.6	2	L	305.6	VH	3.6
SH 1		27.4	1	Bowblis	11	2/18/2020	6.6	98.5	VH	321.2	VH	3.6
ST 5	360	27.5	4	Stewart	11	12/30/2021	6	34.6	H	356.2	VH	3.1
ST 6	360	21.4	4	Stewart	11	12/30/2021	6.1	20.1	H	224.6	VH	3.3
ST 7	360	8.4	4	Stewart	11	12/30/2021	6.1	12.1	M	124.3	MH	2.4
ST 8	360	13.9	4	Stewart	11	12/7/2020	6	22.3	H	135.4	MH	3.6
ST 11	360	25.5	2	Stewart	11	12/7/2020	5.8	11	M	217.2	VH	3.6
ST 13	360	3.4	2	Stewart	11	12/30/2021	5.7	4.3	L	132.6	MH	2.8
ST 16	360	14.7	2	Stewart	11	12/7/2020	5.8	8.8	M	201.6	VH	3.1
ST 18	360	12.8	2	Stewart	11	12/7/2020	5.9	11.8	M	142.7	H	3.7
ST 20	360	5.5	2	Stewart	11	12/7/2020	5.8	13.8	MH	121.6	MH	2.5
ST 21S		24	2	Giles	11	12/7/2020	5.8	6.4	M	265.1	VH	4.1
Sugar 1		2.3	5		2	12/7/2020	5.8	11.3	M	117	MH	4.1
Sugar 2		13.2	5		2	12/7/2020	5.3	2	L	67.3	L	2.9
Sugar 3		20.5	5		2	12/7/2020	5	2	L	58.1	L	2.7
V 1		5.3	1		5	12/22/2021	5.8	2	L	246.7	VH	3.7
V 2	360	11.3	1		5	12/22/2021	6	303.3	VH	610.1	VH	3.3
V 3	360	8.3	1		5	12/22/2021	6.4	138.3	VH	442.6	VH	2.8
W 1	360M	26.4	2		6	6/3/2020	6.1	158.2	VH	351.6	VH	4
W 4B	360	18.8	2		6	12/2/2020	7.2	282.3	VH	600.9	VH	3.4
W 6	360	25	1		6	4/17/2019	6.2	72.4	VH	328.6	VH	3.3
W 8	360	10.8	1		6	4/17/2019	6.1	2	L	51.6	L	2.3
W 9	360M	40.3	2		6	6/3/2020	6.5	84.3	VH	149.2	H	2.7
		951.3										

Grass

C12	360	3.7	14		7	2/4/2020	6.2	7	M	78.3	L	3.6
Q14	360	14.9	14		7	2/4/2020	6.4	23.7	H	101.3	M	
U 3		9.5	11		7	4/18/2022	5.9	3.3	L	78.3	L	3.1
		28.1										

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
Idle												
B 13	360	4.4		Estes	9	4/10/2013	6.9	101.6	VH	765.6	VH	3.3
EV 1N		29.5	3	Eagle Valley Road	12	12/23/2016	6.6	29.7	H	340.5	VH	3.1
EV 1S			3	Eagle Valley Road	14	4/9/2014	6.8	18.5	MH	126.2	MH	3.3
ST 9	360	4.5		Stewart	11							
ST 12	360	4.3		Stewart	11	4/10/2013	6.1	8.5	M	199.8	H	3.6
ST 14	360	1.2		Stewart	11	4/10/2013	5.6	4.5	L	244.8	VH	3.5
ST 15	360	5.1		Stewart	11	4/10/2013	6	6.9	M	282.6	VH	4.5
ST 17	360	0.6	2	Stewart	11	11/29/2017	5.8	8.6	M	206.2	VH	2.3
ST 19	360	0.5	2	Stewart	11	4/10/2013	6.4	12.9	M	231	VH	3.7
50.1												

Soy Beans

A 1	360M	28.7	1		6	2/4/2020	6.3	71.3	VH	215.4	VH	3.3
A 7	360M	15.8	1		6	2/4/2020	6.2	72.3	VH	337.8	VH	3.1
A 8	360	2.6	1		6	4/17/2019	5.3	30.9	H	187.8	H	3.5
B 1	360	6.7	1	Estes	7	4/17/2019	5.9	12.1	M	55.3	L	1.7
B 2	360	13.4	1	Estes	7	12/8/2020	6.9	91.1	VH	249.4	VH	3.1
B 3	360	9.3	1	Estes	7	4/17/2019	5.5	2	L	36	VL	2.8
B 4	360M	17.2	1	Estes	7	6/3/2020	6.2	67.9	VH	122.5	MH	3.1
B 5	360	9.6	1	Estes	7	2/4/2020	6	16.6	MH	117.9	M	2.1
B 6	360M	25.4	1	Estes	9	2/4/2020	6.4	109.9	VH	483.1	VH	4.1
B 10	360M	25.8	1	Estes	7	2/4/2020	5.8	45.3	VH	151.9	H	3.1
B 11	360	5.6	1	Estes	7	2/4/2020	5.8	42	VH	158.4	H	2.8
B 12	360	7.6	1	Estes	9	2/4/2020	6.2	50.8	VH	265.1	VH	2.5
B 17	360	12.1	1	Estes	9	12/7/2020	7.1	145.5	VH	249.4	VH	3.1
C 1	360M	12.2	1		7	6/3/2020	7	141.9	VH	71.9	L	2.8
C 2	360	2.8	1		7	2/4/2020	7	192.7	VH	128.9	MH	3.3
C 4	360	6.6	1		7	2/18/2020	6.6	96	VH	163	H	2.5
C 6	360	7.6	1		7	2/4/2020	6.4	62.6	VH	117	M	2.8
C 7	360	5.5	1		7	2/4/2020	6.2	51.7	VH	197	H	2.6
C 14		2.7	1		7	2/4/2020	6.2	21.8	H	137.2	MH	2.8
D 1	360	29.2	1		6	12/2/2020	6.4	79.6	VH	407.7	VH	6.2
F 4	360	13	1		4	4/17/2019	7.1	171.8	VH	137.2	H	3.1
F 5	360	1.6	1		4	12/2/2020	6.5	34.3	H	126.2	H	2

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	IK	KLevel	OM
F 6	360	5.4	1		4	12/2/2020	7	129.9	VH	117	MH	8.3
F 7	360	8.3	1		4	12/2/2020	7.2	216.8	VH	107.8	MH	
F 8	360	8.7	1		4	12/2/2020	7.1	105.1	VH	128	MH	2.8
F 9	360	6.7	1		4	12/2/2020	6.8	106.5	VH	107.8	M	2.5
F 10B	360	15.6	1		4	2/18/2020	7.2	477.1	VH	92.1	M	3.8
F 11	360M	19.6	1		4	6/3/2020	6.3	177.3	VH	31.4	VL	3.4
F 15	360M	18.9	1		4	2/4/2020	6.5	152.5	VH	132.6	MH	3.2
F 20	360	21.4	1		4	2/4/2020	7	162.9	VH	40.6	VL	3.4
Glosick 1		21.3	1	Glosick	6	12/22/2021	6.2	269.3	VH	214.5	VH	3.8
Glosick 2		6.9	1	Glosick	6	12/22/2021	5.8	366.5	VH	358	VH	3.3
K 2		14	1		2	4/17/2019	5.2	2	L	137.2	MH	2.4
M 2	360	10.2	1		5	12/22/2021	6.8	546	VH	237.5	VH	3.5
M 3	360	12.5	1		5	12/22/2021	6.5	715.1	VH	356.2	VH	3
M 5	360	20.8	1		5	12/22/2021	6.6	304.7	VH	249.4	VH	2.3
N 1	360	22.2	1	Makitra	5	12/22/2021	5.5	671.9	VH	531	VH	3.3
O 1	360	17.6	1		5	12/22/2021	5.5	546	VH	469.3	VH	3.8
O 2	360	12	1		5	12/22/2021	6.2	616.8	VH	878.7	VH	3.7
P 1A	360M	25.8	1		5	2/4/2020	6	62.9	VH	297.3	VH	3.9
P 1B	360	17.5	1		5	2/4/2020	7.1	50.2	VH	260.5	VH	2.1
Q 2	360	21.6	1		7	2/4/2020	6.6	95.8	VH	78.3	LM	2.5
Q 4	360M	14.6	1		7	2/18/2020	6.4	87.7	VH	67.3	L	2.5
Q 5	360	19.3	1		7	2/4/2020	7.1	282.3	VH	166.6	H	2.3
Q 7	360	8.5	1		7	4/18/2022	6.5	39.4	H	344.2	VH	3.1
Q 8	360	8.5	1		7	2/4/2020	6.4	49.4	VH	85.7	LM	3.3
Q 9	360	7.7	1		7	4/18/2022	6.6	43.2	VH	306.5	VH	3.3
Q 10	360	9.6	1		7	4/18/2022	6.5	40.9	VH	244.8	VH	3.1
Q 11	360M	15.6	1		7	6/3/2020	6.3	62.5	VH	217.2	VH	2.8
R 9	360	6.8	1		8	4/18/2022	6.6	48.4	VH	115.1	M	2.8
R 11	360	32.9	1		8	4/18/2022	6.5	47.9	VH	288.1	VH	3.5
S 2		8.4	1		5	12/22/2021	6.1	2	L	269.7	VH	2.4
S 7		6.8	1		5	12/22/2021	6	115	VH	135.4	MH	3.3
Spears 1		11.3	1		7	4/18/2022	6.6	27.7	H	186	H	3.9
Spears 2		7.7	1		7	4/18/2022	6.2	18	MH	103.2	M	3.5
Spears 3		9.3	1		7	4/18/2022	6.4	19.9	MH	149.2	H	3.6
Spears 5		4.6	1		7	4/18/2022	5.6	2	L	119.7	M	2.8

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
Spears 6		18.4	1		7	4/18/2022	5	2	L	144.6	H	3.5
Spears 7		13.3	1		7	4/18/2022	6.2	51.2	VH	378.2	VH	4.1
ST 1	360M	24.6	1	Stewart	11	6/3/2020	5.6	15	MH	108.7	M	3
Tucker 1		11.1	1	Tucker	10	12/7/2020	6.1	7	M	169.4	H	4.1
Tucker 2		6.1	1	Tucker	10	12/7/2020	6.1	15.9	MH	163	H	5.1
Tucker 3		9.8	1	Tucker	10	12/7/2020	6.1	2.8	L	81.1	LM	3.1
Tucker 4		11.2	1	Tucker	10	12/7/2020	6.3	7.8	M	99.5	M	3.2
Tucker 5		10.1	1	Tucker	10	12/7/2020	6.4	12.3	M	146.4	H	4.1
Tucker 6		5.7	1	Tucker	10	12/7/2020	5.8	7.6	M	98.6	LM	4.1
U 1	360	16	1		7	4/18/2022	6.7	71	VH	171.2	H	2.4
U 4		21	1	Lee	7	2/4/2020	6.3	55.2	VH	197	H	2
VA 1		7.1	1		3	12/2/2020	5.3	9.2	M	128.9	MH	2.9
W 4A	360	20.4	1		6	12/2/2020	6.8	146.7	VH	519	VH	3.3
Y 1		6.4	1	Lehman	3	12/2/2020	4.9	2	L	56.2	L	2.2
Y 2		14.4	1	Lehman	3	12/2/2020	4.9	2	L	37.8	VL	2.8
Y 3		3.3	1	Lehman	3	12/2/2020	5.1	2	L	48.9	VL	2.1
Z 1A		50.3	1	Savona Hill	10	2/4/2020	6.4	5.7	LM	156.5	H	2.3
Z 1B			1	Savona Hill	12	2/4/2020	6.6	8	M	141.8		1.7

988.8

2977

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
-----------	------------	-------	----	------	-----	------------	----	---	--------	---	--------	----

Alfalfa/Grass

A 11	360	29.1	10		6	2/4/2020	6.3	75.6	VH	324	VH	2.7
A 12N	360	16.7	7		6	2/4/2020	6	64.5	VH	331.3	VH	3.6
B 9	360M	33.6	4	Estes	7	6/3/2020	6.9	264.5	VH	344.2	VH	2.1
C 10A	360	6.6	3		7	2/4/2020	6.6	29.2	H	110.5	M	3.1
E 1	360M	13.7	7	Dudley	2	2/4/2020	6.1	4.3	L	199.8	H	2.9
F 3	360M	12.3	7		1	12/17/2020	7.1	130.5	VH	85.7	LM	2.6
F 12	360M	21	8		4	6/3/2020	6.6	135.9	VH	30.5	VL	3
F 13	360	9.3	8		4	12/22/2021	6.6	445.7	VH	140	MH	3.2
F 16	360M	20.6	6		4	6/3/2020	6.4	81.6	VH	42.4	VL	3.1
F 17	360	10.5	7		4	4/17/2019	6.1	61.9	VH	82.9	LM	3.1
F 23	360M	22.9	6	Smucker	4	6/3/2020	6	45.7	VH	94	M	3
G 1	360M	11.3	4		1	12/2/2020	7	97.1	VH	121.6	MH	2.5
G 2	360	5.4	4		1	12/2/2020	6.8	86.2	VH	98.6	LM	2.5
H 1	360M	20.5	4	Polmitteer	1	6/3/2020	6.4	72.1	VH	190.6	H	2.8
H 2A	360	6.8	7	Polmitteer	1	12/22/2021	6.9	131.4	VH	197	H	2.9
I 1	360M	17.4	7		2	6/3/2020	6.2	23.1	H	71.9	LM	2.2
K 3		2	3	Andy's Yard	2	2/4/2020	6.6	82.5	VH	103.2	M	2.4
M 4	360M	20.7	4		5	12/22/2021	6.6	187.9	VH	370	VH	3.2
Q 6	360M	13.4	8		7	2/4/2020	6.7	130.1	VH	175.8	H	2.5
R 4	360	15	3		8	12/30/2021	6.1	10.2	M	65.4	L	2.9
R 5A	360M	23.9	3		8	2/4/2020	5.8	46.2	VH	99.5	LM	2
R 7	360	10.8	6		8	12/30/2021	6.2	7.7	M	67.3	L	2.3
R 8	360	9.8	8		8	12/8/2020	6.5	24	H	104.1	M	3
R 13	360	9	3		8	2/4/2020	6.2	103.4	VH	405.8	VH	3.8
R 14	360	8.2	3		8	2/4/2020	6.2	105.6	VH	413.2	VH	3.1
ST 21N		17.6	6	Giles	11	12/30/2021	5.7	2	L	67.3	L	2.7
U 2	360	14.3	7		7	4/18/2022	6.2	32.7	H	81.1	LM	2.8

402.4

Alfalfa/Grass Seeding

A 5N	360	15.4	1		6	2/4/2020	6.4	73	VH	260.5	VH	2.9
A 5S	360	8.6	1		6	2/4/2020	6.4	71.7	VH	277	VH	2.3

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
E 3	360	32.4	1	Dudley	2	4/17/2019	6.4	72.5	VH	324	VH	3.6
F 2	360	27.5	1		2	4/17/2019	6.5	68.8	VH	1326	MH	2.2
J 1	360	19.5	1		5	12/22/2021	6.7	219.3	VH	3856	VH	2.8
J 2	360	22.5	1		5	12/22/2021	6.7	276.3	VH	3736	VH	3.5
K 1	360	41.4	1		2	4/17/2019	5.2	2	L	151	H	3
ST 4	360M	34.9	1	Stewart	11	6/3/2020	5.9	28.9	H	1998	VH	3.3

202.2

Corn from Sod

A 2	360M	8.7	1		6	6/3/2020	6.5	137	VH	2329	VH	3.8
A 3	360	7.6	1		6	2/4/2020	6.5	77.3	VH	2375	VH	2.6
B 8	360	4.9	1	Estes	9	2/4/2020	6.2	46.6	VH	2329	VH	2.7
B 14	360	4.9	1	Estes	9	2/4/2020	6.1	45.4	VH	277	VH	2.8
B 15	360	8.1	1	Estes	9	2/4/2020	6.2	48.4	VH	2899	VH	2.3
B 16	360	5.3	1	Estes	9	12/7/2020	7	223.9	VH	1124	MH	3.1
C 3	360M	25.7	1		7	2/18/2020	6.6	121	VH	163	H	2.4
C 9	360M	30.1	1		7	2/4/2020	6.2	54	VH	1906	H	2.3
D 2	360M	44.8	1		6	6/3/2020	6.5	92.1	VH	208	VH	
E 4	360	11.5	1	Dudley	2	2/4/2020	6	2.8	L	1942	H	3.6
H 4	360M	12	1	Polmiter	1	12/22/2021	6.4	93	VH	1087	M	3
H 6		48.5	1	Nash Road	2							
H 7		16.6	1	Nash Road	2							
H 8		18.5	1	Nash Road	2							
J 3	360M	15.9	1		5	12/22/2021	6.6	194.7	VH	2826	VH	2.6
M 6	360M	10.8	1		5	12/22/2021	6.1	430.3	VH	4334	VH	3
Q 1	360	12	1		7	12/7/2020	6.7	63.8	VH	1308	MH	3.4
Q 3	360	11.6	1		7	2/4/2020	6.5	72.3	VH	599	L	2.1
ST 3	360M	25.2	1	Stewart	11	6/3/2020	5.8	12.8	M	765	L	2.9
X 22		31.6	1		8	12/30/2021	5.9	2	L	765	LM	3

354.3

Corn Grain

A 4	360	5.1	1		6	2/4/2020	6.2	78.5	VH	3442	VH	2.2
A 9	360	12.1	1		6	4/17/2019	5.7	26.4	H	3534	VH	2.9
A 10		4.1	1		6	4/17/2019	5.7	26.7	H	3056	VH	2.8

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
A 12S	360M	19.7	1		6	2/4/2020	6.1	59.7	VH	167.6	H	2.8
Buckley		8	1		7	2/4/2020	5.7	8.9	M	246.7	VH	2.9
C 8	360	7.7	1		7	4/17/2019	6.6	44.6	VH	272.4	VH	2.5
C 11	360	4.8	1		7	2/4/2020	6.2	16.8	MH	96.7	LM	2.3
C 13	360	6.8	1		7	2/4/2020	6.2	23.1	H	147.3	H	2.4
Conrad		20.6	2	E Union Road	2							
E 5	360	5.4	1	Dudley	2	4/17/2019	6.4	29.8	H	130.8	MH	2.8
E 6	360M	14.3	1	Dudley	2	6/3/2020	6.3	13.1	MH	76.5	L	2.8
EV 2		20.5	3	Eagle Valley Road	12	2/4/2020	6.2	18.1	MH	283.5	VH	5.6
EV 3		30.2	3	Eagle Valley Road	12	2/4/2020	6	19.3	MH	282.6	VH	1.8
F 1	360M	11.4	1		1	6/3/2020	5.9	27.4	H	94	LM	2.6
F 10A	360	17.2	1		4	12/2/2020	7.3	312.4	VH	69.1	L	3.8
F 14		6.8	1		4	2/18/2020	6.2	59.6	VH	40.6	VL	2.9
F 19	360	12.1	1		4	2/4/2020	6.9	136.7	VH	37.8	VL	2.8
F 21	360	43.7	2		4	4/17/2019	6.9	153.1	VH	121.6	MH	2.7
G 3	360	28	1		1	12/2/2020	6.6	61.2	VH	64.5	L	2.8
Glosick 10A		8	1	Glosick	2	12/22/2021	5.6	2	L	171.2	H	2.8
Glosick 10B		15.7	1	Glosick	2	12/22/2021	5.4	2	L	172.2	H	2.8
Glosick 11		10.8	2	Glosick	2	12/22/2021	5.7	2	L	385.6	VH	4
Glosick 12		4.1	1	Glosick	2	12/22/2021	5.2	2	L	280.7	VH	3.8
Glosick 13		3.1	1	Glosick	2	12/22/2021	5.3	2	L	262.3	VH	4.1
H 2B	360	6.1	1	Polmiteer	1	12/22/2021	6.8	220.5	VH	407.7	VH	3.3
H 2C	360	15.4	1	Polmiteer	1	12/22/2021	6.8	225	VH	306.5	VH	2.2
H 3	360	52.1	1	Polmiteer	1	12/22/2021	5.8	96.8	VH	364.4	VH	3.2
H 3S	360	8.9	1	Polmiteer	1	12/22/2021	6	60.7	VH	122.5	MH	2.5
J 4	360	15.4	1		5	12/22/2021	6	204.6	VH	360.8	VH	3.8
L 1	360	16.2	1		2	4/17/2019	6.4	13.6	MH	87.5	LM	3.4
L 2	360	24.8	1		2	4/17/2019	6.3	6.6	M	47	L	3.6
M 1	360	5.8	1		5	12/22/2021	6.8	208.8	VH	510.7	VH	2.8
Q 12	360	8.8	4		8	12/7/2020	6.3	33.2	H	47	L	2.8
Q 13	360	12.7	5		8	4/18/2022	6.7	99.3	VH	149.2	H	3.1
R 1	360	5.9	2		7	4/18/2022	6.5	40.8	VH	85.7	LM	3.2
R 2	360	6	2		7	4/18/2022	6.2	6.6	M	69.1	L	2.4
R 3	360	8.2	2		8	12/8/2020	6.6	19.3	MH	140	MH	2.6
R 6E	360	12.3	2		8	12/8/2020	6.4	7.8	M	74.6	L	2.3

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
R 6W	360	15.8	2		8	12/8/2020	6.5	9.1	M	98.6	LM	3.1
R 10	360	15.2	2		8	4/18/2022	6.4	56.9	VH	189.6	H	
R 12A	360	7.2	2		8	12/8/2020	5.8	2	L	99.5	LM	2.5
R 12B	360	10.3	2		8	12/8/2020	6	3.7	L	76.5	L	2.3
S 1		6.6	1		5	12/22/2021	6.2	3.7	L	155.6	H	2.5
S 5		10.7	1		5	12/22/2021	5.6	2	L	305.6	VH	3.6
SH 1		27.4	1	Bowblis	11	2/18/2020	6.6	98.5	VH	321.2	VH	3.6
ST 5	360	27.5	4	Stewart	11	12/30/2021	6	34.6	H	356.2	VH	3.1
ST 6	360	21.4	4	Stewart	11	12/30/2021	6.1	20.1	H	224.6	VH	3.3
ST 7	360	8.4	4	Stewart	11	12/30/2021	6.1	12.1	M	124.3	MH	2.4
ST 8	360	13.9	4	Stewart	11	12/7/2020	6	22.3	H	135.4	MH	3.6
ST 11	360	25.5	2	Stewart	11	12/7/2020	5.8	11	M	217.2	VH	3.6
ST 13	360	3.4	2	Stewart	11	12/30/2021	5.7	4.3	L	132.6	MH	2.8
ST 16	360	14.7	2	Stewart	11	12/7/2020	5.8	8.8	M	201.6	VH	3.1
ST 18	360	12.8	2	Stewart	11	12/7/2020	5.9	11.8	M	142.7	H	3.7
ST 20	360	5.5	2	Stewart	11	12/7/2020	5.8	13.8	MH	121.6	MH	2.5
ST 21S		24	2	Giles	11	12/7/2020	5.8	6.4	M	265.1	VH	4.1
Sugar 1		2.3	5		2	12/7/2020	5.8	11.3	M	117	MH	4.1
Sugar 2		13.2	5		2	12/7/2020	5.3	2	L	67.3	L	2.9
Sugar 3		20.5	5		2	12/7/2020	5	2	L	58.1	L	2.7
V 1		5.3	1		5	12/22/2021	5.8	2	L	246.7	VH	3.7
V 2	360	11.3	1		5	12/22/2021	6	303.3	VH	610.1	VH	3.3
V 3	360	8.3	1		5	12/22/2021	6.4	138.3	VH	442.6	VH	2.8
W 1	360M	26.4	2		6	6/3/2020	6.1	158.2	VH	351.6	VH	4
W 4B	360	18.8	2		6	12/2/2020	7.2	282.3	VH	600.9	VH	3.4
W 6	360	25	1		6	4/17/2019	6.2	72.4	VH	328.6	VH	3.3
W 8	360	10.8	1		6	4/17/2019	6.1	2	L	51.6	L	2.3
W 9	360M	40.3	2		6	6/3/2020	6.5	84.3	VH	149.2	H	2.7

951.3

Grass

C 12	360	3.7	14		7	2/4/2020	6.2	7	M	78.3	L	3.6
Q 14	360	14.9	14		7	2/4/2020	6.4	23.7	H	101.3	M	
U 3		9.5	11		7	4/18/2022	5.9	3.3	L	78.3	L	3.1

28.1

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
-----------	------------	-------	----	------	-----	------------	----	---	--------	---	--------	----

Idle

B 13	360	4.4		Estes	9	4/10/2013	6.9	101.6	VH	765.6	VH	3.3
EV 1N		29.5	3	Eagle Valley Road	12	12/23/2016	6.6	29.7	H	340.5	VH	3.1
EV 1S			3	Eagle Valley Road	14	4/9/2014	6.3	18.5	MH	126.2	MH	3.3
ST 9	360	4.5		Stewart	11							
ST 12	360	4.3		Stewart	11	4/10/2013	6.1	8.5	M	199.8	H	3.6
ST 14	360	1.2		Stewart	11	4/10/2013	5.6	4.5	L	244.8	VH	3.5
ST 15	360	5.1		Stewart	11	4/10/2013	6	6.9	M	282.6	VH	4.5
ST 17	360	0.6	2	Stewart	11	11/29/2017	5.8	8.6	M	206.2	VH	2.3
ST 19	360	0.5	2	Stewart	11	4/10/2013	6.4	12.9	M	231	VH	3.7

50.1

Soy Beans

A 1	360M	28.7	1		6	2/4/2020	6.3	71.3	VH	215.4	VH	3.3
A 7	360M	15.8	1		6	2/4/2020	6.2	72.3	VH	337.8	VH	3.1
A 8	360	2.6	1		6	4/17/2019	5.3	30.9	H	187.8	H	3.5
B 1	360	6.7	1	Estes	7	4/17/2019	5.9	12.1	M	55.3	L	1.7
B 2	360	13.4	1	Estes	7	12/8/2020	6.9	91.1	VH	249.4	VH	3.1
B 3	360	9.3	1	Estes	7	4/17/2019	5.5	2	L	36	VL	2.8
B 4	360M	17.2	1	Estes	7	6/3/2020	6.2	67.9	VH	122.5	MH	3.1
B 5	360	9.6	1	Estes	7	2/4/2020	6	16.6	MH	117.9	M	2.1
B 6	360M	25.4	1	Estes	9	2/4/2020	6.4	109.9	VH	483.1	VH	4.1
B 10	360M	25.8	1	Estes	7	2/4/2020	5.8	45.3	VH	151.9	H	3.1
B 11	360	5.6	1	Estes	7	2/4/2020	5.8	42	VH	158.4	H	2.8
B 12	360	7.6	1	Estes	9	2/4/2020	6.2	50.8	VH	265.1	VH	2.5
B 17	360	12.1	1	Estes	9	12/7/2020	7.1	145.5	VH	249.4	VH	3.1
C 1	360M	12.2	1		7	6/3/2020	7	141.9	VH	71.9	L	2.8
C 2	360	2.8	1		7	2/4/2020	7	192.7	VH	128.9	MH	3.3
C 4	360	6.6	1		7	2/18/2020	6.6	96	VH	163	H	2.5
C 6	360	7.6	1		7	2/4/2020	6.4	62.6	VH	117	M	2.8
C 7	360	5.5	1		7	2/4/2020	6.2	51.7	VH	197	H	2.6
C 14		2.7	1		7	2/4/2020	6.2	21.8	H	137.2	MH	2.8
D 1	360	29.2	1		6	12/2/2020	6.4	79.6	VH	407.7	VH	6.2
F 4	360	13	1		4	4/17/2019	7.1	171.8	VH	137.2	H	3.1
F 5	360	1.6	1		4	12/2/2020	6.5	34.3	H	126.2	H	2

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
F 6	360	5.4	1		4	12/2/2020	7	129.9	VH	117	MH	8.3
F 7	360	8.3	1		4	12/2/2020	7.2	216.8	VH	107.8	MH	2.8
F 8	360	8.7	1		4	12/2/2020	7.1	105.1	VH	128	MH	2.8
F 9	360	6.7	1		4	12/2/2020	6.8	106.5	VH	107.8	M	2.5
F 10B	360	15.6	1		4	2/18/2020	7.2	477.1	VH	92.1	M	3.8
F 11	360M	19.6	1		4	6/3/2020	6.3	177.3	VH	31.4	VL	3.4
F 15	360M	18.9	1		4	2/4/2020	6.5	152.5	VH	132.6	MH	3.2
F 20	360	21.4	1		4	2/4/2020	7	162.9	VH	40.6	VL	3.4
Glosick 1		21.3	1	Glosick	6	12/22/2021	6.2	269.3	VH	214.5	VH	3.8
Glosick 2		6.9	1	Glosick	6	12/22/2021	5.8	366.5	VH	358	VH	3.3
K 2		14	1		2	4/17/2019	5.2	2	L	137.2	MH	2.4
M 2	360	10.2	1		5	12/22/2021	6.8	546	VH	237.5	VH	3.5
M 3	360	12.5	1		5	12/22/2021	6.5	715.1	VH	356.2	VH	3
M 5	360	20.8	1		5	12/22/2021	6.6	304.7	VH	249.4	VH	2.3
N 1	360	22.2	1	Makitra	5	12/22/2021	5.5	671.9	VH	531	VH	3.3
O 1	360	17.6	1		5	12/22/2021	5.5	546	VH	469.3	VH	3.8
O 2	360	12	1		5	12/22/2021	6.2	616.8	VH	878.7	VH	3.7
P 1A	360M	25.8	1		5	2/4/2020	6	62.9	VH	297.3	VH	3.9
P 1B	360	17.5	1		5	2/4/2020	7.1	50.2	VH	260.5	VH	2.1
Q 2	360	21.6	1		7	2/4/2020	6.6	95.8	VH	78.3	LM	2.5
Q 4	360M	14.6	1		7	2/18/2020	6.4	87.7	VH	67.3	L	2.5
Q 5	360	19.3	1		7	2/4/2020	7.1	282.3	VH	166.6	H	2.3
Q 7	360	8.5	1		7	4/18/2022	6.5	39.4	H	344.2	VH	3.1
Q 8	360	8.5	1		7	2/4/2020	6.4	49.4	VH	85.7	LM	3.3
Q 9	360	7.7	1		7	4/18/2022	6.6	43.2	VH	306.5	VH	3.3
Q 10	360	9.6	1		7	4/18/2022	6.5	40.9	VH	244.8	VH	3.1
Q 11	360M	15.6	1		7	6/3/2020	6.3	62.5	VH	217.2	VH	2.8
R 9	360	6.8	1		8	4/18/2022	6.6	48.4	VH	115.1	M	2.8
R 11	360	32.9	1		8	4/18/2022	6.5	47.9	VH	288.1	VH	3.5
S 2		8.4	1		5	12/22/2021	6.1	2	L	269.7	VH	2.4
S 7		6.8	1		5	12/22/2021	6	115	VH	135.4	MH	3.3
Spears 1		11.3	1		7	4/18/2022	6.6	27.7	H	186	H	3.9
Spears 2		7.7	1		7	4/18/2022	6.2	18	MH	103.2	M	3.5
Spears 3		9.3	1		7	4/18/2022	6.4	19.9	MH	149.2	H	3.6
Spears 5		4.6	1		7	4/18/2022	5.6	2	L	119.7	M	2.8

FieldName	FieldSplit	Acres	Yr	Name	Map	SampleDate	pH	P	Plevel	K	KLevel	OM
Spears 6		18.4	1		7	4/18/2022	5	2	L	144.6	H	3.5
Spears 7		13.3	1		7	4/18/2022	6.2	51.2	VH	378.2	VH	4.1
ST 1	360M	24.6	1	Stewart	11	6/3/2020	5.6	15	MH	108.7	M	3
Tucker 1		11.1	1	Tucker	10	12/7/2020	6.1	7	M	169.4	H	4.1
Tucker 2		6.1	1	Tucker	10	12/7/2020	6.1	15.9	MH	163	H	5.1
Tucker 3		9.8	1	Tucker	10	12/7/2020	6.1	2.8	L	81.1	LM	3.1
Tucker 4		11.2	1	Tucker	10	12/7/2020	6.3	7.8	M	99.5	M	3.2
Tucker 5		10.1	1	Tucker	10	12/7/2020	6.4	12.3	M	146.4	H	4.1
Tucker 6		5.7	1	Tucker	10	12/7/2020	5.8	7.6	M	98.6	LM	4.1
U 1	360	16	1		7	4/18/2022	6.7	71	VH	171.2	H	2.4
U 4		21	1	Lee	7	2/4/2020	6.3	55.2	VH	197	H	2
VA 1		7.1	1		3	12/2/2020	5.3	9.2	M	128.9	MH	2.9
W 4A	360	20.4	1		6	12/2/2020	6.8	146.7	VH	519	VH	3.3
Y 1		6.4	1	Lehman	3	12/2/2020	4.9	2	L	56.2	L	2.2
Y 2		14.4	1	Lehman	3	12/2/2020	4.9	2	L	37.8	VL	2.8
Y 3		3.3	1	Lehman	3	12/2/2020	5.1	2	L	48.9	VL	2.1
Z 1A		50.3	1	Savona Hill	10	2/4/2020	6.4	5.7	LM	156.5	H	2.3
Z 1B			1	Savona Hill	12	2/4/2020	6.6	8	M	141.8		1.7

988.8

2977

Certification Statement

SECTION 12 - CERTIFICATION

The Owner or Operator must sign, date and submit one completed form with an original signature to the appropriate Regional Office (See attachment for Regional Office addresses and Contacts.)

The Owner or Operator must also submit one copy by email, fax or mail to:

**New York State Department of Environmental Conservation
Bureau of Waste Reduction and Recycling – Annual Report
625 Broadway – 9th Floor
Albany, New York 12233-7253**

Phone: 518-402-8706

Fax 518-402-9024

Email address: organicrecycling@dec.ny.gov

Permit prior to November 2017:

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits was prepared by me or under my supervision and direction and is true to the best of my knowledge and belief, and that I have the authority to sign this report form pursuant to 6 NYCRR Part 360. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Permit post November 2017:

I certify, under penalty of law, that the information that will be used to determine compliance with the requirements in Subpart 361-2 of 6 NYCRR Part 361 has been prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that false statement made herein are punishable pursuant to section 210.45 of the penal law.

Philip M Dickson
Signature

5/31/2022
Date

Phil Dickson
Name (Print)

President
Title (Print)

mary@dicksonenvironmental.com
Email (Print)

5226 Bonny Hill Road
Address

Bath
City

NY, 14810
State and Zip

(607) 776-7997
Phone Number

ATTACHMENTS: NO YES (IF YES, LIST ATTACHMENTS)

- Soil Analysis
- Land Application Data
- Crop Data and Projections

New York State Department of Environmental Conservation
Division of Materials Management
Bureau of Waste Reduction and Recycling

MATERIAL MANAGEMENT PROGRAM CONTACTS

CENTRAL OFFICE

Bureau of Waste Reduction and Recycling
625 Broadway
Albany, NY 12233-7253
Phone: (518) 402-8706

For Submission of Organics Recycling Annual Reports only:

Fax: (518) 402-9024

Email: organicrecycling@dec.ny.gov

REGIONAL OFFICE ADDRESS & LEAD CONTACT PERSON

REGION 1 (Nassau, Suffolk)

Syed Rahman/David Gibb
SUNY @ Stony Brook
50 Circle Road
Stony Brook, NY 11790
Phone: (631) 444-0375
SWMFannualreportR1@dec.ny.gov

REGION 2 (Bronx, Kings, New York, Queens, Richmond)

Joseph O'Connell
47-40 21st Street
Long Island City, NY 11101-5407
Phone: (718) 482-4892
SWMFannualreportR2@dec.ny.gov

REGION 3 (Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester)

Lee Reiff
21 South Putt Corners Road
New Paltz, NY 12561
Phone: (845) 256-3134
SWMFannualreportR3@dec.ny.gov

REGION 4 (Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie)

Brian Maglienti
1130 North Westcott Road
Schenectady, NY 12306
Phone: (518) 357-2085
SWMFannualreportR4@dec.ny.gov

REGION 5 (Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington)

Jessie Sangster
1115 State Route 86, PO Box 296
Ray Brook, NY 12977
Phone: (518) 897-1266
SWMFannualreportR5@dec.ny.gov

REGION 6 (Herkimer, Jefferson, Lewis, Oneida, St. Lawrence)

Gary McCullouch
317 Washington Street
Watertown, NY 13601
Phone: (315) 785-2513
SWMFannualreportR6@dec.ny.gov

REGION 7 (Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins)

Steve Perrigo
615 Erie Boulevard West
Syracuse, NY 13204
Phone: (315) 426-7419
SWMFannualreportR7@dec.ny.gov

REGION 8 (Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates)

Greg MacLean
6274 East Avon-Lima Road
Avon, NY 14414
Phone: (585) 226-5411
SWMFannualreportR8@dec.ny.gov

REGION 9 (Allegany, Cattaraugus, Chautauqua, Erie, Niagara, Wyoming)

Peter Grasso
270 Michigan Avenue
Buffalo, NY 14203
Phone: (716) 851-7220
SWMFannualreportR9@dec.ny.gov

November 2021

Permit

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 8
6274 East Avon-Llma Road, Avon, NY 14414-9516
P: (585) 226-5400 | F: (585) 226-2830
www.dec.ny.gov

October 1, 2019

Leo Dickson and Sons
Attn: Phil Dickson
5226 Bonny Hill Rd
Bath, NY 14810-8145

Re: Permit Renewal
DEC ID# 8-4699-00012/00001
Leo Dickson & Sons Landspreading Sites and Farm
Permit to Operate a Solid Waste Management Facility

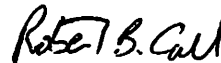
Dear Mr. Dickson:

The permit renewal you requested is enclosed. Please read it carefully and note the conditions that are included in it. The permit is valid for only those activities expressly authorized therein, which involves the storage of liquid biosolids and food processing waste, and land application of food processing waste and stabilized biosolids on agricultural fields. Work beyond the scope of the permit and the approved project plans may be considered a violation of the law and be subject to appropriate enforcement action. Granting of this permit does not relieve the permittee of the responsibility of obtaining any other permission, consent, or approval from any other Federal, State or local government which may be required.

Be advised, the Uniform Procedures Regulations (6 NYCRR Part 621) provide that an applicant may request a public hearing if a permit is denied or contains conditions which are unacceptable to them. Any such request must be made in writing within 30 calendar days of the date of permit issuance and must be addressed to the Regional Permit Administrator at the letterhead address. A copy should also be sent to the Chief Administrative Law Judge at NYSDEC, 625 Broadway, 1st.Floor, Albany, NY 12233-1550.

No authority is granted by this Permit to operate, construct, or maintain any installation in violation of any law, statute, code, ordinance, rule, or regulation of the State of New York or any of its political subdivisions. If you have any questions on the extent of the work authorized or your obligations under the permit, please feel free to contact me at 585-226-5396.

Sincerely,



Robert B. Call
Environmental Analyst

ec: M. Osypian, NYSDEC DMM R8
G. Maclean, NYSDEC DMM R8
T. Haley, NYSDEC DEP R8
D. Loew, NYSDEC OGC R8
Town of Thurston



Department of
Environmental
Conservation



PERMIT
Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
LEO DICKSON & SONS, INC.

5226 BONNY HILL RD

BATH, NY 14810-8145

Facility:
LEO DICKSON & SONS LANDSPREADING
SITES AND FARM
5226 BONNY HILL RD AND MULTIPLE
TOWNSHIPS
BATH/CAMERON/THURSTON, NY

Facility Location: In MULTIPLE TOWNS in STEUBEN COUNTY

Facility Principal Reference Point: NYTM-E: 307.91 NYTM-N: 4680.809
Latitude: 42°15'21.1" Longitude: 77°19'43.4"

Authorized Activity: Storage of liquid biosolids and food processing waste, and land application of food processing waste and stabilized biosolids on agricultural fields, in accordance with the conditions of this permit. Approved waste sources, application sites and storage facilities are listed in Attachment A, Attachment B (B-1, B-2, and B-3), and Attachment C of this permit.

Permit Authorizations

Solid Waste Management - Under Article 27, Title 7

Permit ID 8-4699-00012/00001

(Solid Waste ID 51L05)

Renewal

Effective Date: 10/1/2019

Expiration Date: 9/30/2024

NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: KIMBERLY A MERCHANT, Deputy Regional Permit Administrator
Address: NYSDEC Region 8 Headquarters
6274 E Avon-Lima Rd
Avon, NY 14414

Authorized Signature: Kimberly A. Merchant **Date** 10/1/2019



Permit Components

SOLID WASTE MANAGEMENT PERMIT CONDITIONS

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

SOLID WASTE MANAGEMENT PERMIT CONDITIONS

1) Conformance With Plans All activities authorized by this permit must be in strict conformance with the permit application, plans and materials prepared by LaBella Associates P.C. and Agricultural Engineering Services, PLLC (AES), Western New York Crop Management, and Dickson Environmental on various dates (see conditions #26 for detailed list and descriptions of these documents).

I) GENERAL APPLICABILITY

2) Authorization - This permit authorizes the storage, staging, and land application, of stabilized biosolids and food processing wastes. Specifically, waste from the sources listed in Attachment A of this permit, may be land applied only to those fields list in Attachment B, pursuant to engineering plans referenced in condition #1 above; and stabilized biosolids and food processing wastes may be stored in the facilities listed in Attachment C; and temporary staging of dewatered solids is allowed and must be done in such a manner as to conform with the requirements listed in condition #20 of this permit.

The Permittee must comply with all conditions of this permit, and 6NYCRR Parts 360 and 361 (excerpts included as Attachment F). Note this facility is a concentrated animal feeding operation (CAFO); as such, the land application, or manure derived waste is regulated by the current SPDES (State Pollutant Discharge Elimination System) CAFO regulations and permits. Waste that is a combination of manure, agricultural process wastewater as defined by the CAFO Permit, food processing waste and/or biosolids is regulated by the most stringent regulation, ie., any Permit Condition of this permit, 6NYCRR Parts 360 and 361, or SPDES CAFO requirement. A summary of the waste streams and the applicable conditions appear in Attachment E.

3) Compliance with Other Requirements - This approval does not relieve the Permittee from complying with all other applicable Federal, State, or local ordinances and laws.



4) **Adverse Impact** - The Permittee shall take all steps to minimize or correct any adverse impact on human health or the environment resulting from facility operations. The Permittee shall report any such activity which may endanger human health or the environment to the DEC Region 8 Spill Engineer. Such activities include, but are not limited to uncontrolled releases of waste, leachate, or petroleum products from storage tanks, pipes, containers, vehicles and portable tanks to the soil, groundwater, or surface water. Any such information shall be reported, verbally within two (2) hours from the time the Permittee becomes aware of the circumstances and followed up in writing within seven days. Telephone numbers available for reporting such activities are as follows:

REGULAR BUSINESS HOURS - 585-226-5436

TOLL FREE HOTLINE (24 hours/day) - 1-800-457-7362

5) **Operation Controls** - This permitted facility shall be operated to control vectors and odors. (The facility Odor Control Plans appears in section one of the Dickson Environmental Services, Inc. Operations and Maintenance narrative dated February 2018).

6) **Non-compliance** - In the event a Department representative makes a determination that the Permittee is in non-compliance with any provision of the Environmental Conservation Law, or with any regulation promulgated thereunder or any provision of this permit or of any judicial or administrative order applicable to the facility and enforceable under the Environmental Conservation Law, the Permittee must, upon receipt of written or oral Notice of Noncompliance from the Department, promptly take such steps as are necessary to correct, abate, or remediate the non-complying condition. To the extent feasible, the Permittee must consult the Department regarding the selection and implementation of such measures. Any instance of non-compliance, together with the responsive measures and results of such measures, must be recorded in writing by the Permittee, and submitted to the Department within 48 hours of the non-compliance.

7) **Endangered Species** - Land application must not adversely affect a threatened or endangered species or its designated critical habitat.

8) **Complaint Handling** - All complaints received/at the facility, or forwarded to the facility by Department staff, must be responded to by the end of the working day on the day the complaint is received by the facility. All actions taken by the Permittee to remedy the issue must be documented and provided in writing to regional DEC staff within 48 hours. Correspondence should be addressed to the attention of Greg MacLean, 585-226-2909 (fax) or by email to greg.maclea@dec.ny.gov.

9) **Amendments/Modifications** - Amendments or modifications to the engineering report, plans, specifications, or correspondence listed in Condition #1 and Condition #26, must be approved in writing by the Department prior to their implementation.

10) **DEC Addresses** - All submissions required by this permit shall be submitted in a timely manner to the Regional Materials Management Engineer, NYSDEC, 6274 East Avon-Lima Road, Avon, NY 14414 and Bureau of Waste Reduction and Recycling, NYSDEC, 625 Broadway, NY 12233.



11) **Notification of Conditions Subject to Change** - These permit conditions shall be subject to change in the event that they become inconsistent with future modifications of the rules and regulations of the New York State Department of Environmental Conservation.

II) LAND APPLICATION OPERATIONAL REQUIREMENTS

12) Weather Restrictions

a) Land application is prohibited on water saturated ground or during heavy rainfall. Storage and/or disposal facilities must be available for periods during the year when waste cannot be applied.

b) LAND APPLICATION OF WASTE ON SNOW COVERED OR FROZEN GROUND

(i) Liquid Biosolids

Land application of liquid biosolids is prohibited on snow-covered or frozen ground, except by direct injection on those fields listed in Attachment B-3. Sufficient storage and/or disposal alternatives must be available for those periods when direct injection cannot be accomplished. See attachment D for direct injection performance criteria.

(ii) Dewatered Biosolids

Land application of dewatered biosolids is prohibited on snow-covered or frozen ground. For those periods when the waste cannot be incorporated sufficient reserve composting capacity and/or disposal alternatives must be available.

(iii) Non-Recognizable Dewatered Food Processing Waste

Land application of non-recognizable dewatered food processing waste on frozen or snow-covered ground is limited to the fields listed in Attachment B-3. The surface of the field on which waste has been applied must be perforated using a tractor pulled aerator attachment by the end of the working day on which the waste is applied. Perforation of the soil is not required if the field was plowed prior to the ground freezing and the surface is furrowed at the time the waste is applied.

(iv) Liquid Food Processing Waste, and Liquid from Storage Ponds #2, #3, and #4. Land application is prohibited on snow-covered or frozen ground, except by direct injection on those fields listed in Attachment B-3. Sufficient storage and/or disposal alternatives must be available for those periods when direct injection cannot be accomplished. See attachment D for direct injection performance criteria.

(v) Land application containing manure and/or other agricultural process wastewater must be done in accordance with the 2015 Cornell Guide "Revised Winter and Wet Weather Manure Spreading Guidelines To Reduce Water Contamination Risk", as well as NRCS NY590.



13) Waste Incorporation

- a) Recognizable vegetative food waste, and non-recognizable dewatered food processing waste, or any combination of the two that is land applied must be incorporated into the soil within 24 hours of land application. See Condition 12 for restrictions when spreading on frozen or snow covered ground.
- b) All Liquid waste including biosolids, nonrecognizable food processing waste, and manure containing biosolids or food processing waste, must be land applied by direct injection, except that this requirement does not apply to liquid from the irrigation pond applied using the hard piped irrigation system. See Attachment D for direct injection performance criteria.
- c) Dewatered Biosolids must be incorporated into the soil within 6 hours after land application.

14) **Nutrient Uptake** - A crop must be grown each calendar year on all waste amended fields to promote nutrient uptake. The application rate of the waste and all other fertilizers and /or manure must be tracked to ensure the total nutrient loading limits are not exceeded.

15) **Soil Conservation/Agricultural Management** - Proper soil conservation practices and agricultural management practices must be used to minimize runoff and soil loss through erosion. No runoff may occur to surface water bodies or wetlands. The vegetative filter strips, referenced on page 1 of "Leo Dickson and Son's Field Spreading Maps" date January 2012. These strips must be maintained as grassy areas throughout the life of the permit.

16) **Dikes/Berms** - The Department may require the use of dikes, berms, or other pollution protection devices or techniques on a case specific basis.

17) **Flood Plain** - Land application in a 100-year flood plain must not result in washout of the solid waste applied. Land application is prohibited in flood plain areas designated as a floodway pursuant to 6NYCRR Part 502.

18) **Water Contravention** - Land application rates and practices must not cause contravention of groundwater and surface water standards provided in 6NYCRR Parts 700-705.



III) WASTE STORAGE

19) Liquid Storage

- a) Biological and physical treatment methods must be utilized in uncovered liquid storage ponds to control odors.
- b) Liquid storage facilities that contain only manure are regulated by the SPDES CAFO requirements.
- c) The concrete storage tank located at the heifer barn on Helmer Creek Road shall be completely emptied, cleaned, and inspected by a NYS licensed professional engineer annually. Region 8 DMM staff shall be notified a minimum of two weeks prior to the inspection. Any damage or deterioration revealed during the inspection shall be repaired before the tank receives any additional waste. Any repair work shall be noted in the annual report. Note, this tank is regulated by 6NYCRR Part 361-2.7.
- d) All waste storage facilities that are permitted to contain 6NYCRR Part 360 and CAFO regulated waste must have an accurately installed certified depth marker. If the marker is displaced, the facility must notify the Department in writing within seven (7) days. The depth markers must be corrected and recertified within ninety (90) days.

20) Solids Storage

- a) Overnight storage and treatment of waste solids shall occur only in areas covered by a roof or tarp.
- b) Temporary staging of dewatered food processing waste solids at satellite staging locations, such as the Windfall Road reload station, may not exceed 24 hours.
- c) De-watered biosolids shall not be stored overnight at the temporary satellite staging locations referenced in condition #20b above ("satellite staging locations" or "staging areas"). Biosolids must be removed from satellite staging locations, such as the Windfall Road bunker, at the end of each working day.
- d) Lime or other acceptable additives must be used as needed to reduce odors.
- e) Efforts must be taken to reduce the entry of stormwater into waste at staging locations including the grading of adjacent land to direct stormwater away from the waste. No leachate generated by water entering the waste shall be released from the staging area. Any leachate generated must be collected and land applied or disposed in a manner acceptable to the Department.



IV) SAMPLING REQUIREMENTS

21) Waste Sampling

- a.) Liquids in storage ponds #2, #3, and #4 (the irrigation pond) must be sampled and analyzed per 6NYCRR Parts 360 and 361.
- b.) Liquid and dewatered non-recognizable food processing waste streams from those sources listed in Attachment A must be sampled and tested annually for the 6NYCRR 361-3.9 Table 1 parameters.

22) Soil Sampling

- a.) Soil monitoring shall be conducted as prescribed in 6NYCRR Parts 360 and 361. The sampling locations shall be recorded and shall be submitted with the results of the soil analyses in the Annual Report described below. Sampling must be coordinated to ensure that each permitted field listed in attachment B, that has received regulated waste, is sampled no less than once every three years. Fields that have not received regulated waste for three years or more do not require sampling. Note that the CAFO permit has additional sampling requirements for any field accepting manure and/or other agricultural process wastewater.
- b) Within six (6) months of the effective date of this permit, the permittee must complete baseline soil samples and submit a final report to the Department. The final report must include a summary of the data, maps with sampling locations, and original laboratory results. One sample for every fifty (50) acres of 6NYCRR Part 360 permitted fields must be collected. Every sample must consist of a composite of a minimum of ten (10) randomly selected sample locations at a sampling depth consistent with the depth of biosolids incorporation. Samples shall be analyzed for arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, and pH. Failure to submit a final report that is acceptable to the Department shall be a violation of this permit. This condition does not alter or eliminate the permittee's obligations under any other applicable statute, regulation, or permit condition.



V) REPORTING AND RECORDKEEPING

23) **Recordkeeping** All monitoring, recordkeeping, and reporting shall be in conformance with the requirements of 6NYCRR Part 361-2.5.

In addition, each week, a report documenting the previous week's land application activities must be prepared and sent electronically via e-mail to the NYSDEC Region 8 Division of Materials Management Engineer and designated Region 8 DMM staff at greg.maclean@dec.ny.gov, or at any future email addresses provided for the permittee's use by the Department. The report must be received by 4:45 pm on Monday of the following week of the activities described. If Monday is a legal holiday, the report must be received by 4:45 pm on Tuesday. Copies of the reports must be maintained at the facility office and must be available for review by Department staff upon request during normal business hours. The report must contain the following information for each day of the week.

- a) Weather conditions for all seven (7) days for the week being reported including, high and low temperature, precipitation type and amount, and wind direction and speed.
- b) The free board of all liquid waste storage structures containing the following material or any mixture of the following materials: manure, food processing waste, biosolids.
- c) A list of all biosolids, or food processing waste received, including waste type, source, amount, and the immediate destination for the material (for example, was it immediately land applied, taken to the compost building, or was it placed in a storage lagoon?)
- d) A list of all waste land-applied. The waste type, source, amount and field to which the waste was applied must be identified. The list must indicate how the waste was applied, and when it was incorporated into the soil.
- e) A list of any manure imported or exported, including the source, volume and destination of the manure.
- f) A copy of any analytical data received for biosolids or food processing waste received during the week.

24) **Annual Report** - The Permittee must submit an Annual Report each year shall be in conformance with the requirements of 6NYCRR Parts 360 and 361. The Annual Report should include list of the fields on which the vegetative filter strips, referenced in, condition #15, have been established.

25) **CAFO** - The facility's valid State Pollutant Discharge Elimination System (SPDES) Permit for Concentrated Animal Feeding Operations states the following: "The retention and disposal of food processing wastewater is authorized only if it is specified in the Comprehensive Nutrient Management Plan." Please be advised that your Certified Nutrient Management Planner must incorporate "worst case" sampling results for subsequent calculations of field application. This information shall be available upon Department request. Note that any fields receiving manure and other waste streams must fully comply with both 6 NYCRR Parts 360 & 361 and CAFO permit conditions. The facility planner must include cumulative nutrient loadings from all waste streams when calculating annual application recommendations. If you have questions regarding the CAFO component of this activity, please contact Nancy Rice at 585-226-5453.



26) Approved Documents. The following is a list of the documents referenced in Condition #1. All activities authorized by this permit must be conducted in strict conformance with these documents, the conditions of this Permit, and the applicable 6NYCRR Parts 360 and 361 Regulations. The Permit Conditions shall be subject to change in the event that they become inconsistent with future modifications of the rules and regulations of the New York State Department of Environmental Conservation. In the event inconsistencies appear in the submitted documents the most recent document, as determined by date of authorship, shall be considered controlling.

- a) "Operation and Maintenance Narrative" Prepared by Dickson's Environmental Services, Inc. Dated February 2018.
- b) "Leo Dickson and Son's Manure System Evaluation" Operation and Maintenance Procedures Earthen storage and Concrete storage sections. Prepared by Agricultural Engineering Services (AES) PLLC. Auburn, NY, dated January 2012, except that the minimum freeboard requirement for the uncovered earthen storage lagoon containing only manure (Pond # 1) is 1.0 foot plus a 25-yr, 24-hr storm event minimum freeboard (total freeboard required is approximately 16 in.). See condition # 19b.
- c) "Leo Dickson and Son's Heifer Facility's In-Ground Concrete Manure Storage Evaluation " Operation and Maintenance Procedures Section. Prepared by Agricultural Engineering Services (AES) PLLC. Auburn, NY. Dated January 2012.
- d) "Part 360 Permit Renewal Application, Prepared for Leo Dickson & Sons, Inc. Bath, New York"; Prepared by Labella Associates, P. C. Dated July 2008.
- e) "Part 360 Permit Modification Variance Request, Leo Dickson and Sons, Inc., Permit #LS105". Dated November 26, 2012, and reauthorized by NYSDEC Materials Management staff in April 2018.
- f) "Part 360 Permit Renewal Application, Leo Dickson & Sons, Inc. Bath, New York" Dated November 24, 2017. Including related documents once approved by the Department.
- g) "Solid Waste Management Renewal Application 2018" prepared by Leo Dickson and Sons, Inc. and Dickson Environmental Services, Inc. Dated January 2018. Including related documents attached to the application.
- h) "Leo Dickson & Sons Land Spreading Sites and Farm" prepared by Dickson Environmental and Western New York Crop Management dated August 27, 2019.



VI) ENVIRONMENTAL MONITOR

27) On-site Environmental Monitor

a) Leo Dickson & Sons, Inc. shall fund on-site environmental monitoring services to be performed by the Department. These monitoring services will include, but not be limited to, the following:

- i) Compliance monitoring;
- ii) Inspections and complaint response;
- iii) Pollution prevention assurance.

b) Funds necessary to support the monitoring services and requirements for the coming year shall be provided to the Department by Leo Dickson & Sons, Inc. on an annual basis. The sum to be provided is based on annual on-site environmental monitoring service costs of the Department for up to one quarter of a person-year of service, and is subject to annual revision. Subsequent annual payments shall be made for the duration of this Permit or until the monitoring requirements no longer exist, whichever comes first.

c) Leo Dickson & Sons, Inc. shall be billed annually for each fiscal year beginning on April 1. If this Permit is to first become effective subsequent to April 1, the initial payment may be for an amount sufficient to meet the anticipated cost of the monitoring services through the end of the current fiscal year.

d) The Department may revise the required payment on annual basis to include all of the Department's costs associated with the monitoring services. The annual revision may take into account such factors as inflation, salary increases, changes in operating hours and procedures, increase or decrease in the amount of monitoring necessary, and increase or decrease in the number of on-site environmental monitors and on-site environmental monitor supervision necessary. Upon written request by Leo Dickson & Sons, Inc. the Department shall provide Leo Dickson & Sons, Inc. with a written explanation of the basis for any revision or modification. If such a revision is required, the Department will notify Leo Dickson & Sons, Inc. of such a revision no later than 60 days in advance of such revision.

e) Prior to making its annual payment, Leo Dickson & Sons, Inc. will receive, and have an opportunity to review, an annual work plan that the Department will undertake during the year.

f) Payments are to be made in advance of the period in which they will be expended and shall be made in full within 30 days of receiving a bill from the Department. Payments shall be addressed to the address and contact person identified in the bill received from the Department.

g) Failure to make the required payments shall be a violation of this Permit. The State reserves all rights to take appropriate action to enforce the above payment provisions.



GENERAL CONDITIONS - Apply to ALL Authorized Permits:

1. Facility Inspection by The Department The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71- 0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

2. Relationship of this Permit to Other Department Orders and Determinations Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. Applications For Permit Renewals, Modifications or Transfers The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator
NYSDEC Region 8 Headquarters
6274 E Avon-Lima Rd
Avon, NY14414

4. Submission of Renewal Application The permittee must submit a renewal application at least 180 days before permit expiration for the following permit authorizations: Solid Waste Management.



5. Permit Modifications, Suspensions and Revocations by the Department The Department reserves the right to exercise all available authority to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

- a. materially false or inaccurate statements in the permit application or supporting papers;
- b. failure by the permittee to comply with any terms or conditions of the permit;
- c. exceeding the scope of the project as described in the permit application;
- d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. Permit Transfer Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.



NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

ATTACHMENT A

Approved Waste Sources

1) Stabilized biosolids generated from the following sources may be accepted for land application contingent on meeting the requirements of this permit.

- Addison, NY Village of: WWTP
- Bath, NY Village of: WWTP
- Canisteo, NY Village of: WWTP
- Castile NY Village of: WWTP
- Cayuga Heights NY Village of: WWTP
- Conesus Lake County Sewer District, NY WWTP
- Dryden, NY Village of: WWTP
- Knoxville, PA Borough of: WWTP
- Montour Falls, NY Village of: WWTP
- Nelson Township, PA: WWTP
- Alfred, NY Village of: WWTP
- Dansville, NY Village of: WWTP
- Dundee, NY Village of: WWTP
- Elkland Borough, PA: WWTP
- Lawrence Borough Authority, PA: WWTP
- Perry, NY Village of: WWTP
- Sabinsville, PA Village of: WWTP
- Trumansburg, NY Village of: WWTP
- Owego, NY Town of: WWTP
- Warsaw, NY Village of: WWTP
- Watkins Glen, NY Village of: WWTP
- Waverly, NY Village of: WWTP
- Wayland, NY Village of: WWTP
- Westfield, PA Borough of: WWTP
- Whitney Point, NY Town of WWTP
- Nunda, NY Village of: WWTP
- Portville, NY Village of: WWTP
- Hornell, NY City of: WWTP Backwash
Collection Lagoon Sludge

2) Food Processing Waste Generated at:

- LePrino Foods - Waverly, PA
- Dietrichs Foods (Dairy Farmers of America) - Middlebury Center, PA
- Upstate (formally Kraft Foods) - Campbell, NY
- Kraft Foods - Lowville, NY
- Kraft Foods - Avon, NY
- Quest - Kerry Bio Science in Norwich NY
- Rejected raw milk load - independent haulers loads rejected by Kraft in Campbell

ATTACHMENT B

PART 360 Permitted Fields - See spreadsheets

Reference the most recent annual report for an updated list of High P fields.

**Attachment B-1
Part 360 Permitted Fields**

Field Identification Number	Total Field Area	Spreadable Acres
A1	29.1	26
A2	8.3	7.3
A3	6.9	6
A4	5.2	0.2
A5N	16.1	13.9
A5S	10.1	7.7
A7	14.7	13
A8	3.6	3.6
A9	13.3	10.1
A11	38.6	28.4
A12 N	18.4	16.1
A12 S	11.8	9.3
B1	7.2	4.4
B2	14.3	14.3
B3	9.5	3.6
B4	17.6	11.4
B5	10.4	6.8
B6	25.6	21.9
B8	5.1	5.1
B9	34.6	33.9
B10	29	25.6
B11	5.7	5.7
B12	7.8	7.8
B13	4.4	4.4
B14	5.1	5.1
B15	8.7	8.7
B16	4.5	4.5
B17	12.4	12.4
C1	13.8	12.2
C2	2.8	1.9
C3	25.6	20.2
C4	6.4	0.7
C6	7.2	5.8
C7	6	5
C8	7.9	1.4
C9	28.9	26.8
C10A	5.6	5.6

**Attachment B-1
Part 360 Permitted Fields**

Field Identification Number	Total Field Area	Spreadable Acres
C11	5.3	5.3
C12	3.7	3.7
C13	7	7
D1	29.2	26
D2	45.5	40.9
E1	27	10.1
E3	19.5	16.9
E4	13.2	11.5
E5	6.1	5.4
E6	13	11.3
F1	11	5.7
F2	27.7	17.3
F3	12.6	10.6
F4	13.2	10.8
F5	2	2
F6	6.3	6.3
F7	8.6	8.6
F8	9.2	9.2
F9	9.1	9.1
F10A	17.7	17.7
F10B	15.6	15.6
F11	21.2	18.8
F12	21.4	21.4
F13	7.5	7.5
F15	18.9	16
F16	20.8	17.7
F17	10.5	8.7
F19	12.5	12.5
F20	22.2	19.3
F21	42.2	40.4
F23	23.5	20.9
G1	11.5	9.3
G2	5.2	3.2
G3	27.2	27.2
H1	20.6	20.6
H2A	6.7	4.5
H2B	6.7	6.7

**Attachment B-1
Part 360 Permitted Fields**

Field Identification Number	Total Field Area	Spreadable Acres
H2C	15.3	15.3
H3	53.8	40.2
H4	12.2	12.2
I1	17.3	12.1
J1	19.4	13
J2	22.4	22.4
J3	15.6	15.6
J4	14.8	12.8
K1	40.2	33.3
L1	17.1	4.7
L2	25.1	15.2
M1	5.5	5.5
M2	10	7.5
M3	10.3	10.3
M4	12.7	12.7
M5	21.4	21.4
N1	21.9	19.1
O1	17.6	16.8
O2	12	10
P1A	25.7	24.5
P1B	18.8	11.8
Q1	11.7	11.7
Q2	21.5	21.5
Q3	11.7	11.7
Q4	18.3	3.3
Q5	18.6	3.4
Q6	13.9	8.1
Q7	7.6	2.1
Q8	7.9	0
Q9	8.2	8.2
Q10	9.3	8
Q11	14.6	4.3
Q12	10.2	5.9
Q13	13.3	13.3
Q14	15.5	13.5
R1	5.8	2.6
R2	6	0.04

**Attachment B-1
Part 360 Permitted Fields**

Field Identification Number	Total Field Area	Spreadable Acres
R3	8.3	4
R4	15.6	7.2
R5-A	21.1	19.2
R6	29.4	14.2
R7	11.4	1.3
R8	8.9	1.2
R9	6.8	6.8
R10	14.7	14.7
R11	34.5	34.5
R12 A	11.4	10.3
R12 B	10.8	9.7
R13	9	6.9
R14	8.2	3.5
ST1	24.3	24.3
ST2	5.5	5.5
ST3	35.9	32.7
ST4	20.2	16.4
ST5	27.6	27.6
ST6	22.5	22.5
ST7	8.4	8.4
ST8	13.8	11
ST9	4.5	4.5
ST11	26.8	26.8
ST12	4.3	4.3
ST13	3.7	3.7
ST14	1.6	1.6
ST15	5.3	1.9
ST16	11.8	11.8
ST17	4	4
ST18	9.1	9.1
ST19	5.1	5.1
ST20	5.6	5.6
U1	16.4	16.4
U2	14.6	14.6
V1	5.5	3.7
V2	11.2	7.3
V3	8.5	6.9
W1	28.2	19.3
W4A	20.3	17.3

Attachment B-1
Part 360 Permitted Fields

Field Identification Number	Total Field Area	Spreadable Acres
W4B	20.8	20.5
W6	25.1	21.4
W8	11.7	9
W9	41.8	38.8
Totals	2300.7	1892.04

**Attachment B-2
Part 360 Permitted Fields**

The Following Permitted Fields Are Classified As Having A Very High P Index. No Manure or Other Phosphorous Containing Waste May Be Spread On These Fields. Note: The Very High P Index Designation May Be Removed From Or Applied To Individual Fields In The Future Dependent On Soil Analysis and NYSDEC Review and Approval

Field Identification Number	Total Field Area	Spreadable Acres, For permitted Wastes That Do Not Contain Manure and/ or Phosphorous	Spreadable Acres for Manure and Phosphorous Containing Wastes
A1	29.1	26	0
A2	8.3	7.3	0
A3	6.9	6	0
A5N	16.1	13.9	0
A7	14.7	13	0
A11	38.6	28.4	0
A12 N	18.4	16.1	0
B2	14.3	14.3	0
B10	29	25.6	0
B14	5.1	5.1	0
B16	4.5	4.5	0
B17	12.4	12.4	0
C1	13.8	12.2	0
C3	25.6	20.2	0
C4	6.4	0.7	0
D1	29.2	26	0
D2	45.5	40.9	0
E3	19.5	16.9	0
F4	13.2	10.8	0
F5	2	2	0
F6	6.3	6.3	0
F7	8.6	8.6	0
F9	9.1	9.1	0
F10A	17.7	17.7	0
F10B	15.6	15.6	0
F11	21.2	18.8	0
F15	18.9	16	0
F20	22.2	19.3	0
F21	42.2	40.4	0
G2	5.2	3.2	0

**Attachment B-3
Part 360 Permitted Fields**

Waste Listed in Condition 12b, May Be Land Applied On These Fields When The Soil Of The Fields Is Snow Covered And/Or Frozen Contingent On The Restrictions Outlined In Special Condition 12b.				
Field Identification Number	Total Field Area	Spreadable Acres, For permitted Wastes That Do Not Contain Manure and/ or Phosphorous	Spreadable Acres for Manure and Phosphorous Containing Wastes	Area of the Field with a Slope Less Than 4% on Which Land Application Is Allowed On Frozen and or Snow Covered Ground (per condition 12)
A1 *	29.1	26	0	All
B6	25.6	21.9	21.9	South
B8	5.1	5.1	5.1	East
B9	34.6	33.9	33.9	East
B10 *	29	25.6	0	All
B17 *	12.4	12.4	0	North
D2 *	45.5	40.9	0	Center
F20 *	22.2	19.3	0	All
F21 *	42.2	40.4	0	All
I1	17.3	12.1	12.1	All
M2	10	7.5	7.5	All
M5 *	21.4	21.4	0	All
N1	21.9	19.1	19.1	South
P1A *	25.7	24.5	0	All
R11	34.5	34.5	34.5	Center
ST4	20.2	16.4	16.4	North
V2	11.2	7.3	7.3	Part
Total	407.9	309.59	157.80	

*This Fields Is Classified As Having A Very High P Index, No Manure or Other Phosphorous Containing Waste May Be Spread on This Field At Any Time. The Very High P Index Designation May Be Removed From This Field In The Future Dependent On Soil Analysis and NYSDEC Review And Approval.

ATTACHMENT C

ON-SITE LIQUID WASTE STORAGE FACILITIES

1. Covered Lagoon

Manure Only

CAFO Regulations apply

2. Pond #1

Manure Only

CAFO Regulations apply, and
must have certified depth markers.

3. Pond #2 (Spread Pond)

Food Waste Only

666,400 gallons capacity, 2.0 feet minimum freeboard, and
must have certified depth markers.

4. Pond #3 (Recirculation Pond)

Food Waste/Manure mixture

2,206,000 gallon capacity, 2.0 feet minimum freeboard, and
must have certified depth markers.

5. Pond #4 (Irrigation Pond)

Food Waste/Manure mixture

3,640,000 gallon capacity, 2.0 feet minimum freeboard, and
must have certified depth markers.

6. Receiving Mix Tank (concrete storage tank)

Food Waste Only

71,800 gallon capacity, 2.0 feet minimum freeboard, and
must have certified depth markers.

7. Helper Barn concrete storage tank

Permitted Storage Tank:

Part 361-2.7 Regulations apply

Liquid Biosolids, Manure, Liquid Food Processing Waste, or mixture of the three.

53,100 gallon storage capacity, 2.0 feet minimum, and
must have certified depth markers.

ATTACHMENT D

VARIANCES and BIOSOLIDS ANALYTICAL TESTING REQUIREMENTS

Justification for the following variances must be submitted to the Department by March 1, 2018.

The surface impoundments located immediately south and east of the compost building exempted from the requirements of 361-2.7 (c), (d), (f), (l), and (k), as per the variance request dated 3/30/2018 from Philip Dickson and received by the Department on 4/6/2018. This variance was reviewed and reauthorized by Division of Materials Management staff, as previously authorized by a letter dated 12/18/2012 from Salvatore Ervolina, NYSDEC Director of the Division of Materials Management.

BIOSOLIDS ANALYTICAL TESTING REQUIREMENTS

Biosolids from these sources are authorized to be land applied at the Dickson facility.

Village of Watkins Glen

Sampling events required reduced from four to two events per year.

Village of Montour Falls

Sampling events required reduced from four to two events per year.

Borough of Westfield

Sampling events required reduced from four to two events per year.

Village of Bath

Sampling event required reduced from six to four events per year

Village of Warsaw

Sampling events required reduced from six to four events per year.

Attachment E

Waste Streams, Incorporation, Setback and Sampling Requirements Summary

Waste Stream	Sources	Subsequent Destinations	Incorporation Requirements	Setback Requirements	Waste Stream Sampling	Loading and Other
1) Manure Only	Main Barn Pond	Direct to cropland or Manure Reception Separation Storage, then Covered Lagoon	None	Potable well: 100' Surface Water (SW) or Wetland : 200' (Also refer to CAPP Permit and NRCS standards)	Annually from all sources including covered lagoon and Pond No. 1	None to be spread on fields with very high P-index (red shaded on maps).
	Heifer Barn In-ground Storage	Direct to cropland or Manure Reception Separation Storage, then Covered Lagoon				
	Covered Lagoon	Pond No. 1 or cropland				
	Pond No 1	Pond No. 3 or cropland				
	Bedded Pack in Hoppers	Windrow Compost				
2) Liquid Food Waste	Receiving Mix Tank	Pond No. 2	Direct Injection or the equivalent	Drainage Swale: 25' Property Line: 50' Potable Well: 200' SW or Wetland: 200' Residence: 500'	One sample annually for each waste stream at source. One sample Quarterly from Pond No. 2. Group A parameters. See condition #21 for details.	No Phosphorous containing waste to be spread on fields with high P-index.
	Pond No 2	To Cropland (or Pond No. 3)				
	Direct tanker to cropland					
3) Solid Food Processing Waste Only	Windfall Road Reload Station & Other Satellite Temporary Storage Locations	To Cropland	Incorporated within 24 hours	Same as 2) above	One sample annually for each waste stream. Group A parameters. See condition #21 for details.	No Phosphorous containing waste to be spread on fields with high P-index.
4) Food Waste and Manure Blend	Pond No. 3	To Cropland or the Irrigation Pond	Direct Injection or the equivalent	Same as in 2) above	One sample quarterly @ Pond No. 3. Group A parameters. See condition #21 for details.	None to be spread on fields with very high P-index (shaded red).
5) Food Waste and Manure and Bunk Leachate	Irrigation Pond	Direct to cropland by Irrigation Reel or Indirectly to cropland via pond #3	No incorporation requirements if on hay fields.	Same as in 2) above	One sample quarterly @ Irrigation Pond. Group A parameters. See condition #21 for details.	None to be spread on fields with very high P-index (shaded red).
6) WWTP Solids (aka Bio-Solid Sludges)	Windfall Road Reload Station & Other Satellite Temporary Storage Locations	To Cropland	Incorporation into soil within 6 HOURS after application.	Same as in 2) above	Number of samples required for an individual POTW annually. Dependent on the number of dry tons the POTW sends to the Dickson Facility per year. >1000 Ton: 12 200 to 100 Ton: 6 25 to 199 Ton: 4 < 25 Ton: 2 Samples must be analyzed for both Groups A & Group B parameters.	Some WWTP Solids are put into the Compost Facility. No Phosphorous containing waste to be spread on fields with high P-index.
7) Liquid Food Processing Wastes	Heifer Barn Concrete In-ground Storage	To Cropland	Direct Injection or the equivalent	Same as in 2) above	Data required for each POTW is the same as item 6 above.	WWTP Liquids get mixed with manure and liquid food waste in the heifer barn storage tank

ATTACHMENT F
APPLICABLE OPERATIONS REQUIREMENTS AND TABLES

(5) include a written statement from the applicant that the land on which the project is proposed to be located is under the ownership or control of the applicant; and

(6) demonstrate that the quantity and types of waste proposed for use in the project are no more than those needed to satisfy the project's objectives.

(c) Prohibited projects. The department will not issue an RD&D permit under this section that would authorize:

(1) disposal of waste at a facility that would require a permit for a disposal facility regulated under Part 363 of this Title; or

(2) an activity whose primary purpose is to process commercial quantities of waste.

(d) Design and operating requirements.

(1) RD&D projects which include construction of buildings or structures must be performed under the direction of a professional engineer. All other RD&D projects must be performed under the direction of a professional engineer or a research scientist affiliated with an accredited university or research institution.

(2) Compliance with the 40 CFR Part 258 Criteria for Municipal Solid Waste Landfills, as incorporated by reference in section 360.3 of this Title, must be maintained for landfills subject to those requirements.

(3) The quantity and types of waste subject to the RD&D permit must not exceed those needed to effectively address the research objectives. After completion of the RD&D project, all waste must be removed from the project site unless the department authorizes the waste to remain on the project site.

(4) The department may require the permittee to comply with one or more of the design and

operating requirements under this Part and Parts 361, 362, 363, and 365 of this Title.

(5) Within 90 days after the expiration date of the RD&D permit, the permittee must submit to the department a project summary report that includes, at a minimum, the following information:

(i) a summary of the project objectives, information gathered, analyses conducted, and project results, including all monitoring and testing results; and

(ii) a description of any operating problems and the status of their resolution, any other limitations encountered, and areas of further study to be considered.

(iii) Permit duration and renewal. RD&D permits issued under this section will have a specified permit term not to exceed one year. Permits issued under this section will not be renewed more than three times.

Section 360.19 Operating requirements

(a) Applicability. Except as otherwise provided in this Part or in Parts 361, 362, 363, or 365, or Subpart 374-2 of this Title, the owner or operator of a facility that requires a permit or registration must comply with the requirements of this section.

(b) Water protection.

(1) The owner or operator of a facility must prevent waste from being deposited in or entering surface waters or groundwater.

(2) The owner or operator of a facility must operate the facility in a manner that minimizes the generation of leachate and that does not allow any leachate to enter surface waters or groundwater except under authority of a State Pollutant Discharge Elimination System permit.

(c) Waste acceptance and control.

(1) The owner or operator of a facility must institute, maintain, and enforce a waste control plan. Components of this plan must include, but not be limited to, the following measures to ensure that only authorized waste is accepted at the facility:

(i) posting clearly legible signs at all public access points indicating hours of operation and the types of waste accepted and not accepted;

(ii) inspecting incoming loads of waste; and

(iii) specifying which types of waste are authorized to be accepted in contracts with waste suppliers.

(iv) identifying materials intended for beneficial use, a marketing plan for those materials, and a plan for disposal or alternative use of materials that fail to meet the criteria for the intended beneficial use.

(v) in addition, landfills, combustion facilities, thermal treatment facilities, municipal solid waste processing facilities and transfer facilities must:

(a) educate users of their facilities on the proper methods for the management of electronic waste, including:

(1) providing written information annually to all potential users of the facility on the proper methods of recycling electronic waste;

(2) maintaining written information on-site and upon request, providing the information to users of the facility; and

(3) posting, in conspicuous locations at the facility, signs stating that electronic waste cannot be disposed of at the facility; and

(b) post a sign, in a conspicuous

location, stating that mercury-added thermostats are not accepted at the facility.

(2) Except for facilities regulated under section 360.17 and section 360.18 of this Part or Part 361, Part 365, or Subpart 362-4 of this Title, a facility must not accept waste from New York State that is generated within a municipality that is not included in a department-approved comprehensive recycling analysis (CRA) or a department-approved local solid waste management plan (LSWMP).

(3) The owner or operator of a facility must develop and implement a program to train facility staff to implement the waste control plan.

(4) If unauthorized waste is delivered to the facility it must be adequately segregated, secured, and contained in order to prevent leakage or contamination of the environment and must be removed within seven days after receipt, unless a different period is authorized by the department in the waste control plan. Transportation must be performed by a person authorized to transport the waste, and disposition must be to a facility or location authorized to receive the waste for management.

(i) If the owner or operator accepts unauthorized waste, the owner or operator must maintain at the facility a record of each incident identifying the type of waste and its final disposition. The owner or operator must include this information in the facility annual report. For each incident, the owner or operator must record:

(a) the date and time;

(b) a description of the incident;

(c) contact and vehicle information for the waste transporter that delivered the unauthorized waste;

(d) contact information for the generator of the unauthorized waste; and

page 69 of 101

(e) a description of the response to the incident and the disposition of the waste.

(5) The owner or operator of a facility must not accept waste unless the vehicle transporting the waste is adequately covered or the waste is containerized. When leaving the facility, all vehicles containing waste must utilize a cover which prevents waste and leachate from escaping the vehicle, or the waste must be containerized.

(6) The owner or operator of a facility which is authorized to manage mercury-containing devices or mercury-added consumer products must not place any of those materials in a combustor or landfill, or direct the material to a combustor or landfill.

(7) If a facility provides a residential drop-off area for non-commercial vehicles to unload waste and recyclables, the owner or operator must provide a separate, designated area for that activity and must provide for collection of source-separated recyclables, if other collection is not provided to residents.

(8) The owner or operator of a facility must ensure that all waste leaving the facility is destined to be managed at a facility authorized by the department if located in this state, or authorized by the appropriate governmental agency or agencies if located in another state, territory, or nation.

(9) The owner or operator of a facility must ensure that all unloading and loading areas are adequate in size and designed to facilitate efficient movement of waste to and from the collection vehicles and to facilitate the unobstructed movement of vehicles.

(10) The owner or operator of a facility must ensure that all areas containing waste are strictly and continuously secured to prevent unauthorized access by use of fencing, gates, signs, natural barriers, or other suitable means as determined by the department. Waste must not

be used as a barrier.

(11) The owner or operator of a facility must ensure that storage volumes and throughput limits established by the requirements of this Part 360, 361, 362, 363, or 365 of this Title or by the volumes and throughput declared on the registration form for the facility are not exceeded.

(12) An attendant must be on duty at a facility which has permanent operating mechanical equipment whenever the facility is open.

(d) Operation and maintenance. The owner or operator of a facility must ensure that the following criteria are satisfied:

(1) All maintenance and operating activities at the facility are performed in accordance with the facility manual required by 360.16(c)(4) of this Part, if applicable.

(2) The facility accommodates expected traffic flow in a safe and efficient manner. Facility roadways are passable in all weather conditions.

(3) Tracking of soil, waste, leachate and other materials from the facility onto off-site roadways is prevented.

(4) All equipment, storage containers, and storage areas are sufficient for the quantity and type of waste managed at the facility. Adequate numbers, types, and sizes of properly maintained equipment are available during all hours of operation.

(5) All floors and working areas are adequately drained, properly maintained, and standing water is minimized. All drainage and wash waters are collected and handled in a manner acceptable to the department.

(6) The facility is properly graded to prevent soil erosion and to minimize ponding.

(7) Equipment and systems required to

page 70 of 101

manage waste at the facility are properly operated, calibrated, and maintained at all times.

(8) Prior to leaving the facility, any vehicle containing waste must be covered with, at a minimum, a mesh or fabric cover acceptable to the department.

(9) If an unscheduled total facility shutdown exceeds 24 hours, the facility will immediately notify the department describing the incident and the proposed waste management activities.

(e) Routine inspection. The owner or operator of a facility must monitor and inspect the facility for malfunctions, deteriorations, operator errors, and incidents no less frequently than on a daily basis when the facility is open. The owner or operator of a facility must immediately undertake any and all measures needed to eliminate any violation of an operational, closure, or post-closure care requirement of this Part and of Part 361, 362, 363, and 365 of this Title. Measures taken do not preclude the department from exercising its enforcement powers.

(f) Confinement of waste. The owner or operator of a facility must ensure that waste at the facility is confined to an area that can be effectively maintained, operated, and controlled; and that blowing litter is confined to waste holding and

operating areas by fencing or other suitable means. Any litter outside the waste holding area must be controlled.

(g) Dust control. The owner or operator of a facility must ensure that dust is effectively controlled so that it does not constitute a nuisance as determined by the department; and must undertake any and all measures as required by the department to maintain and control dust at and emanating from the facility.

(h) Vector control. The owner or operator of a facility must effectively control on-site populations of vectors.

(i) Odor control. The owner or operator of a facility must ensure that odors are effectively controlled so that they do not constitute a nuisance as determined by the department.

(j) Noise. The owner or operator of a facility must ensure that noise (other than that occurring during construction of the facility) resulting from equipment or operations at the facility does not exceed the following energy equivalent sound levels beyond the property line owned or controlled by the owner or operator of the facility at locations authorized for residential purposes:

Character of Community within a one-mile radius of facility	Leq Energy Equivalent Sound Levels	
	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
Rural	57 decibels (A)	47 decibels (A)
Suburban	62 decibels (A)	52 decibels (A)
Urban	67 decibels (A)	57 decibels (A)

The Leq is the equivalent steady-state sound level which contains the same acoustic energy as the time varying sound level during a one-hour period. It is not necessary that the measurements be taken over a full one-hour time interval, but sufficient measurements must be available to allow a valid extrapolation to a one-hour time interval.

(1) If the background sound level exceeds the referenced Leq sound level limit, the Leq sound levels from facility sources and background sources when combined must not exceed the Leq sound level of the background sources alone by more than 3 decibels (A).

(2) The background sound level, measured as Leq, is the existing ambient sound level during a period of peak acoustical energy measured in the absence of sound produced by equipment or operations at the facility. A background sound level monitoring protocol must be submitted to the Department for approval prior to conducting background measurements.

(3) Sound levels must be measured using the slow time constant and A-weighting. During the measurement period, no precipitation must occur and wind speeds must not exceed 12 miles per hour.

(4) Measuring instruments must be Type 1 or Class 1 precision sound level meters, Type 2 or Class 2 general purpose sound level meters, or corresponding special sound level meters Type S1A or S2A.

(5) Noise assessments must include details of the attenuation factors and calculations utilized. Noise assessment calculations are allowed to utilize average annual conditions when calculating atmospheric attenuation.

(6) Mufflers are required on all internal combustion-powered equipment used at the facility.

(k) Recordkeeping and reporting.

(1) Application documents. The owner or operator of a facility must maintain at the facility or other approved location, and make readily available for inspection throughout the life of the facility including the post-closure care period and the custodial care period, a copy of all information and data required as part of the application for the permit or submittal for registration, as well as construction certification and closure construction certification documents.

(2) Operating records. The owner or operator of a facility must maintain at the facility or other approved location, and make readily available for inspection for a period of no less than seven years

from the date a particular record was created, the following operating records:

(i) A daily log of wastes received that identifies the waste type, quantity, date received, and planning unit where the waste was generated, and the quantity and destination of any waste, products or recyclables that are removed from the facility.

(ii) Routine inspection logs that must include, at a minimum, the following information: the date and time of the inspection, the name of the inspector, a description of the inspection including the identity of specific equipment and structures inspected, the observations recorded, and the date and nature of any remedial actions implemented or repairs made as a result of the inspection.

(iii) All monitoring information necessary for compliance with the requirements of this Part and the requirements applicable to permitted facilities in Parts 361, 362, 363, and 365 of this Title.

(iv) Records documenting training programs, schedules, and certifications as required.

(v) Any other information required in a permit or registration under this Part or that the department may require be created and maintained as part of the daily operating records.

(3) Annual report.

(i) The owner or operator of a facility must submit a completed annual report in a format acceptable to the department no later than March 1 of each year for the previous calendar year, on forms prescribed by the department.

(ii) The owner or operator of a facility required to report to the department related to the facility's compliance under this Part or Parts 361, 362, 363, or 365 of this Title, or under the terms of any permit issued under this Part, must make,

sign, and submit with the report the following certification:

I certify, under penalty of law, that the data and other information identified in this report have been prepared under my direction and supervision in compliance with the system designed to ensure that qualified personnel properly and accurately gather and evaluate this information. I am aware that any false statement I make in such report is punishable pursuant to section 71-2703(2) of the Environmental Conservation Law and section 210.45 of the Penal Law.

(l) Personnel training. The owner or operator of a facility must ensure sufficient and appropriately trained staff are available to manage the quantity and type of waste that will be handled at the facility.

(m) Emergency Response. The owner or operator of a facility must adequately respond to emergencies such as fires, explosions, natural disasters, and spills that occur at the facility.

(n) Tank Requirements. The owner or operator of a facility that includes tanks for waste storage must comply with the following requirements:

(1) All tanks must:

(i) be chemically compatible with the waste being stored;

(ii) be equipped with an overfill prevention system in good working order; and

(iii) have double-walled construction with leak detection, if deemed necessary by the department.

(2) If required by the department, above ground tanks must:

(i) have and maintain a secondary containment system that is compatible with the waste being stored;

(ii) have a secondary containment system designed and built to contain 110 percent of the volume of either the largest tank within the containment system or the total volume of all interconnected tanks, whichever is greater;

(iii) be located on a stable surface which prevents movement, rolling, or settling;

(iv) have a system to remove stormwater from the secondary containment area. Precipitation removal (rain, snow, or ice) must be initiated before ten percent of the storage capacity is reached; and

(v) have a minimum of two feet of freeboard if open on the top.

(3) Self inspection requirements for tanks and related equipment:

(i) tanks must be inspected on no less than a monthly basis when waste is present in the tank, and the interior inspected whenever emptied;

(ii) if the inspection reveals a leak or any other deficiency that would result in failure of the tank, remedial measures must be taken immediately to eliminate the leak or correct the deficiency; and

(iii) the overfill protection system must be inspected monthly when waste is present in the tank.

Section 360.20 Environmental monitoring services

(a) The department may require environmental monitoring services at any facility anytime during the construction, operation, closure, and post-closure of the facility to be paid for by the facility where:

(1) environmental monitoring services are required by law;

(3) In addition to the analyses required in paragraph 361-2.4(e)(1) of this section, the following analyses, in whole or part, may be required, as determined by the department:

(i) fecal coliform, Salmonella sp., enteric viruses, viable helminth ova, other applicable pathogens; and

(ii) any or all of the pollutants identified in Part 375 of this Title or by the department.

(4) An outline of the proposed application rates and justification for the values chosen.

(5) For waste containing any domestic sewage or septage, a detailed description of the processes to reduce pathogenic organisms and vector attraction or sufficient data to demonstrate that human pathogenic organisms are not present in the waste.

(6) A waste monitoring, sampling, and analysis plan that outlines:

(i) the location, purpose, frequency and method for waste sampling;

(ii) the analytical parameters;

(iii) the protocol used to obtain representative samples and for the preparation and preservation of samples; and

(iv) and the laboratory that will be used for analyses.

Section 361-2.5 Design and operating requirements for land application facilities

A land application facility required to obtain a permit must, in addition to the requirements identified in Part 360 of this Title, design, construct, maintain, and operate the facility in compliance with the following criteria. For facilities under this section, a closure

plan and financial assurance are not required.

(a) Pollutant limits.

(1) Each waste destined for land application must not exceed the pollutant concentrations found in Table 6 in section 361-3.9 of this Part.

(2) If the waste contains pollutants at concentrations greater than those set forth in this subdivision, a permit for a land application facility will not be issued unless the generator has implemented an identification and abatement program and has remained in compliance with the requirements of this subdivision for a period of at least six continuous months. At least six analyses for total solids and the parameter(s) of concern must be provided to the department to demonstrate compliance.

(3) Wastewater and partially treated biosolids that are generated at one treatment plant and treated at another wastewater treatment facility before land application are not considered separate waste sources.

(b) Land application criteria.

(1) The minimum horizontal distance from the perimeter of the land application area must comply with the values found in the following table with respect to listed features that exist at the time the initial permit application is submitted to the department.

Feature	Minimum horizontal separation distance (in feet)
Property line.....	50
Residence, place of business, or public contact area when waste is not injected*.....	500
Residence, place of business, or public contact area when waste is injected*.....	200
Potable water well.....	200
Surface water and State regulated wetland when waste is not injected**.....	200

Surface water and State regulated wetland when waste is injected.....	100
Drainage swale.....	25

* Excludes owner's or operator's residence

** For food processing waste: 100 feet

(2) Land application is prohibited in areas where groundwater is within 24 inches of the ground surface at the time of application. Verification of depth to groundwater prior to application can be required by the department. If the field is tilled, the top of the tile must be at least 24 inches below the ground surface and the discharge of the tile must be at least 200 feet from a potable well, surface water, and state-regulated wetland.

(3) Land application is prohibited in areas where bedrock lies less than 24 inches below the ground surface.

(4) The hydraulic loading must not exceed 16,000 gallons per acre in any 24-hour period.

(5) Land application is prohibited on land with a slope exceeding 15 percent. Land application of waste with a total solids content of less than 15 percent is prohibited on land with a slope greater than eight percent, unless incorporated within one hour of application along paths parallel to contour lines for the land.

(6) Land application is prohibited in special flood hazard areas unless approved by the department.

(7) The land application rate must not exceed the lower of the agronomic rate or, for waste with neutralizing value, the application rate needed to achieve a soil pH value in an acceptable range for the crop grown. The department can restrict the application rate based on a nutrient other than nitrogen, such as phosphorus. The application rate must be sufficiently reduced to ensure appropriate application rates are not exceeded if supplemental fertilizer (including manure) will be applied to the site.

(8) In all cases, the waste must be incorporated into the soil within 24 hours after application, unless a cover crop would be damaged by incorporation and concerns regarding odor and run-off can be mitigated by other means approved by the department. If incorporation is used for vector attraction reduction, the period before incorporation is limited to six hours or less.

(9) Land application is prohibited on water-saturated ground or during heavy rainfall. Land application is prohibited on snow-covered or frozen ground, except by direct injection below the land surface. Adequate storage or disposal facilities must be available for periods during the year when waste cannot be applied.

(10) Land application is permitted on all soil types that are capable of supporting the robust growth of the crop grown. The use of active farmland is sufficient to demonstrate compliance with this requirement. Otherwise, sufficient information must be provided to demonstrate compliance.

(11) Proper soil conservation practices and agricultural management practices must be used to minimize run-off and soil loss through erosion.

(12) The temporary field stacking of biosolids prior to land application is allowed, provided the following criteria are met:

(i) the storage period is a maximum of 30 days;

(ii) the residuals are stored on the field where they will be applied and the amount stored does not exceed the amount that will be land applied on the site;

(iii) the storage area complies with the site criteria outlined in paragraphs 360-2.5(b)(1), (2), (3), (6), and (10) of this Subpart;

(iv) the storage area must not be located on

areas with a slope greater than three percent;

(v) the residuals must have sufficient solids content that they will retain their shape if stacked three feet high and must be formed so that precipitation is shed from the pile;

(vi) any run-off from the stockpile must be contained within the land application site; and

(vii) after removal of the residuals, the storage area must be reseeded.

(b) Monitoring, recordkeeping, and reporting.

(1) Sufficient monitoring data and other information needed to demonstrate compliance with the requirements of this Subpart must be obtained. The frequency and type of monitoring necessary for pathogen and vector attraction reduction will be determined by the department on a case-specific basis and will depend on the monitoring methods employed.

(2) The annual report required by paragraph 360.19(k)(3) of this Title must include:

(i) the location of each field used for land application and the acreage used for land application on the field;

(ii) the crop(s) grown on each field;

(iii) the total quantity of waste applied on each field;

(iv) calculations showing the hydraulic loading and nutrient loading for the fields used for land application;

(v) all analytical results required by this Subpart, including copies of all laboratory reports;

(vi) monitoring data and information to demonstrate compliance with the pathogen and vector attraction reduction requirements of this

Subpart, if required;

(vii) for biosolids land application, the following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with Subpart 361-2 of 6 NYCRR Part 361 has been prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that false statements made herein are punishable pursuant to section 210.45 of the penal law."

This statement must be signed by the permit holder or an authorized agent and indicate the name and title of the individual signing;

(viii) a description of any difficulties encountered during land application; any complaints arising as a result of the land application operation and the corrective measures taken; and

(ix) a revised management plan for land application for the next year based on previous application rates and crop planting patterns for the next year. The plan must include an identification of the crops to be grown, fields to be used, and revised nutrient and hydraulic loading rates. All calculations must be included.

(c) Biosolids application. In addition to the requirements identified in subdivisions 361-2.5(a) through (c) of this Subpart, a land application facility including biosolids must comply with the following criteria.

(1) Land application criteria.

(i) Soil pH must be adjusted to 6.0 standard units or higher before land application unless lime-stabilized biosolids is used. If lime-stabilized biosolids is used, the soil pH must be 6.0 standard units or higher after waste application.

(ii) Land application must not adversely affect a threatened or endangered species or its designated critical habitat.

(iii) The annual cadmium application rate must not exceed 0.45 pounds per acre.

(2) Pathogen and vector attraction reduction.

(i) One of the following Class B pathogen reduction alternatives must be satisfied.

(a) Class B - Alternative 1. The biosolids must be treated by one of the following processes:

(1) Aerobic digestion. Biosolids is agitated with air or oxygen to maintain aerobic conditions for a mean cell residence time of at least 40 days at 20 degrees Celsius or greater or at least 60 days if the temperature is less than 20 degrees Celsius but greater than or equal to 15 degrees Celsius.

(2) Air drying. Biosolids is dried on sand beds or on paved or unpaved basins, at a maximum depth of nine inches. The biosolids must dry for a minimum of three months. During at least two of the three months, the ambient average daily temperature must be above zero degrees Celsius.

(3) Anaerobic digestion. Biosolids is treated in the absence of air for a mean cell residence time of at least 15 days at 35 degrees Celsius or greater or at least 60 days at less than 35 degrees Celsius but greater than or equal to 20 degrees Celsius.

(4) Composting. Using the within-vessel, aerated static pile or windrow composting methods, the temperature of the biosolids is raised to 40 degrees Celsius or higher and remains at 40 degrees Celsius or higher for five consecutive days. For at least 4 consecutive hours during the five days, the temperature in the compost pile must exceed 55 degrees Celsius.

(5) Lime stabilization. Sufficient lime must be added to the biosolids to raise the pH of the biosolids to 12 standard units and maintain this pH for a period of at least two hours.

(6) Other methods. Other methods or operating conditions may be acceptable if pathogens are reduced to an extent equivalent to the reduction achieved by any of the above methods and must be approved by the department; or

(b) Class B - Alternative 2. The geometric mean of the density of fecal coliform of seven analyses representative of the biosolids to be land-applied must be less than either 2,000,000 Most Probable Number per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

(ii) One of the following vector attraction reduction requirements must be satisfied:

(a) the mass of volatile solids in the biosolids is reduced by a minimum of 38 percent;

(b) if the volatile solids reduction requirement cannot be met for anaerobically digested biosolids, vector attraction reduction can be demonstrated by anaerobically digesting a portion of the previously digested waste in a laboratory bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. Vector attraction reduction is achieved if the bench-scale digestion produces less than a 17 percent reduction in volatile solids content;

(c) if the volatile solids reduction requirement cannot be met for aerobically digested biosolids, vector attraction reduction can be demonstrated by aerobically digesting a portion of the previously digested waste that has a percent solids of two percent or less in a laboratory bench-scale unit for an additional 30 days at 20 degrees Celsius. Vector attraction reduction is achieved if the bench scale digestion produces less than a 15 percent

reduction in volatile solids content;

(d) the specific oxygen uptake rate (SOUR) for biosolids treated in an aerobic process must be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius;

(e) biosolids is treated by an aerobic process for a minimum of 14 consecutive days. Throughout that treatment time, the temperature of the waste must remain higher than 40 degrees Celsius and the average temperature of the waste must be higher than 45 degrees Celsius;

(f) the pH of the biosolids must be raised to 12 standard units or higher by alkali addition and, without the addition of more alkali, must remain at 12 standard units or higher for two hours and then remain at 11.5 standard units or higher for an additional 22 hours;

(g) for biosolids that does not contain untreated solids generated in a primary wastewater treatment process, the percent solids of the waste must be equal to or greater than 75 percent, before mixing with other materials, until land application;

(h) for biosolids that contains untreated solids generated in a primary wastewater treatment process, the percent solids of the waste must be equal to or greater than 90 percent, before mixing with other materials, until land application;

(i) biosolids must be injected below the surface of the land. No significant amount of waste can be present on the land surface within one hour after the waste is applied; or

(j) biosolids must be incorporated into the soil within six hours after application on the land.

(iii) Access and crop restrictions:

(a) public access to land must be restricted during land application and for at least one

year after land application. Access must be controlled during that period by the use of posted signs, the use of fences and gates or other appropriate means;

(b) food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface must not be grown for at least 14 months after land application. Food crops with harvested parts below the surface of the land must not be grown for at least 38 months after land application;

(c) food crops grown above the soil with harvested parts that do not touch the biosolids/soil mixture, feed crops and fiber crops must not be grown for at least 30 days after land application;

(d) animals must not be grazed on the land for at least 30 days after land application; and

(e) turf grown on land where biosolids has been applied must not be grown for one year after land application when the harvested turf will be placed on either land with a high potential for public exposure or a lawn.

(3) Monitoring, recordkeeping and reporting.

(i) Each biosolids source must be analyzed annually in accordance with the following:

(a) the parameters for analysis are found in Table 1 in section 361-3.9 of this Part;

(b) the minimum number of analyses, for each biosolids source, is dependent upon the amount of waste that was land applied, as indicated in Table 3 in section 361-3.9 of this Part;

(c) with the exception of pH and total solids, all results must be reported on a dry weight basis. The analyses must comply with the criteria found in clauses 361-2.4(e)(1)(ii)(f), (g); and (j) of this Subpart. After the waste has been monitored for two years at the frequency outlined in this paragraph,

the department can reduce the annual number of analyses required if the quality is consistently significantly below the quality standards; and

(d) wastewater and partially treated biosolids that are generated at one facility and treated at another wastewater treatment facility before land application are not considered separate sources subject to the criteria in this paragraph. The resultant biosolids generated for land application are subject to this paragraph.

(ii) Sufficient monitoring data and other information must be obtained and retained to demonstrate compliance with the requirements of this Subpart. The frequency and type of monitoring necessary to demonstrate compliance with pathogen and vector attraction reduction criteria will depend on the methods used, and will be determined by the department.

(iii) Annual soil sampling is required. Criteria applicable to annual soil sampling are found in paragraph 361-2.4(e)(5) of this Subpart.

(e) Land application of other waste. In addition to the requirements identified in subdivisions 361-2.5(a) through (c) of this Subpart, a facility for waste other than biosolids or septage must comply with the following criteria:

(1) Domestic sewage or septage content. If there is any domestic sewage or septage contribution to the treatment facility generating the waste, the waste treatment process must satisfy the pathogen and vector attraction reduction requirements of this Subpart unless it can be demonstrated that the sanitary waste is a minor portion of the waste stream and that *Salmonella* sp. bacteria, enteric viruses, and viable helminth ova are below detectable levels.

(2) Nutrient or lime content. The waste must contain at least one percent total Kjeldahl nitrogen or at least 50 percent calcium carbonate equivalence, or provide sufficient documentation to demonstrate that the material is a benefit to the soil or plant grown.

(3) Monitoring, recordkeeping, and reporting. Annual waste monitoring can be required, depending on the characteristics of the waste. The parameters for analysis and the frequency will be determined by the department depending on the quantity and quality of the waste.

Section 361-2.6 Permit application requirements for storage facilities

A storage facility for waste destined for land application, that is not an exempt facility or subject to the registration provisions of section 361-2.3 of this Subpart, must obtain a permit and must submit an application that includes the requirements identified in this section and section 360.16. The application must include:

(a) For surface impoundments, a construction plan for the facility including a construction quality assurance/construction quality control plan.

(b) For surface impoundments, a hydrogeologic report that is consistent with the applicable provisions of Part 363 and that identifies or characterizes the depth to groundwater and bedrock, the critical stratigraphic section and the direction of groundwater flow. The report must also discuss the monitorability of the facility, location of any recharge areas for primary or principal aquifers and the location of any unstable areas.

(c) A description of how the facility will comply with the operating requirements in Part 360 of this Title and section 361-2.7 of this Subpart.

Section 361-2.7 Design and operating requirements for storage facilities

A storage facility required to obtain a permit must, in addition to the requirements identified in Part 360 of this Title, design, construct, maintain, and operate the facility in compliance with the following criteria.

(a) The minimum horizontal separation distances from the perimeter of the storage facility must be, at a minimum, 50 feet to the property line, 100 feet to a surface water body or potable water well, and 500 feet (1,500 feet for a surface impoundment or open tank) to a residence, place of business, or public contact area. The separation requirement does not apply to the landowner's or operator's residence.

(b) All samples obtained from the storage facility must be representative of the waste stored. The number of samples necessary will be determined by the department based on the waste type and quantity of waste stored.

(c) All storage facilities must be completely emptied, cleaned, and inspected at least once every 12 months. The department must be notified at least five business days before the cleaning operation is begun. Any damage or deterioration revealed by the inspection must be repaired before the storage facility again receives waste.

(d) Surface impoundments must be constructed above the special flood hazard area and must be constructed with a liner system to minimize percolation. The liner system must consist of either a minimum of two feet of compacted soil having a maximum remolded hydraulic conductivity of 1×10^{-7} centimeters per second or a geomembrane material approved by the department. The soil material particles must be able to pass through a one-inch screen.

(e) For surface impoundments, the facility must be monitorable and must not be located within the recharge area of a primary or principal aquifer or in an unstable area.

(f) If soil is used for a liner, the construction criteria in subparagraphs 363-6.7(b)(2)(ii) and (iii) of this Title apply.

(g) Surface impoundments must maintain a minimum of two feet of freeboard. The bottom of

the impoundment liner system must be a minimum of five feet above both seasonal high groundwater and bedrock.

(h) A minimum of one upgradient and two downgradient monitoring wells, or more as determined by the department, must be installed at a surface impoundment facility. If multiple surface impoundments are used and are not in close proximity to each other, then each impoundment must have separate monitoring well arrays.

(i) Existing water quality must be established before placement of any waste in a surface impoundment.

(j) Storage facilities other than surface impoundments can be constructed of concrete, steel, or other material approved by the department. The storage facility must be designed to maintain a minimum of two feet of freeboard.

(k) Quarterly sampling of the wells at surface impoundments must be conducted for the following parameters: chloride, nitrate, ammonia, sulfate, specific conductivity, total hardness, alkalinity, total organic carbon and chemical oxygen demand. In addition, for biosolids storage facilities, annual sampling is required for the following parameters: arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, boron, barium, beryllium, cyanide, turbidity and volatile organic compounds. All samples must be representative of the material sampled. All analyses must be performed by a laboratory certified by the Department of Health, using methods acceptable to the department, unless use of an alternate laboratory or method is authorized by the department.

(1) The department can require sampling for additional parameters based on the type of waste stored and past monitoring results.

(2) Sampling results reported to the department must include a copy of the laboratory results, sampling methods, sampling personnel, dates and times samples were taken, purge volumes, field

parameters and other relevant information.

(3) The department must be notified at least five business days before each sampling event.

Section 361-3.9 Tables

Table 1
Parameters for Analysis

Total Kjeldahl Nitrogen	Arsenic (As)	Products must also analyze for:
Ammonia	Cadmium (Cd)	
Nitrate	Chromium (total) (Cr)	Fecal coliform or Salmonella sp. bacteria
Total Phosphorous	Copper (Cu)	
Total Potassium	Lead (Pb)	
pH	Mercury (Hg)	
Total Solids	Molybdenum (Mo)	
Total Volatile Solids	Nickel (Ni)	
	Selenium (Se)	
	Zinc (Zn)	

Table 2
Analyses Required with Permit Application

Biosolids/Sludge Used (dry tons/year)	Minimum Number of Analyses
>15,000	12
>2,500 to 15,000	6
200 to 2,500	3
25 to 199	2
<25	1

Table 3
Analyses Required During Operation - Biosolids

Biosolids Used (dry tons/year)	Minimum Number of Analyses	Reduced Frequency for Low Pollutants*
>15,000	24	12
>2,500 to 15,000	12	6
200 to 2,500	6	4
25 to 199	4	2
<25	2	1

*Applies to facilities where two consecutive years of biosolids pollutant levels are all at or below one-half of the limits found in Table 6 if approved by the department.

Table 4
Annual Product Testing Frequency - Biosolids/Sludge/MSW

Average Product Generated (cubic yards per day)	Number of Analyses
>50	52
5-50	12
<5	6

Table 5
Annual Product Testing Frequency - SSO

Average Product Generated (cubic yards per day)	Number of Analyses
>50	12
5-50	4
<5	2

Table 6
Pollutant Limits

Parameter	Maximum Concentration mg/kg, dry weight
Arsenic (As)	41
Cadmium (Cd)	10
Chromium (Cr-total)	1,000
Copper (Cu)	1,500
Lead (Pb)	300
Mercury (Hg)	10
Molybdenum (Mo)	40
Nickel (Ni)	200
Selenium (Se)	100
Zinc (Zn)	2,500