

Lot's A & B Site Evaluation Notes - Aitkin county

24-051

Property Owner: Luke Magness

Date: 4/2/24

Site Address: 41505 400th Ln Aitkin Mn 56431

PID: 01-0-004400

Comments: Each Soil Site is 50' x 100'

- 1 Owner is splitting off approx. 12 acre lot (Lot A) off of a 107 area parcel.
- 2 Each new lot will have 2 septic sites. Type I soils. 50' x 100' each.
- 3 Lot A has a proposed septic mound Type I , and a 2nd soil site B.
- 4 Lot B has 2 soil sites (type I soils). 50' x 100' each
- 5 Designer used existing benchmark on Cottonwood tree west of proposed mound, Nail Elv.= 100'

Designed to Aitkin Co. and MPCA recommendations and requirements.


Designer Signature

Brummer Septic LLC.
Design Company

L-1347
License#

Septic Site Evaluation Lots A & B

www.SepticResource.com vers 12.4

Owner Information			
Date	<u>4/2/2024</u>	Sec / Twp / Rng	<u>S-2, T-47, R-27</u>
Parcel ID	<u>01-0-004400</u>	LUG (county, city, township)	<u>Aitkin Co.</u>
Property Owner:	<u>Luke Magness</u>	Owners address (if different)	
Property Address:	<u>41505 400th Ln Aitkin Mn 56431</u>		
City / State / Zip:			


Flow Information and Waste Type / Strength			
Estimated Design flow	<u>Septic Site Evaluation</u>	Anticipated Waste strength	<input type="checkbox"/> Hi Strength <input type="checkbox"/> Domestic
Comments: Owner is splitting lot for house approx 12 acres Lot A is the House lot, has septic design for house. Lot B is the rest of original 107 acres, Lot B has 2 sites Each Alt Site for both lots are 50' x 100'		Any Non-Domestic Waste	<input type="checkbox"/> Yes (class V) <input type="checkbox"/> No
		Sewage ejector/grinder pump	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Water softener	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Garbage Disposal	<input type="checkbox"/> Yes <input type="checkbox"/> No
		Daycare / In home business	<input type="checkbox"/> Yes <input type="checkbox"/> No

Site Information					
Existing & proposed lot improvements located (see site map)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Well casing depth	All wells + 100 ft from area	
Easements on lot located (see site map)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Drainfield w/in 100' of residential well	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Property lines determined (see site map)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site w/in 200' of transient noncommunity water supply (TNCWS)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Req'd setbacks determined (see site map)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site w/in an inner wellhead mgmt zone (CWS/NTNCWS)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Utilities located & identified (gopher state one call)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Buried water supply pipe w/in 50' of system	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Access for system maintenance (shown on site map)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site located in Shoreland (w/in 1000' of lake, 300' of river)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Soil treatment area protected	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site map prepared with previous items included	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Construction related issues	<u>Bench Mark Nail is the same benchmark used for mound design</u> <u>Bench Mark Nail is on the South side of lager cottonwood tree west of mound.</u> Soil borings are for septic sites only not for design use.				

Soil Information

		Evidence of site:		
		Cut	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
		Filled	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
		Compacted	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
		Disturbed	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Original soils	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Soil logs completed and attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Perk test completed and attached (if applicable)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Soil loading rate (gpd/ft ²)	_____	Percolation rate (if applicable)	_____	
Depth/elev to SHWT	_____	Flooding or run-on potential (comments)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Depth to system bottom maximum (or elev minimum)	_____	Flood elevation (if applicable)	_____	
Depth/elev to standing water (if applicable)	_____	Elevation of ordinary high water level (if applicable)	_____	
Depth/elev to bedrock (if applicable)	_____	Floodplain designation and elev - 100 yr/10 yr (if applicable)	_____	
Soil Survey information determined (see attachment)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Differences between soil survey and field evaluation (if applicable)	_____ _____			

I hereby certify this evaluation was completed in accordance with MN 7080 and any local req's.



 Designer Signature

Brummer Septic LLC.

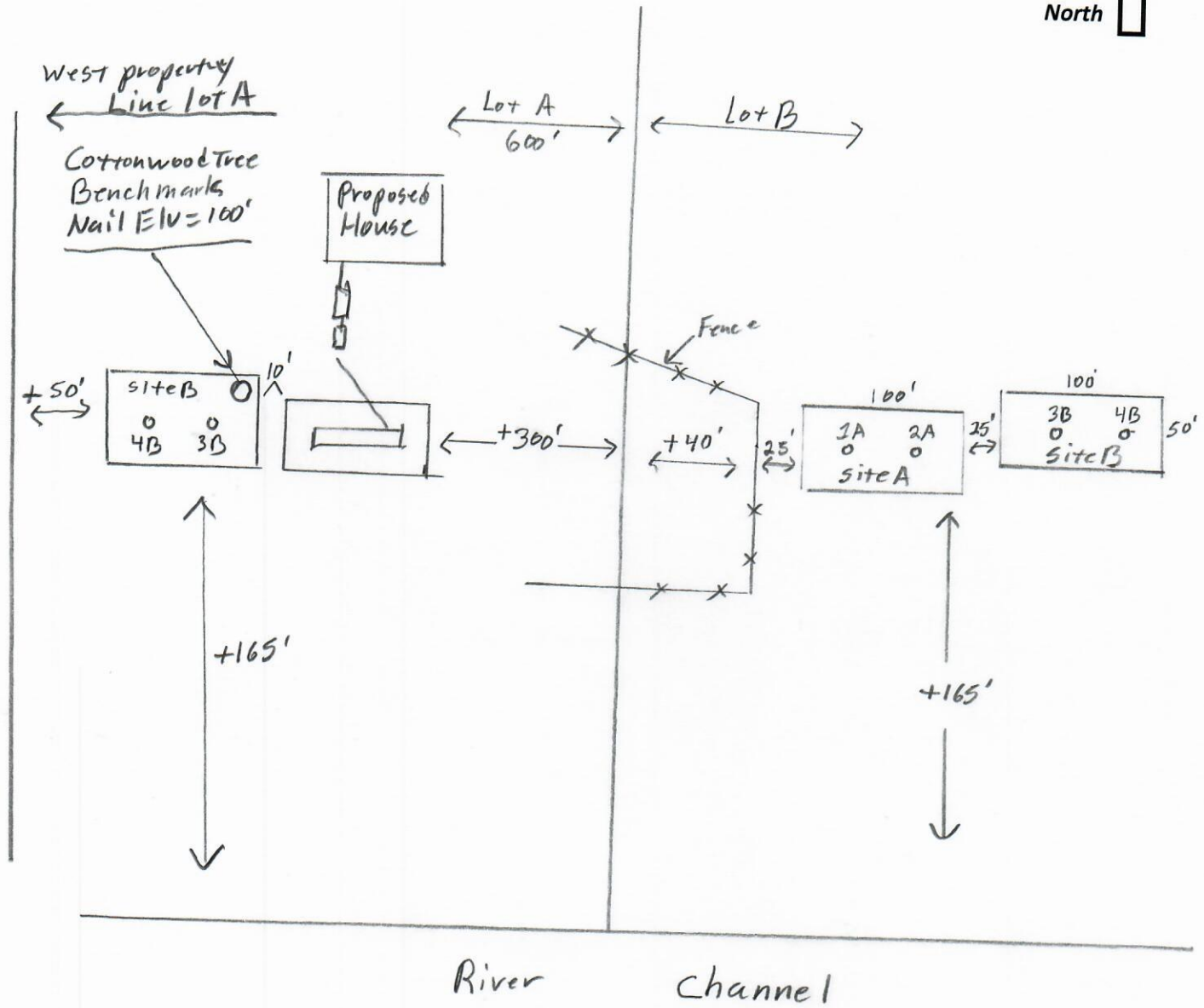
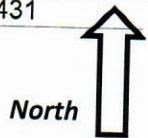
 Company

L-1347

 License #

{Lot's A & B Site Evaluation Drawing }

Property Owner: Luke Magness Date: 4/2/24 Designer's Initials: JB
 Parcel ID. Number: 01-0-004400 Address: 41505 400th Ln Aitkin Mn 56431
 one Inch = 100ft.



	Lot A Site B	Nail on Cottonwood= Bench Mark 100'	
Soil Bore 3B	97.5' / 16"	Bench Mark	100'
Soil Bore 4B	97.1' / 16"	Ground Elv. BM	98.8'
		Approx. Channel Water Elv. = 79'	
		Lot B Soil Sites A & B	
		Soil Bore 1A = 98.9' / 16"	
		Soil Bore 2A = 99.1' / 16"	
		Soil Bore 3B = 98.2' / 16"	
		Soil Bore 4B = 97.6' / 16"	

Please show all that apply (Existing)

- Wells within 100ft. Of Drain field.
- Water lines within 10 ft. of Drain field.
- Drain field Areas:

Please Draw to Scale with North to Top or Left Side of Page:

- | | | |
|---------------------------|-----------------------------------|----------------|
| Disturbed/Compacted Areas | Access Route for Tank Maintenance | Property Lines |
| Component Location | Structures | Setbacks |
| OHW ordinary high water | Lot Easements | |



Map may not be valid at this scale. Data was mapped at an accuracy of 1:24,000 so any representation of the data at a larger scale is not advised.

These data are provided on an "AS-IS" basis, without warranty of any type, expressed or implied, including but not limited to any warranty as to their performance, merchantability, or fitness for any particular purpose.

Magnuss



Date: 4/1/2024

Web AppBuilder for ArcGIS

1 inch = 376 feet

0 0.0025 0.045 mi

1:4,514

Soil Observation Log Lot A

www.SepticResource.com vers 12.4

Owner Information

Property Owner / project: Luke Magness Date 4/2/2024

Property Address / PID: 41505 400th Ln Aitkin Mn 56431

Soil Survey Information

refer to attached soil survey

Parent mat'l's: Till Outwash Lacustrine Alluvium Organic Bedrock

landscape position: Summit Shoulder Side slope Toe slope

soil survey map units: 759 slope 3 % direction- NW

~~Soil Log #1~~

Boring Pit Elevation _____ Depth to SHWT _____

Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape

Comments: Ground Frost 0" to 3" Sunny day

41505 400th Ln Aitkin Mn 56431

Lot A Soil Log #3B Site B

		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>97.5'</u>		Depth to SHWT <u>Below 16"</u>	
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
6 - 16	Sandy Loam	<35	10YR5/4		Loose	Loose	Granular

41505 400th Ln Aitkin Mn 56431

Lot A Soil Log #4B Site B

		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>97.1'</u>		Depth to SHWT <u>Below 16"</u>	
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 5	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
5 - 14	Sandy Loam	<35	10YR5/4		Loose	Loose	Granular
14 - 16	Sandy Loam	<35	10YR6/4		Loose	Loose	Granular

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Soil Observation Log

Lot B

www.SepticResource.com vers 12.4

Owner Information

Property Owner / project: Luke Magness

Date 4/2/2024

Property Address / PID: 41505 400th Ln Aitkin Mn 56431

Soil Survey Information

refer to attached soil survey

Parent mat'l's: Till Outwash Lacustrine Alluvium Organic Bedrock

landscape position: Summit Shoulder Side slope Toe slope

soil survey map units: 795 slope 45299 % direction- North

Boring Pit Elevation _____ Depth to SHWT _____

Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape

Comments: Frost from zero to 3" Sunny Day

41505 400th Ln Aitkin Mn 56431

Lot B Soil Log #1A Site A

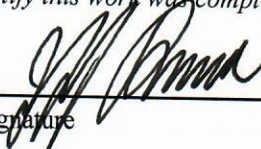
		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>98.9'</u>		Depth to SHWT <u>Below 16"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape	
0 - 5	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular	
5 - 16	Sandy Loam	<35	10YR6/4		Loose	Loose	Granular	

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Lot B Soil Log #2A Site A

		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>99.1'</u>		Depth to SHWT <u>Below 16"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape	
0 - 4	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular	
4 - 16	Sandy Loam	<35	10YR6/4		Loose	Loose	Granular	

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L-1347

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41505 400th Ln Aitkin Mn 56431

Lot B Soil Log #3B Site B

<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation <u>98.2'</u>		Depth to SHWT <u>Below 16"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 5	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
5 - 16	Sandy Loam	<35	10YR6/4		Loose	Loose	Granular

41505 400th Ln Aitkin Mn 56431

Lot B Soil Log #4B Site B

<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation <u>97.6'</u>		Depth to SHWT <u>Below 16"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 5	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
5 - 16	Sandy Loam	<35	10YR6/4		Loose	Loose	Granular

I hereby certify this work was completed in accordance with MN 7080 and any local req's.

Designer Signature 

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Company

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License #



Detailed Parcel Report

Parcel Number: 01-0-004400

General Information

Township/City:	AITKIN TWP		
Taxpayer Name:	MAGNESS, LUKE B & STACIE M		
Taxpayer Address:	41505 400TH LN		
	AITKIN MN 56431		
Property Address:	41505 400TH LN		
Township:	47	Lake Number:	1060400
Range:	27	Lake Name:	Mississippi River
Section:	2	Acres:	107.27
Green Acres:	No	School District:	1.00
Plat:			
Brief Legal Description:	GOVT LOTS 1-4 N OF DIVERSION CHANNEL		

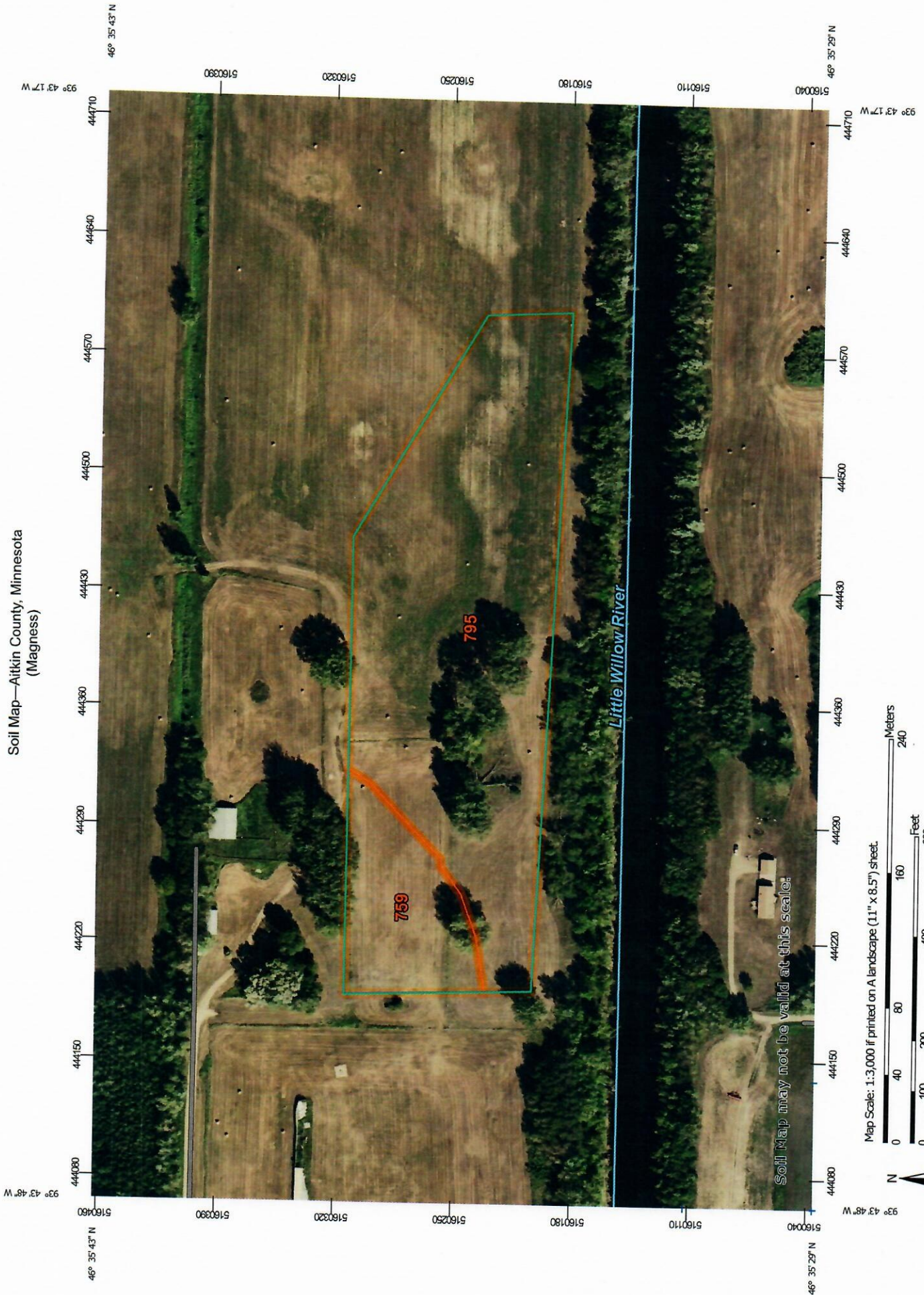
Tax Information

Class Code 1:	Agricultural
Class Code 2:	Ag Non-Productive Contiguous
Class Code 3:	Unclassified
Homestead:	Owner Homestead
Assessment Year:	2024
Estimated Land Value:	\$164,000.00
Estimated Building Value:	\$9,800.00
Estimated Total Value:	<u>\$173,800.00</u>
Prior Year Total Taxable Value:	\$136,000.00
Current Year Net Tax (Specials Not Included):	\$0.00
Total Special Assessments:	\$0.00
**Current Year Balance Not Including Penalty:	\$0.00
Delinquent Taxes:	No

*** For more information on delinquent taxes, please call the Aitkin County Treasurer's Office at 218-927-7325.**

**** Balance Due on a parcel does not include late payment penalties.**

Soil Map—Aitkin County, Minnesota
(Magness)



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

Aitkin County, Minnesota

759—Waukenabo fine sandy loam

Map Unit Setting

National map unit symbol: gjjn
Elevation: 980 to 1,310 feet
Mean annual precipitation: 20 to 27 inches
Mean annual air temperature: 37 to 41 degrees F
Frost-free period: 95 to 105 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Waukenabo and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Waukenabo

Setting

Landform: Swales on lake plains
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Sandy and silty glaciolacustrine deposits

Typical profile

A - 0 to 6 inches: fine sandy loam
Eg1,Eg2 - 6 to 15 inches: loamy sand
Btg1,Btg2 - 15 to 28 inches: sandy loam
Bkg - 28 to 30 inches: very fine sandy loam
Cg1,Cg2 - 30 to 80 inches: stratified fine sand to silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 6 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Ecological site: F088XY008MN - Wet Mixed Forest
Forage suitability group: Level Swale, Acid (G088XN005MN)

Other vegetative classification: Level Swale, Acid
(G088XN005MN)
Hydric soil rating: Yes

Minor Components

Sago

Percent of map unit: 8 percent
Landform: Depressions
Hydric soil rating: Yes

Cowhorn

Percent of map unit: 7 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Aitkin County, Minnesota
Survey Area Data: Version 24, Sep 9, 2023

Aitkin County, Minnesota

795—Redby loamy fine sand, stratified substratum

Map Unit Setting

National map unit symbol: gjjp
Elevation: 980 to 1,640 feet
Mean annual precipitation: 25 to 30 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 120 to 140 days
Farmland classification: Not prime farmland

Map Unit Composition

Redby, stratified substratum, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Redby, Stratified Substratum

Setting

Landform: Flats on lake plains
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Sandy glaciolacustrine deposits

Typical profile

Ap - 0 to 7 inches: loamy fine sand
E - 7 to 25 inches: sand
BE,Bt,BC - 25 to 42 inches: fine sand
C - 42 to 60 inches: stratified fine sand to fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: About 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Ecological site: F088XY011MN - Moist Sandy Mixed Forest
Forage suitability group: Level Swale, Low AWC, Acid (G090AN007MN)

Other vegetative classification: Level Swale, Low AWC, Acid
(G090AN007MN)
Hydric soil rating: No

Minor Components

Cormant

Percent of map unit: 5 percent
Landform: Flats
Hydric soil rating: Yes

Markey

Percent of map unit: 5 percent
Landform: Bogs
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Aitkin County, Minnesota
Survey Area Data: Version 24, Sep 9, 2023