

# Preliminary & Field Evaluation Form

www.SepticResource.com vers 12.4

Owner Information			
Date	<u>7/8/2019</u>	Sec / Twp / Rng	<u>S-18, T-49, R-26</u>
Parcel ID	<u>35-0-030203</u>	LUG (county, city, township)	<u>Aitkin Co.</u>
Property Owner:	<u>James Sandberg</u>	Owners address (if different)	
Property Address:	<u>39406 498th Ln. Palisade MN 56469</u>	<u>530 Linden Ln.</u>	
City / State / Zip:		<u>Lino Lakes MN 55014</u>	

Flow Information and Waste Type / Strength			
Estimated Design flow _____	Anticipated Waste strength	<input type="checkbox"/> Hi Strength	<input type="checkbox"/> Domestic
Comments: Alternate site for property split	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	Existing deep well	
Easements on lot located (see site map)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Drainfield w/in 100' of residential well	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Property lines determined (see site map) By Others	<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>Alternate site is in a wooded area West of Driveway.</u>				
	<u>Alt Site 50' x 100'</u>				

### 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 <sup>2</sup> )	<u>0.60</u>		Percolation rate (if applicable) _____
Depth/elev to SHWT	<u>16"</u>		Flooding or run-on potential <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (comments)
Depth to system bottom maximum (or elev minimum)	<u>NA</u>		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 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 #

# Soil Observation Log

www.SepticResource.com vers 12.4

Owner Information	
Property Owner / project: <u>James Sandberg</u>	Date <u>7/8/2019</u>
Property Address / PID: <u>39406 498th Ln. Palisade MN 56469</u>	

Soil Survey Information	
<input type="checkbox"/> refer to attached soil survey	
Parent mat'l's:	<input checked="" type="checkbox"/> Till <input type="checkbox"/> Outwash <input type="checkbox"/> Lacustrine <input type="checkbox"/> Alluvium <input type="checkbox"/> Organic <input type="checkbox"/> Bedrock
landscape position:	<input type="checkbox"/> Summit <input type="checkbox"/> Shoulder <input checked="" type="checkbox"/> Side slope <input type="checkbox"/> Toe slope
soil survey map units:	<u>204B &amp; 928D</u> slope <u>(3-6)</u> %    direction- <u>West</u>

Top of Deep Well Cap Elv.= 100'

Soil Log #1B Alternite site							
		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>99.1'</u>	Depth to SHWT <u>26"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
6 - 26	Sandy Loam	<35	10YR4/4		Loose	Loose	Granular
26 - 29	Loam	<35	10YR5/4	7.5YR5/6 & 10YR6/2	Friable	Loose	Granular
		<35					
		<35					

Comments:


39406 498th Ln. Palisade MN 56469 **Soil Log #2B Alternate Site**

<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation <u>98'</u>		Depth to SHWT <u>16"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	Topsoil Sandy Laom	<35	10YR3/2		Loose	Loose	Granular
6 - 16	Loam	<35	10YR6/3 E Horizon		Loose	Loose	Granular
16 - 21	Silt Loam	<35	10YR6/3E & 10YR4/4B E & B Horizon Blending	7.5YR5/4	Friable	Weak	Blocky
		<35					
		<35					

39406 498th Ln. Palisade MN 56469 **Soil Log #3**

<input type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation _____		Depth to SHWT _____			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive

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

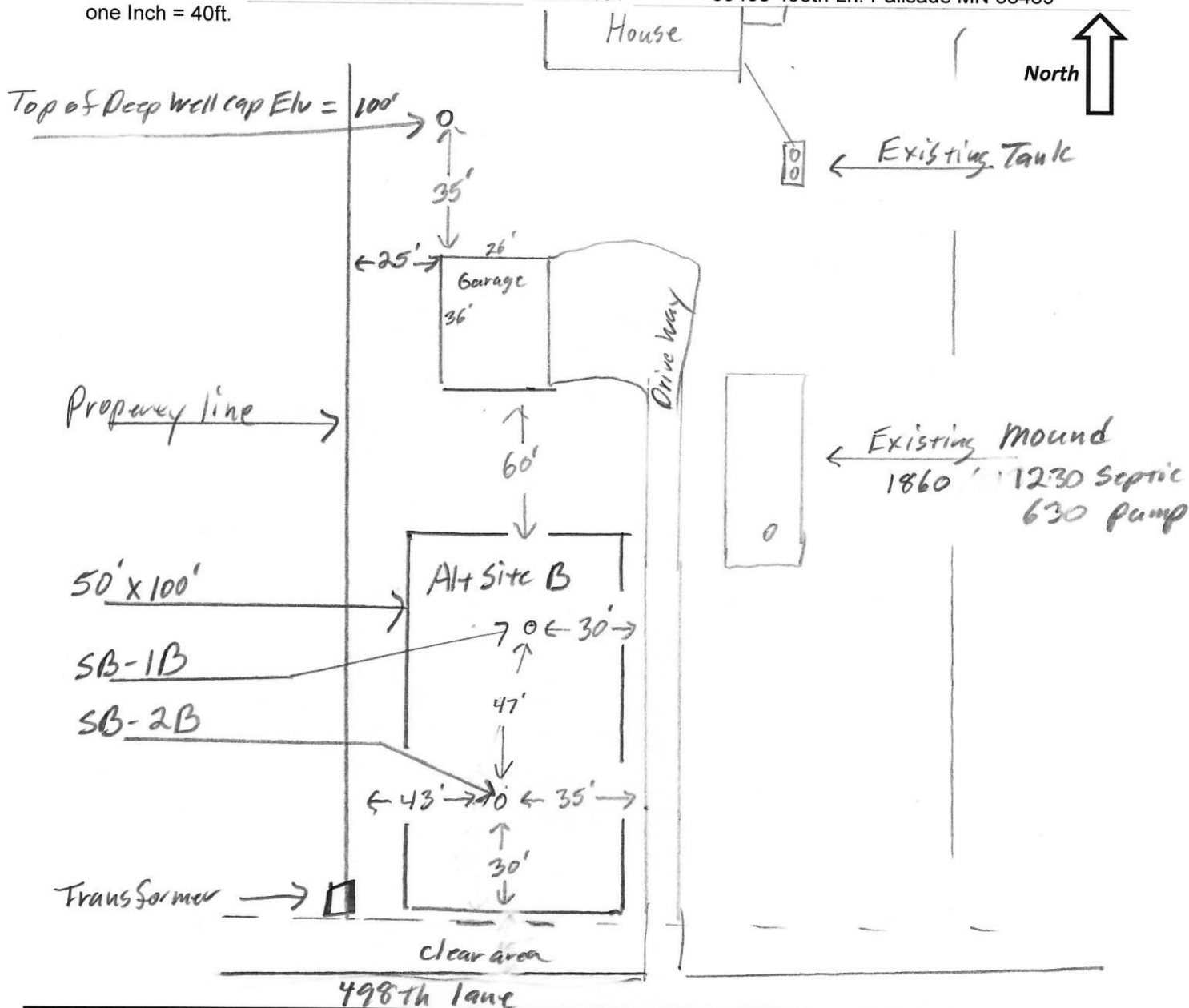
  
 \_\_\_\_\_  
 Designer Signature

**Brummer Septic LLC.**  
 \_\_\_\_\_  
 Company

**L-1347**  
 \_\_\_\_\_  
 License #

## { Design Drawing }

Property Owner: James Sandberg      Date: 7/8/19      Designer's Initials: JB  
 Parcel ID. Number: 35-0-030203      Address: 39406 498th Ln. Palisade MN 56469  
 one Inch = 40ft.



	Surface/ SHWT	Top of well cap = Bench Mark 100'		Existing Grade	
Soil Bore 1B	99.1'26"	Bench Mark	100'		
Soil Bore 2B	98'16"	Ground Elv. BM	98.6'		
Soil Bore 3		Ground Elv. Tank	93.2'		
	Ground at	Existing house	97.8'	Front	

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 |
| Component Location        | Property Lines                    |
| OHW ordinary high water   | Structures                        |
| Lot Easements             | Setbacks                          |



# Detailed Parcel Report

Parcel Number: 35-0-030203

## General Information

**Township/City:** WAUKENABO TWP  
**Taxpayer Name:** SANDBERG, JAMES J & CYNTHIA  
**Taxpayer Address:** 530 LINDEN LANE  
LINO LAKES MN 55014  
**Property Address:** 39406 498th Ln  
**Township:** 49      **Lake Number:** 1014700  
**Range:** 26      **Lake Name:** ESQUAGAMAH LAKE  
**Section:** 18      **Acres:** 6.00  
**Green Acres:** No      **School District:** 1.00  
**Plat:**  
**Brief Legal Description:** BAL E 750 FT OF LOT 2 LESS 18.32 AC

## Tax Information

**Class Code 1:** Non-Comm Seasonal Residential Recreational  
**Class Code 2:** Unclassified  
**Class Code 3:** Unclassified  
**Homestead:** Non Homestead  
**Assessment Year:** 2019

**Estimated Land Value:** \$154,300.00  
**Estimated Building Value:** \$161,200.00  
**Estimated Total Value:** \$315,500.00  
**Prior Year Total Taxable Value:** \$248,200.00  
**Current Year Net Tax (Specials Not Included):** \$2,076.00  
**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.**



# Minnesota Well Index

## General Information

Unique Well ID:	<b>615273</b>	Well Name:	<b>SANDBERG, JIM</b>	County:	<b>Aitkin</b>	Aquifer:	<b>Quat. buried artes. aquifer</b>
Well Elevation (msl in feet):	<b>1266</b>	Drilled Depth (ft):	<b>92</b>	Well Completed (ft):	<b>92</b>	Date Drilled:	<b>07/09/1998</b>
Township:	<b>49</b>	Range:	<b>26</b>	Dir:	<b>W</b>	Section:	<b>18</b>
Subsection:	<b>ABDADB</b>	Use:	<b>domestic</b>	Well Status:	<b>Active</b>	Depth To Bedrock:	
Driller:	<b>Northland Well Co.</b>	Entry Date:	<b>05/19/1999</b>	Update Date:	<b>11/21/2017</b>		

## Related Resources:

[Go to MN Well Index Map](#)  
 [Well Log Report](#)  
 [Scanned Record\(s\)](#)  
 [Stratigraphy Report](#)

[More Details](#)
[Stratigraphy](#)
[Address](#)
[Chemical Data](#)
[Construction](#)
[Pump Test](#)
[Static Water](#)
[Comments](#)
[Location Changes](#)
[Overview Map](#)

Description	From(ft)	To(ft)	Color	Hardness	Lith Primary	Lith Secondary	Interpretation
SANDY CLAY (ROCKS)	0	20	BROWN	MEDIUM	CLAY	COBL	pebbly sand/silt/clay-brown
CLAY	20	55	GRAY	MEDIUM	CLAY		clay-brown
SAND (ROCKS)	55	92	GRAY	SOFT	SAND		sand +larger-gray

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
204B	Branstad loam, 2 to 6 percent slopes	0.2	55.7%
928D	Cushing-Mahtomedi complex, 10 to 25 percent slopes	0.1	44.3%
<b>Totals for Area of Interest</b>		<b>0.3</b>	<b>100.0%</b>

Soil Map

(not to scale)

**Warning: Soil Map may not be valid at this scale.**

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil surveys that comprise your AOI were mapped at 1:20,000. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.



## Aitkin County, Minnesota

### 204B—Branstad loam, 2 to 6 percent slopes

#### Map Unit Setting

*National map unit symbol:* gjfx  
*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:* All areas are prime farmland

#### Map Unit Composition

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

#### Description of Branstad

##### Setting

*Landform:* Moraines  
*Landform position (two-dimensional):* Backslope, summit  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Parent material:* Loamy till

##### Typical profile

*A - 0 to 2 inches:* loam  
*E,Bw,E',E/B - 2 to 17 inches:* fine sandy loam  
*Bt1,Bt2 - 17 to 36 inches:* loam  
*Bt3 - 36 to 43 inches:* loam  
*C - 43 to 60 inches:* loam

##### Properties and qualities

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):*  
 Moderately high to high (0.20 to 2.00 in/hr)  
*Depth to water table:* About 30 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 10 percent  
*Available water storage in profile:* Moderate (about 8.5 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* C  
*Forage suitability group:* Sloping Upland, Neutral (G090AN002MN)  
*Hydric soil rating:* No

### Minor Components

#### **Alstad and similar soils**

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### **Cromwell and similar soils**

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### **Cutaway and similar soils**

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### **Hamre and similar soils**

*Percent of map unit:* 2 percent  
*Landform:* Depressions  
*Hydric soil rating:* Yes

#### **Seelyeville and similar soils**

*Percent of map unit:* 2 percent  
*Landform:* Bogs  
*Hydric soil rating:* Yes

#### **Talmoon and similar soils**

*Percent of map unit:* 2 percent  
*Landform:* Swales  
*Hydric soil rating:* Yes

## Data Source Information

Soil Survey Area: Aitkin County, Minnesota  
Survey Area Data: Version 19, Sep 12, 2018

## Aitkin County, Minnesota

### 928D—Cushing-Mahtomedi complex, 10 to 25 percent slopes

#### Map Unit Setting

*National map unit symbol:* gjk5  
*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

*Cushing and similar soils:* 45 percent  
*Mahtomedi and similar soils:* 40 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Cushing

##### Setting

*Landform:* Moraines  
*Landform position (two-dimensional):* Shoulder, backslope  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Loamy till

##### Typical profile

*E - 0 to 7 inches:* loam  
*B/E - 7 to 17 inches:* loam  
*Bt - 17 to 30 inches:* loam  
*C - 30 to 60 inches:* loam

##### Properties and qualities

*Slope:* 10 to 25 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):*  
Moderately high (0.20 to 0.60 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 10 percent  
*Available water storage in profile:* High (about 9.1 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* C  
*Forage suitability group:* Sloping; Fine Texture (G090AN023MN)  
*Hydric soil rating:* No

## Description of Mahtomedi

### Setting

*Landform:* Moraines

*Landform position (two-dimensional):* Shoulder, backslope

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Sandy and gravelly outwash

### Typical profile

*A - 0 to 3 inches:* loamy coarse sand

*E - 3 to 13 inches:* coarse sand

*Bw - 13 to 25 inches:* gravelly coarse sand

*C - 25 to 60 inches:* gravelly sand

### Properties and qualities

*Slope:* 10 to 25 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Excessively 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:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 15 percent

*Available water storage in profile:* Low (about 4.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 6s

*Hydrologic Soil Group:* A

*Forage suitability group:* Sandy (G090AN022MN)

*Hydric soil rating:* No

### Minor Components

#### Alstad and similar soils

*Percent of map unit:* 8 percent

*Hydric soil rating:* No

#### Cathro and similar soils

*Percent of map unit:* 7 percent

*Landform:* Bogs

*Hydric soil rating:* Yes

## Data Source Information

Soil Survey Area: Aitkin County, Minnesota

Survey Area Data: Version 19, Sep 12, 2018