Appendix A Summary Table

Survey	Site	Native Plant Community Code Description				
Date (s) 6/29/2016		Community Code	•	Point Summary		
and	BR01	OPp93	Calc Fen - Prairie Extremely Rich Fen	80		
8/15/2016	Bitto	01 p/3	Cuto Fon France Examinery Filters Fon	00		
7/1/2016	BR02	WMp73	Prairie Wet Meadow/Carr	0		
7/1/2016	BR02	MRp93	Prairie Bulrush-Arrowhead Marsh	0		
6/30/2016	BR03	WMp73	Prairie Wet Meadow/Carr	0		
6/30/2016	BR04	WMs83	Southern Seepage Meadow/Carr	0		
6/30/2016	BR05	None	Degraded Wet Meadow/Cattail Marsh	0		
6/30/2016	BR06	None	Drainage swale dominated by reed canary grass	0		
N/A	BR07	N/A	Not Evaluated	0		
6/30/2016	BR08	WM	Wet Meadow Community - no type assigned	0		
6/30/2016	BR09	None	Upland	0		
6/30/2016	BR10	None	Upland	0		
6/30/2016	BR11	None	Drainage Swale	0		
6/30/2016	BR12	WMs83	Southern Seepage Meadow/Carr	25		
6/30/2016	BR13	WMs83	Southern Seepage Meadow/Carr	25		
6/30/2016			1 6			
and	BR14	WM or OP	Wet Meadow or Calc Fen	50		
8/15/2016						
7/1/2016	BR15	None	Upland	0		
7/1/2016	BR16	None	Upland	0		
7/1/2016	BR17	WMp73	Prairie Wet Meadow/Carr	0		
7/1/2016	BR18	WMp73	Prairie Wet Meadow/Carr	0		
7/1/2016	BR19	WMs83	Southern Seepage Meadow/Carr	25		
7/1/2016	BR20	WMs83	Southern Seepage Meadow/Carr	25		
7/1/2016	BR21	WMp73	Prairie Wet Meadow/Carr	0		
7/1/2016	BR22	OPp93	Calc Fen - Prairie Extremely Rich Fen	190		
7/1/2016	BR23	OPp93	Calc Fen - Prairie Extremely Rich Fen	55		
8/16/2016	BR24	None	Upland	0		
8/16/2016	BR25	OPp93	Calc Fen - Prairie Extremely Rich Fen	75		
8/16/2016	BR26	None	Upland	0		
8/16/2016	BR27	WM	Degraded Wet Meadow	0		
8/16/2016	BR28	None	Upland/Degraded Wetland	0		
8/16/2016	BR29	None	Upland	0		
8/16/2016	BR30	None	Upland	0		
8/16/2016	BR31	None	Upland	0		
8/16/2016	BR32	OPp93	Calc Fen - Prairie Extremely Rich Fen	110		
8/16/2016	BR33	WM	Wet Meadow Complex	0		
8/28/2017	BR34	None	Drainage Swale	0		
8/28/2017	BR35	None	Degarded Marsh	0		
8/28/2017	BR36	None	Drainage Swale/Degraded Wetland	0		
8/28/2017	BR37	WM	Degraded Wet Meadow	0		

Appendix B Summary of Scoring Results

Site	C. aquatilis	C. hystericina	C. prairea	C. sterilis	G. procera	L. kalmii	P. glauca	R. capillacea	S. verticillata	T. maritima	T. palustris	C. bulbosa	C. interior	E angustifolium	L. loeselli	S. boreale	Point Summary Native Plant Community
BR01	25	25									25	5					80 OPp93
BR02a																	0 WMp73
BR02b																	0 MRp73
BR03																	0 WMs83
BR04																	0 WMs83
BR05																	0 None
BR06																	0 None
BR07																	0 N/A
BR08																	0 WM
BR09																	0 None
BR10																	0 None
BR11																	0 None
BR12		25															25 WMs83
BR13		25															25 WMs83
BR14		25				25											50 WM or OP
BR15																	0 None
BR16																	0 None
BR17																	0 WMp73
BR18																	0 WMp73
BR19		25															25 WMs83
BR20		25															25 WMs83
BR21																	0 WMp73
BR22	25		25		25		25	25		25	25		5		5	5	190 OPp93
BR23			25								25		5				55 OPp93
BR24																	0 None
BR25	25	25									25						75 OPp93
BR26																	0 None
BR27																	0 WM
BR28																	0 None
BR29																	0 None
BR30																	0 None
BR31																	0 None
BR32		25			25	25	25								5	5	110 OPp93
BR33																	0 WM
BR34																	0 None
BR35																	0 None
BR36																	0 None
BR37																	0 None

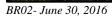
Appendix C Site Photos





BR01- June 29, 2016







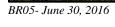
BR02- June 30, 2016

BR03- June 29, 2016





BR04- June 30, 2016







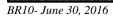
BR06- June 30, 2016

BR08- June 30, 2016











BR11- June 30, 2016

BR12- June 30, 2016

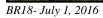






BR17- July 1, 2016







BR19- July 1, 2016

BR20- July 1, 2016

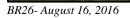






BR25- August 16, 2016







BR27- August 16, 2016

BR28- August 16, 2016





BR29- August 16, 2016



BR30- August 16, 2016



BR31- August 16, 2016

BR32- August 16, 2016





BR33- August 16, 2016



BR34- August 28, 2017



BR35- August 28, 2017

BR36- August 28, 2017

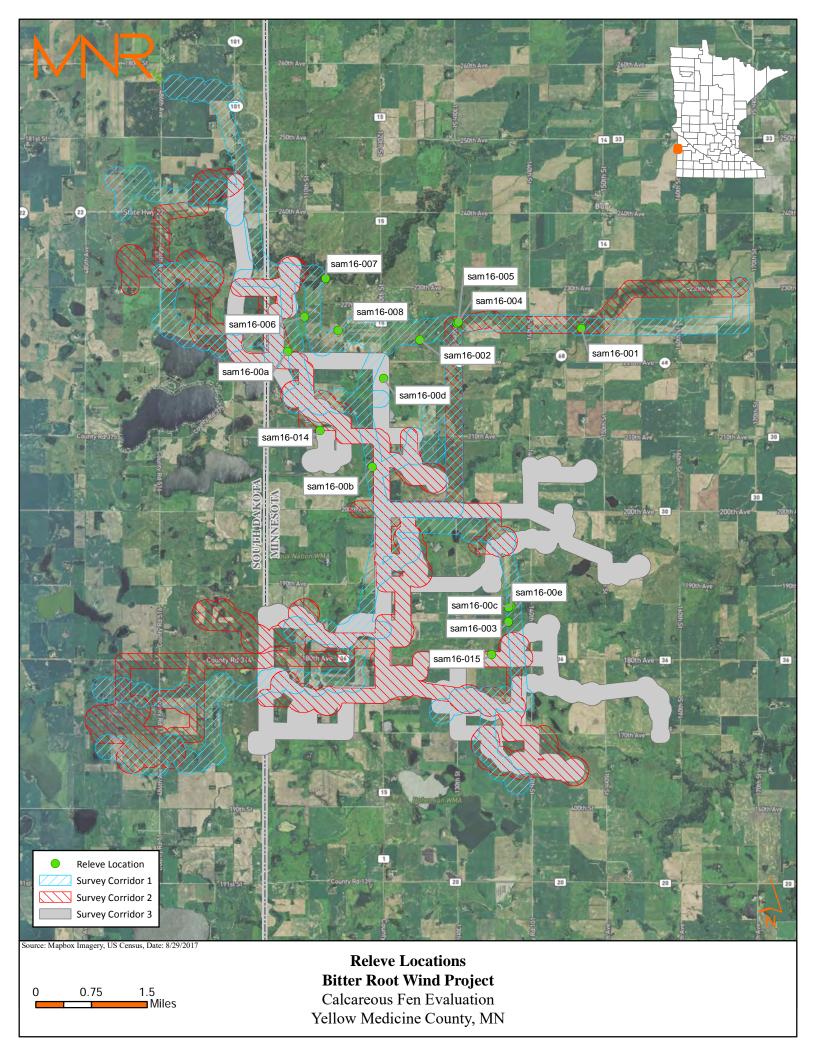


BR37- August 28, 2017

Appendix D Relevé Forms

Survey Date	Site	Native Plant Community Code	Description	Calcareous Fen Point Summary
6/29/2016	BR01	OPp93	Calc Fen - Prairie Extremely Rich Fen	80
7/1/2016	BR02	WMp73	Prairie Wet Meadow/Carr	0
7/1/2016	BR02	MRp93	Prairie Bulrush-Arrowhead Marsh	0
6/30/2016	BR03	WMp73	Prairie Wet Meadow/Carr	0
6/30/2016	BR04	WMs83	Southern Seepage Meadow/Carr	0
6/30/2016	BR05	None	Degraded Wet Meadow/Cattail Marsh	0
6/30/2016	BR06	None	Drainage swale dominated by reed canary grass	0
N/A	BR07	N/A	Not Evaluated	0
6/30/2016	BR08	WM	Wet Meadow Community - no type assigned	0
6/30/2016	BR09	None	Upland	0
6/30/2016	BR10	None	Upland	0
6/30/2016	BR11	None	Drainage Swale	0
6/30/2016	BR12	WMs83	Southern Seepage Meadow/Carr	25
6/30/2016	BR13	WMs83	Southern Seepage Meadow/Carr	25
6/30/2016	BR14	WM or OP	Wet Meadow or Calc Fen	50
7/1/2016	BR15	None	Upland	0
7/1/2016	BR16	None	Upland	0
7/1/2016	BR17	WMp73	Prairie Wet Meadow/Carr	0
7/1/2016	BR18	WMp73	Prairie Wet Meadow/Carr	0
7/1/2016	BR19	WMs83	Southern Seepage Meadow/Carr	25
7/1/2016	BR20	WMs83	Southern Seepage Meadow/Carr	25
7/1/2016	BR21	WMp73	Prairie Wet Meadow/Carr	0
7/1/2016	BR22	OPp93	Calc Fen - Prairie Extremely Rich Fen	190
7/1/2016	BR23	OPp93	Calc Fen - Prairie Extremely Rich Fen	55
8/16/2016	BR24	None	Upland	0
8/16/2016	BR25	OPp93	Calc Fen - Prairie Extremely Rich Fen	75
8/16/2016	BR26	None	Upland	0
8/16/2016	BR27	WM	Degraded Wet Meadow	0
8/16/2016	BR28	None	Upland/Degraded Wetland	0
8/16/2016	BR29	None	Upland	0
8/16/2016	BR30	None	Upland	0

8/16/2016	BR31	None	Upland	0
8/16/2016	BR32	OPp93	Calc Fen - Prairie Extremely Rich Fen	110
8/16/2016	BR33	WM	Wet Meadow Complex	0
8/28/2017	BR34	None	Drainage Swale	0
8/28/2017	BR35	None	Degraded Marsh	0
8/28/2017	BR36	None	Drainage Swale/Degraded Wetland	0
8/28/2017	BR37	WM	Degraded Wet Meadow	0



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MINNESOTA DEPARTMENT OF NATURAL RESOURCES RELEVE FORM
MNDNR. Division of Ecological & Water Resources, 500 Lafavette Road, Box 25, SLP

	Initial Scan	
	Entered	
	QC'd	
	Edited	
-	Cinal Casa	•

MUNICIALY, DIVISION OF ECOLOGICAL & WATER RESOURCE	35, 500 Larayette Road, Box 25, St. P	aui, iviiv 55155	QC'd
GENERAL INFORMATION	SITE DATA	SHEET	Edited Final Scan
DNR RELEVE #		• •	i iliai Stall
Surveyor(s): SM. 16-200	n - ▼		
Surveyor's Releve #: Samue - COL Surveyor's	eyor's Place Name: RE	1 //	
Institution: (M)BS (E)CS (N)HP (U)SFS (U)	of M (O)then MN2		
Purpose of Releve: (C)lassification (R)are specie	es habitat (M)onitoring (O)ther	T	
Revisit: (Y)es (N)o Original DNR Rele	eve #:		у
Date: 25 Month: JU 1 Year: 201			
MBS Site #: Ownership:		, , , , , , , , , , , , , , , , , , , ,	
EGETATION INFORMATION		- Alexander	
Vegetation Group: (WU) wooded upland (OU)			
NPC Code (Name): OP p 93()
NPC Ranking in Releve: Stand Typical of NPO; (Y)es (N)o (U)ncertai	t		•
If No, identify appropriate modifier: (N)atural distu		Y)oung stand (<40 yrs) (O)ther	
Releve Typical of Stand ((Y)es) (N)o	(/aman disturbands ()	. 10 - 18 010110 (170)10) (O/0101	
If No, identify appropriate modifier: (H)igher Quali	ity (L)ower Quality (C)anopy Ga	p (O)ther	
Plot Location in NPC: (F)ar from community boun			
OCATION INFORMATION		the first the second of the second second of the second se	
UTM: 708653 E)	Permanent N	larker: (N)o) (Y)es	
UTM: $\frac{78653}{955729}$ K (record in NAD83, Zoi	Marker Type	/ Placement:	
UTM Accuracy: meters	<u>, j</u>		
Location Source (G)PS (A)Ir photo (T)opo map	(L)iDAR (O)ther		
•	Township: h	N Range: Section:	_ QQRT: of QRT:
LOT INFORMATION			
Plot Size: $10 \text{ m} \times 10 \text{ m} = 100 \text{ m}^2$		0	
Elevation:ft. Slope: 45(°)	or(%) Aspect: _	(e.g., N, NE, etc.; LV for level)	
Topographic Context: (C)rest (U)pper (M)iddle	(L)ower (T)oe (F)lat (D)e	pression (?)uncertain	
OIL INFORMATION			
Litter Thickness: cm	(0)	Depth of Layer	Coarse Fragments
Litter Type: (L)eaves (N)eedles (G)rass ((U)ther	Top Bottom	\
Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull	(W)ormed mult	(1: 0 cm (>) cn	
Earthworms Present: (Y)es (N)o		2: cm (>) cn	
Earthworm Rapid Assessment Rank (low → heav	vy): (1) (2) (3) (4) (5) $\frac{v}{m}$ 3:cm (>)cn	
Depth to Semi-Permeable Layer: cm	ı	4:cm (>)cn	
Depth to Gray Colors or Redox Features:		그 5: cm (>) cn	
Drainage Class: (E)xcessively/Somewhat excessive		6:cm (>)cn	ı
(S)omewhat poorly (P)oorly (V)	ery poorly drained	7:cm (>)cn	
Height of Moss Hummocks:cm Sphagnum Cover:%		8:cm (>)cn	
Depth of Standing Water: (>) cm	,	A S = sand, LS = loamy sand, SL = sand	
pH of Surface Water: ±		sandy clay loam, CL = clay loam, SICL clay, C = clay, RO = rock, PE = peat,	= silty clay loam, SC = sandy clay, SIC = silty MP = mucky peat, MU = muck
·		if origin of peat or mucky peat is know	n, add suffix to two-letter code: -m = moss, -s
Average Depth to Bedrock: cm Exposed Rock: %		= sedge	•
Exposed Rock:% Rock Group: (F)elsic (M)afic (C)alcareous (S)an	ndstone (S)ioux quartzita (O)th	B Gr = gravel, Co = cobbles, St = stones,	•
Rock Type:	· · · · · · · · · · · · · · · · · · ·	c 0 = <15%, 1 = 15-35%, 2 = 35-60%, 3	= 60-90%, 4 = >90%, ? = unknown
General Soil Texture: (C)lay (L)oam (S)and (S	*\tta (D)t_ (M)t_ (D)t		
General Son Texture: (C)lay (L)oam (S)and (S	JIII (TOOCK (IVI)UCK (P)eat	1.	h 10
Remarks: Side More Hai	ere with ope	ious essentinge	. Dominated.
Dy your work cover (S. no	allulus J.S. Deubus	15 punyeus . Euro	red pools and
Wesk substate in nouts	Flowe Morrise	eart. Smill wal	beries run thin
tenture and anourable	Zwith chulle	It rabustine and	raked will
The westerman . S. Awtu.	S Lovereducion Vole	inters	
	-4-7-4-6-		
Basal Area & Tree Diameters - DBH Li	ist: (C)omplete (P)artial	Notes: 1000 11020	
Species L/D BA-1 BA-2 Ave. DBH (cn		4827/4832	
		, ,	
		-	
		•	

Releve-Wide DBH Statistics Prism Factor: ____ Min: ____ Max: ___ Median:_

Photos Taken: ((Y)es (N)o

Surveyor(s): SRM	Surveyor's Releve #: SHMIG-DOL Date: 6 28 16
County: VM	Surveyor's Place Name: BPØl

ID	c.s	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAME	REMARKS
		D1-2a		-		41-30				C1-26	
	r	A. FRUMILOSA			<u>).</u>	E, PERFOLIATUM			4	S. ALUTUS	
		8. 12762100	00		. ·	S. NOUSE-ANGLINE			0	C 0101/1/15C	
						S.GIGRATEA			2	C. HYSTERICINA J. NOBOTUS A. CIGALITER E. PALUSERIS	
						CMALLATA			2.	J. NOTOGILUS	
						L. ASPt12			2.	A. CIGALIER	
						E.MACULATUM		A	1.	E. PALUSTRIS	
				Ą	2,	To Yalauce		1	<u>D.</u>	C. PPRECENCILUS	
				r	Bjeria	T. YOLLUCA TOFFICIANALE			i.	G. STRINTE	
\vdash					1.	B. LEPTOPHILLIM			1	P. PRATENSIK	
					1.	B. Aquesisa			1.	H. JUBATUM	
					4.	VINLOPOPANILLA			1.	C. PHLLITA	
	<u> </u>				and the same of th	T. MUSTRIS			١.	J. BUDLEGI	
					Basic P	P. AURKA			2	S. PALLINUS C. URMANAGES	
					seeson .	P. AUSHOLUSA				C. Urannagers	
	i i				opino.	S. MEURISIS	•	4	1.	J. DUDLEYI .	
		:		X	1	S. LANCLOLATUM			2	C. HOURTILIC	
				1	4.	C. BULBOID		A		CALAMBGRACILL STRICTA	
	Ė				Γ.	C. MARILLATA	00		V.	MASPERITORIA	
H	<u> </u>				<u>.</u>	S. EDILDIDES			Г <u>. </u>	C. BIPHOTITUS	OP
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Life Form	<u>Height</u>	Cov	/er	Sociability	Reliability Code	Selected Remark Codes
B = broadleaf evergreen	8 >35m	Group	Species	5 = extensive mat	0 = varlety certain	DD = deąd
D = broadleaf deciduous	7 = 20-35m	C	5 75-100%	4 = small colonies, broken mat	1 = cf. var./subsp.	DY ≃ dying
È = needleleaf evergreen	6 = 10-20m	i	4 50-75%	3 = large group, many plants	2 = species certain	GE = germinating
G = graminoids	5 = 5-10m	р	3 25-50%	2 = small dense clumps	3 = species complex	SD = seedling
H ≂ forbs	4 = 2-5m	r	2 5-25%	1.= growing singly	4 = cf. species	SP = sprout (coppice)
L = lichens	3 = 0.5-2m	b	1-5%		5 = genus certain	FR = fruiting
M = mosses & liverworts	2 = 0.1 - 0.5 m	a ′	<1%		6 = cf. genus	OP = outside plot (<2m)
C = climbers	1 = 0-0.1m		Abundance		7 = unknown	## = specimen collection #
K = stem succulents			1 <5% cover, n	nany individuals		
F = floating-leaved			+ <5% cover, fe	ew (2-20) individuals		
S = submerged			r <5% cover, s	ingle		
X = epiphytes						
	Note: indicate tre	e canony h	v recording "Ca" to a	right of canopy layer life form/height cor	de (ex: "D6 - 9p. Ca")	

Note: indicate tree canopy by recording "Ca" to right of canopy layer life form/height code (ex: "D6-9p, Ca")

Himesola	
SELVENT SECURER	

MINNESOTA DEPARTMENT OF NATURAL RESOURCES RELEVE FORM

	Initial Scan	
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	Edited	
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MNDNR, Division of Ecological & Water Resources, 500 Lafayette Road, Bo	x 25, St. Paul, MN 55155	QC'd
CENERAL INFORMATION SITE I	DATA SHEET	Edited
	ATASTILLT	Final Scan
DNR RELEVE # Surveyor(s): SAMULE DOO		
Surveyor's Releve #: \$\bar{\bar{\bar{\bar{\bar{\bar{\bar{\bar	POAG	
Institution: (M)BS (E)CS (N)HP (U)SFS (U) of M (Q)thep (MARK)		
Purpose of Releve: (C)lassification (R)are species habitat (M)onitoring	(O)ther	
Revisit: (Y)es (N)o Original DNR Releve #:	(0)000	
Date: 29 Month: 1 U H Year: 2016 (e.g. 09 JUL 2004)		
MBS Site #: Ownership:		•
VEGETATION INFORMATION		
Vegetation Group: (WU) wooded upland (OU) open upland (WW) v	ooded wetland (OW) open wetland	
NPC Code (Name): <u>\\IM\\ \S\B\S(</u>) · · · · · · · · · · · · · · · · · · ·
NPC Ranking in Releve:		
Stand Typical of NPC: (Y)es (N)o (U)ncertain		
If No, identify appropriate modifier: (N)atural disturbance (H)uman distur	pance (Y)oung stand (<40 yrs) (O)ther	
Releve Typical of Stand: (Y)es (N)o	0 (0)	
If No, identify appropriate modifier: (H)igher Quality (L)ower Quality (C):		
Plot Location in NPC: (F)ar from community boundary (M)oderately far f	rom boundary (С)lose to boundary (Е)cotoпаl	
OCATION INFORMATION		
UTM: 105 42 E (record in NAD83, Zone 15) Perm. Market	anent Marker: (N)o (Y)es	
	r Type / Placement:	
- military - material		
Location Source: (G)PS (A)ir photo (T)opo map (L)iDAR (O)ther County: \(\text{County} \text{ MeD(L)UL} \) Township:	N Pango: Soction:	OORT: -4 ORT:
PLOT INFORMATION	N Nange: Section	GONT: OF GRT:
Plot Size: $10 \text{ m} \times 10 \text{ m} = 100 \text{ m}^2$		
Elevation:ft. Slope:(°) or(%) As	anati / NAIS / NAC / N	
Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)	ot (D)	
1 opographic context: (C) lest (C)pper (W) iddle (L)ower (1)oe (1)		
	at (D)cpression (:)uncertain	
SOIL INFORMATION	ac (D)spression (:)uncertain	
SOIL INFORMATION Litter Thickness:cm		Coarse Fragments
COIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther	Depth of Layer	Coarse Fragments Texture ^A Type ^B Volume ^C
COIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm		Texture ^A Type ^B Volume ^C
COIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o	Depth of Layer	Texture ^A Type ^B Volume ^C
COIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3)	Depth of Layer Top Bottom	Texture ^A Type ^B Volume ^C
COIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) Depth to Semi-Permeable Layer: cm	Depth of Layer Top Bottom	Texture ^A Type ^B Volume ^C
COIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Type: (M)or (M)oder (P)raine mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) Depth to Semi-Permeable Layer: cm Depth to Gray Colors or Redox Features: cm	(4) (5) Pepth of Layer Top Bottom	Texture ^A Type ^B Volume ^C
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Basal Area	a & Tree Di	ameters			DBH List: (C)omplete (P)artial
Species	L/D	BA-1	BA-2	Ave.	DBH (cm)
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Prism Factor: ____

Releve-Wide DBH Statistics Min: ____ Max: ____ Median:__

Photos Taken: (Y)es (N)o

DNR	REL	.EVE	#
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Surveyor(s): S.Milburn	Surveyor's Releve #:Snylla sale Date: 6 29 16
County: Yestan Mexicinit	Surveyor's Place Name: 🔀 🛴

Б	c.s	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAME	REMARK
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					1.	E. PERFOLINTUM			3. 2.	S. PALLIBUS	
					r	L. LOCSHIM.		1		S. PALLIOUS	<u> </u>
				L	+	E. LEPTORAYLLUM		<u> </u>	1.	J. BALTICUS	
					7.	S. EURYCARPUM		<u> </u>	<u>4</u> .	C. PELITTH	
	•				1.	S. EURYCARPUM E. MAGULATUM			1.	S. PECTINATA	
					1.	L. ASPER			ulp.	P. APUNDINANCEN	
	•				4-	A. CHLIMPHISIS		<u> </u>	1.	E. BENTHOODOON	-
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				5	1000	PHYDROPIPHE			1.	J. DUDLEY!	
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		Copply south fra	W OP	L	<u> .</u>	F. VIELDINIANA VERBUSA MASTATA	88	<u> </u>	↓ ·		

Life Form	Height	Co	ver	Sociability	Reliability Code	Selected Remark Codes				
B = broadleaf evergreen	8 >35m	Group	Species	5 = extensive mat	0 = variety certain	DD ≔ deąd				
D = broadleaf deciduous	7 = 20-35m	C	5 75-100%	4 = small colonies, broken mat	1 = cf. var./subsp.	DY = dying				
E = needleleaf evergreen	6 = 10-20m	i	4 50-75%	3 = large group, many plants	2 = species certain	GE = germinating				
G = graminoids	5 = 5-10m	р	3 25-50%	2 = small dense clumps	3 = species complex	SD = seedling				
H = forbs	4 = 2.5 m	Г	2 5-25%	1.= growing singly	4 = cf. species	SP = sprout (coppice)				
L = lichens	3 = 0.5-2m	b	1-5%		5 = genus certain	FR = fruiting				
M = mosses & liverworts	2 = 0.1 - 0.5 m	а	<1%		6 = cf. genus	OP = outside plot (<2m)				
C = climbers	1 = 0-0.1m		<u>Abundance</u>		7 = unknown	## = specimen collection #				
K = stem succulents		1 <5% cover, many individuals								
F = floating-leaved		+ <5% cover, few (2-20) individuals								
S = submerged			r <5% cover, s	single						
X = epiphytes				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	d- (!!DE O- Co!!)					
	Note: indicate tre	ee canopy b	y recording "Ca" to	right of canopy layer life form/height coo	ie (ex. υσ-sp, Ca)					

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- Ulinosola	Initial Scan
MINNESOTA DEPARTMENT OF NATURAL RESOURCES RELEVE FORM	Entered
MNDNR, Division of Ecological & Water Resources, 500 Lafayette Road, Box 25, St. Paul, MN 55155	ОС,4
CENERAL INFORMATION SITE DATA SHEET	Edited
GENERAL IN ONWATION	Final Scan
DNR RELEVE #	
Surveyor(s): S.M. Laural	
Surveyor's Releve #: State Surveyor's Place Name: BEN	
Institution: (M)BS (E)CS (N)HP (U)SFS (U) of M (O)then MUSS	
Purpose of Releve: (C)lassification (R)are species habitat (M)onitoring (O)ther	
Revisit: (Y)es (N)o Original DNR Releve #:	
Date: 38 Month: 12 Year: 20 1 6 (e.g. 09 JUL 2004)	
MBS Site #: Ownership:	•
·	* v.,
VEGETATION INFORMATION	AND CONTRACTOR OF THE CONTRACT
Vegetation Group: (WU) wooded upland (OU) open upland (WW) wooded wetland (OW) open	wetland
NPC Code (Name): (See Notes Whord	The second secon
NPC Ranking in Releve:	
Stand Typical of NPC: (Y)es (N)o (U)ncertain	
If No, identify appropriate modifier: (N)atural disturbance (H)uman disturbance (Y)oung stand (<40 yrs)	(O)ther
Releve Typical of Stand: (Y)es (N)o	
If No, identify appropriate modifier: (H)Igher Quality (L)ower Quality (C)anopy Gap (O)ther	
Plot Location in NPC: (F)ar from community boundary (M)oderately far from boundary (C)lose to bou	ndary (E)cotonal
The state of the s	and the formal party.
LOCATION INFORMATION	
UTM: $\frac{1}{4}$ Permanent Marker: $\frac{1}{4}$ $$	
Marker Type / Placement:	
UTW Accuracy: meters	
Location Source: (G)PS (A)ir photo (T)opo map (L)iDAR (O)ther	
County: \[ELLOW MEDICINE Township: N Range:N	_ Section: QQRT: of QRT
PLOT INFORMATION	
Plot Size: $\frac{1}{2}$ m x $\frac{1}{2}$ m = $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ m ²	
Elevation:ft. Slope:(°) or <u>GO</u> (%) Aspect: <u>MW</u> (e.g., N, NE, e	to: V for level)
Topographic Context: (C)rest (U)pper (M)Iddle (L)ower (T)oe (F)lat (D)epression (?)uncerta	
SOIL INFORMATION	
Litter Thickness: cm	Depth of Layer Coarse Fra
Litter Type: (L)eaves (N)eedles (G)rass (O)ther	
Tidilida Tillokileaa, oli	pp Bottom Texture ^A Type ^B V
for the state of t	<u>)</u> cm (>) cm
Earthworms Present: (Y)es (N)o	_cm (>)cm
	_cm (>)cm
Depth to Semi-Permeable Layer: cm	_cm (>) cm
Depth to Gray Colors or Redox Features: cm 그것 5:	_cm (>)cm
B. L. O. (5) (6)	_cm (>)cm
(S) amount a cort (P) corts (A) and accorded declared	
Height of Moss Hummocks:cm	_cm (>)cm

		Depth	of Layer		Coarse I	ragments
	•	Top	Bottom	<u>Texture</u> ^A	Type ^B	<u>Volume</u> ^c
	(1:	0 cm	(>)cm			
	2:	cm	(>) cm			
8	3:	cm	(>)cm			
ay	4:	cm	(>) cm			
^	5:	cm	(>) cm			
Soil Layers	6:	cm	(>) cm			
,	7:	cm	(>) cm			
	(8:	cm	(>) cm			

A S = sand, LS = loamy sand, SL = sandy loam, L= loam, SIL = silt loam, SCL = sandy clay loam, CL = clay loam, SICL = silty clay loam, SC = sandy clay, SIC = silty clay, C = clay, RO = rock, PE = peat, MP = mucky peat, MU = muck

If origin of peat or mucky peat is known, add suffix to two-letter code: -m = moss, -s = sedge

- ^B Gr = gravel, Co = cobbles, St = stones, Bo = boulders
- $^{\rm C}$ 0 = <15%, 1 = 15-35%, 2 = 35-60%, 3 = 60-90%, 4 = >90%, ? = unknown

4876-4881

with exposed proches organis sols at apay of tentes a butre nevy buse (minera Notes: Meets point criterion for Culetens Basal Area & Tree Diameters
Species L/D BA-1 DBH List: (C)omplete (P)artial but more representative of a seepage BA-2 Ave. DBH (cm)

> Releve-Wide DBH Statistics Min: ____ Max: ___ Median:_

Sphagnum Cover: ____ %

Exposed Rock: %

Rock Type:

Prism Factor: ___

Depth of Standing Water: (>) ____ cm pH of Surface Water: ____ ± __

Average Depth to Bedrock: ____ cm

Rock Group: (F)elsic (M)afic (C)alcareous (S)andstone (S)ioux quartzite (O)ther

General Soil Texture: (C)lay (L)oam (S)and (S)ilt (R)ock (M)uck (P)eat

Photos Taken: (Y)es (N)o

Revised Juna 2013

Surveyor(s): S.M. Ibura Surveyor's Releve #: Smm16-003 Date: June 36, 2016

County: Yeuran Metricius Surveyor's Place Name: BOLG

gi	0.0	SPECIES NAME	REMARKS	ID	Ce	SPECIES NAME	REMARKS	ID	CS	SPECIES NAME	REMARKS
	0.5		REMARKS		0.3	HI-3r	INLIVIATOR	-	0.0	G1-36	TEMUTO
H		D1-3r	ļ. —	-		41-26		-	3	S. Puntathis	· ,
\vdash	2.	Comm storowierph Ametyphafrustreases		-	1.	S. CAMBRENEIS		-	3.	S. Pungens	
\vdash	•	AMERINATIVITIES		·	4-	T. DRSYCKE PUM		-		S. PALLIOUS	
-		۸. ۵			4.	A. Incheronta		-	-	CALAMALESTIS STRILT	4
	•	C1-Zu		-	1.	S. Collaboration		\vdash	8	J. HODDSJS	
	ŗ.	P. VITACED	ļ	-	1.	E.WA WLASOM		-	1.	F. EPANIADAPOON	
		•	1	-	1.	V MEDROPHYLLA		\vdash	1.	P. AROUNTLUNCHA	-
	•_	•	<u> </u>	<u> </u>	1	LASPUR		-	1.	G. STAINTH	
				\perp	1.	S LHNCEDERTUM	ļ ·	<u> </u>	1	J. BUNLEYI	-
				\perp	1.	Zinuren		-	11.	C. PELLITA	
Ш				\perp	Į.	1. CAPENSIS		_	4		6.0
	•			\perp	1.	V. HASTATA		<u> </u>	<u> </u>	G. GRANNIS	OP
Ш					1.	S. HOUGISIS		<u> </u>	∐.	S. PECTINATA	
				L	1.	E.LLOWORNYLLIM		<u> </u>	3	CARLY STRAKTA	<u> </u>
					1.	TICHTHOGRE		_		C. HUISTERFICING	
						A ACTEMISHEDLIA		_	+:	C. YULPHUCKEN	
				_	4.	LIMMERALLANDS		L	<u> </u> .		
	٠.				١.	EUPHOREIA ESCULLIVIUS		L	<u> </u>		
	•				april.	T. REPENS		· L	<u> </u>		
	<u> </u>				٧.	El Proponetian		L	<u>l </u>	,	
				· L_	₩.	POTENTILLA AUSERINE			<u> </u>		
				Ŀ	١.	LOBELIA EALMII		L	<u> </u>		
					4	HELENIUM ANTOMINA	UE -		<u> </u>		
					1	Agaliais temorfolia			<u> </u>		
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		L			<u> </u>	<u> </u>		L	<u> </u>		

Life Form Height		Cov	/er	Sociability	Reliability Code	Selected Remark Codes			
B = broadleaf evergreen	8 >35m	Group	Species	5 = extensive mat	0 = variety certain	DD = deąd			
D = broadleaf deciduous	7 = 20-35m	ć	5 75-100%	4 = small colonies, broken mat	1 = cf. var./subsp.	DY = dying			
E = needleleaf evergreen	6 = 10-20m	i	4 50-75%	3 = large group, many plants	2 = species certain	GE = germinating			
G = graminoids	5 = 5-10m	g	3 25-50%	2 = small dense clumps	3 = species complex	SD = seedling			
H ≃ forbs	4 = 2-5m	ř	2 5-25%	1.= growing singly	4 = cf. species	SP = sprout (coppice)			
L = lichens	3 = 0.5-2m	b	1-5%		5 = genus certain	FR = fruiting			
M = mosses & liverworts	2 = 0.1 - 0.5 m	a	<1%		6 = cf. genus	OP = outside plot (<2m)			
C = climbers	1 = 0-0.1m		Abundance		7 = unknown	## = specimen collection #			
K = stem succulents	•		1 <5% cover, m	any individuals		•			
F = floating-leaved			+ <5% cover, fe	w (2-20) individuals					
S = submerged			r <5% cover, si	ngle					
X = epiphytes									
	Alakar Indianta teo	a across h	u recording "Ca" to r	ight of canony layor life form/height car	la (av. "D6 - On Ca")				

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Minnesota	Initial Scan
MINNESOTA DEPARTMENT OF NATURAL RESOURCES RELEVE FORM	Entered
MNDNR, Division of Ecological & Water Resources, 500 Lafayette Road, Box 25, St. Paul,	
GENERAL INFORMATION SITE DATA SH	HEET Edited
DNR RELEVE #	rinai ocan
Surveyor(s): Billingur	
Surveyor's Releve #: 3800 - 2004 Surveyor's Place Name: BP# 2	all a
Purpose of Releve: (©)lassification (R)are species habitat (M)onitoring (O)ther	
Revisit: (Y)es (N)o Original DNR Releve #:	
Date: 30 Month: JUJ Year: 20 110 (e.g. 09 JUL 2004)	
MBS Site #: Ownership:	
VEGETATION INFORMATION	Marie of the second sec
Vegetation Group: (WU) wooded upland (OU) open upland (WW) wooded wetlar NPC Code (Name): WM p 13 (and ((OW) open wetland
NPC Ranking in Releve:	
Stand Typical of NPC: (Y)es (N)o (U)ncertain	and the state of t
If No, identify appropriate modifier: (N)atural disturbance (H)uman disturbance (Y)ou Releve Typical of Stand: (Y)es (N)o	ung stand (<40 yrs) (U)ther
If No, identify appropriate modifier: (H)igher Quality (L)ower Quality (C)anopy Gap (C)	(O)ther
Plot Location in NPC: (F)ar from community boundary (M)oderately far from boundary	
LOCATION INFORMATION,	y (O)lose to southary (E)cotonar
UTM: Permanent Mark	ker: (N) (Y)es Placement:
Location Source: (G)PS (A)ir photo (T)opo map (L)iDAR (O)ther	
County: VILLOU MENICIPE Township: N F	Range: Section: QQRT: of QRT:
Location Source: (G)PS) (A)ir photo (T)opo map (L)iDAR (O)ther N F	Range: Section: QQRT: of QRT:
PLOT INFORMATION	Range: Section: QQRT: of QRT:
PLOT INFORMATION Plot Size: $10 \text{ m} \times 10 \text{ m} = 100 \text{ m}^2$	
PLOT INFORMATION Plot Size: $10 \text{ m} \times 10 \text{ m} = 10 \text{ m}^2$ Elevation:ft. Slope:(°) or(%) Aspect: 10 m^2	
PLOT INFORMATION Plot Size: \(\to \) m x \(\to \) m = \(\to \) m ² Elevation: \((\to \) ft. \((\to \) lope: \((\to \	
PLOT INFORMATION Plot Size: \(\to \) m x \(\to \) m = \(\to \) m ² Elevation: ft. Slope:(°) or(%) Aspect: \(\to \) Vographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION	(e.g., N, NE, etc.; LV for level) ssion (?)uncertain
PLOT INFORMATION Plot Size: \(\to \) m \(\times \) \(\to \) m = \(\to \) \(\to \) m^2 Elevation: \(\to \) ft. Slope: \(\to \) or \(\to \) (%) Aspect: \(\to \) \(\to \) Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres	(e.g., N, NE, etc.; LV for level) ssion (?)uncertain Depth of Layer Coarse Fragmer
PLOT INFORMATION Plot Size: \(\to \) m x \(\to \) m = \(\to \) m ² Elevation: ft. Slope:(°) or(%) Aspect: \(\to \) V Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm	(e.g., N, NE, etc.; LV for level) ssion (?)uncertain Depth of Layer Coarse Fragmer Top Bottom Texture Type Volume
PLOT INFORMATION Plot Size: \(\(\triangle \) m x \(\triangle \) m = \(\triangle \) m ² Elevation: ft. Slope:(°) or(%) Aspect: \(\triangle \) V Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull	(e.g., N, NE, etc.; LV for level) ssion (?)uncertain Depth of Layer Coarse Fragmer Top Bottom Texture Type Volume
PLOT INFORMATION Plot Size: \(\(\triangle \) m \times \(\triangle \) m = \(\triangle \) m ² Elevation: ft. Slope: (°) or (%) Aspect: \(\triangle \) V Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o	(e.g., N, NE, etc.; LV for level) sssion (?)uncertain Depth of Layer Coarse Fragmer Top Bottom Texture Type Volume 1: 0 cm (>) cm Coarse Coa
PLOT INFORMATION Plot Size: \(\(\triangle \) m x \(\triangle \) m = \(\triangle \) m² Elevation: ft. Slope:(°) or(%) Aspect: \(\triangle \) V Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) (4) (5)	(e.g., N, NE, etc.; LV for level) sssion (?)uncertain Depth of Layer Coarse Fragmer Top Bottom Texture Type Volume 1: 0 cm (>) cm Coarse Coa
PLOT INFORMATION Plot Size: \(\(\triangle \) m x \(\triangle \) m = \(\triangle \) m² Elevation: ft. Slope:(°) or(%) Aspect: \(\triangle \) V Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (tow → heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: cm	(e.g., N, NE, etc.; LV for level)
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PLOT INFORMATION Plot Size: \(\(\triangle \) m x \(\triangle \) m = \(\triangle \) m² Elevation: \(\triangle \) m x \(\triangle \) m = \(\triangle \) or \(\triangle \) (%) Aspect: \(\triangle \) Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: \(\triangle \) cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: \(\triangle \) cm Humus Thickness: \(\triangle \) cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: \(\triangle \) cm Depth to Gray Colors or Redox Features: \(\triangle \) cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well	(e.g., N, NE, etc.; LV for level)
PLOT INFORMATION Plot Size: \(\(\triangle \) m x \(\triangle \) m = \(\triangle \) or \(\triangle \) (%) Aspect: \(\triangle \) Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: \(\triangle \) cm \(\triangle \) Litter Thickness: \(\triangle \) cm \(\triangle \) Humus Thickness: \(\triangle \) cm \(\triangle \) Humus Type: (L)eaves (N)edles (G)rass (O)ther \(\triangle \) Humus Thickness: \(\triangle \) cm \(\triangle \) Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low \(\triangle \) heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: \(\triangle \) cm Depth to Gray Colors or Redox Features: \(\triangle \) cm Drainage Class: (\(\triangle \))xcessively/Somewhat excessively (W)ell (M)oderately well (S)omewhat poorly (P)corly (V)ery poorly drained	(e.g., N, NE, etc.; LV for level)
PLOT INFORMATION Plot Size: \(\(\triangle \) m x \(\triangle \) m = \(\triangle \) or \(\triangle \) (%) Aspect: \(\triangle \) Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: \(\triangle \) cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther \(\triangle \) Humus Thickness: \(\triangle \) cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low \(\triangle \) heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: \(\triangle \) cm Depth to Gray Colors or Redox Features: \(\triangle \) cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well (S)omewhat poorly (P)corly (V)ery poorly drained Height of Moss Hummocks: \(\triangle \) cm	(e.g., N, NE, etc.; LV for level)
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PLOT INFORMATION Plot Size: \(\(\triangle \) m x \(\triangle \) m = \(\triangle \) or \(\triangle \) (%) Aspect: \(\triangle \) Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: \(\triangle \) cm \(\triangle \) Litter Type: (L)eaves (N)eedles (G)rass (O)ther \(\triangle \) Humus Thickness: \(\triangle \) cm \(\triangle \) Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (flow \(\triangle \) heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: \(\triangle \) cm Depth to Gray Colors or Redox Features: \(\triangle \) cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well (S)omewhat poorly (P)oorly (V)ery poorly drained Height of Moss Hummocks: \(\triangle \) cm Sphagnum Cover: \(\triangle \) cm Depth of Standing Water: (>) \(\triangle \) cm	(e.g., N, NE, etc.; LV for level)
PLOT INFORMATION Plot Size: \(\) m x \(\) m = \(\) m^2 Elevation: \(\) ft. Slope: \((^\circ)\) or \((^\circ)\) (%) Aspect: \(\) Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: \(\) cm \(\) Litter Thickness: \(\) cm \(\) Litter Thickness: \(\) cm \(\) Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: \(\) cm \(\) Humus Thickness: \(\) cm \(\) Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low \(\) heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: \(\) cm Depth to Gray Colors or Redox Features: \(\) cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well \(\) Somewhat poorly (P)oorly (V)ery poorly drained Height of Moss Hummocks: \(\) cm Sphagnum Cover: \(\) % Depth of Standing Water: (>) \(\) cm Ph of Surface Water: \(\) cm	Depth of Layer Coarse Fragmen
PLOT INFORMATION Plot Size: \(\(\triangle \) m x \(\triangle \) m = \(\triangle \) or \(\triangle \) (%) Aspect: \(\triangle \) Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: \(\triangle \) cm \(\triangle \) Litter Thickness: \(\triangle \) cm \(\triangle \) Humus Thickness: \(\triangle \) cm \(\triangle \) (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low \(\triangle \) heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: \(\triangle \) cm Depth to Gray Colors or Redox Features: \(\triangle \) cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well (S)omewhat poorly (P)oorly (V)ery poorly drained Height of Moss Hummocks: \(\triangle \) cm Sphagnum Cover: \(\triangle \) cm Depth of Standing Water: (>) \(\triangle \) cm Ph of Surface Water: \(\triangle \) cm Exposed Rock: \(\triangle \) m Exposed Rock: \(\triangle \) cm	Ce.g., N, NE, etc.; LV for level
PLOT INFORMATION Plot Size: \(\to \) m x \(\to \) m = \(\to \) or \(\to \) (%) Aspect: \(\to \) Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm HumusType: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low \(\to \) heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: cm Depth to Gray Colors or Redox Features: cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well (S)omewhat poorly (P)oorly (V)ery poorly drained Height of Moss Hummocks: cm Sphagnum Cover: % Depth of Standing Water: (>) cm PH of Surface Water: tm Average Depth to Bedrock: cm	Depth of Layer Coarse Fragmen
PLOT INFORMATION Plot Size: \(\) m x \(\) m = \(\) m² Elevation: ft. Slope:(°) or(%) Aspect: \(\) Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epres SOIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low \(\) heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: cm Depth to Gray Colors or Redox Features: cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well	Ce.g., N, NE, etc.; LV for level
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Basal Area	a & Tree Di	ameters	DBH List: (C)omplete (P)artial			
Species	L/D	BA-1	BA-2	Ave.	DBH (cm)	
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Prism Factor: _

Notes:

Releve-W	ide DBH St	atistics
Min:	Max:	Median:_

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Surveyor(s): S.Milborn	Surveyor's Releve #: 55006-004 Date: 6	30/16
County: Vellow MEDICINE	Surveyor's Place Name: BE\$2_	· • • • • • • • • • • • • • • • • • • •

<u> </u>	S SPECIES NAME	REMARKS	1D	Cs	SPECIES NAME	REMARKS	ID	c s	SPECIES NAME	REMARKS
ID C.	1		F	0.3		TACINAL TAC	F	0.0	C1-36	
	01-39	<u> </u>	-	<u> </u>	41-3r		\vdash			
7	C. STOLOHIFTER		-	d.	ZIAVILLA			1.	J. Brenzus	
<u> </u>			-	<i> [.</i>	A: CHUNIBIDUM		-	4.	C. PELLITA	
<u>.</u>			<u> </u>	+	P. CRISPUS		-	2	COLAMBOREMS STRICTA	
			<u> </u>	1	T. CANADENSIS		-	2	S. PALLINUS	
<u></u>			_	1.	P. Avelea		-	3.	A. GIGHTHEN	
				1.	A. CHNHOENSIS		-	1.	P. PRATEIS	
			L	2.	G. LEPIDSTA		-	1.	D. HIRTUM	<u> </u>
				1.	C. MACULARA			١.	C. PRHEGORCIUS	<u> </u>
				1.	S. LANCECUMENT			١.	G. STELMA	
Π.			L	1.	S. CATINOMISIS			1.	E. EPYTHEOPOON	
Π.			L	1.	T. DASYCKROUM		_	1.	H. JUSKYUM	
Π.					ZIANTER	0P		1.	J. DUNLEY 1	
Π.					(1.			u je	C. VUEDINGIDER	
				١.			L	1	E. compressa	
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Group n c n i p	Species 5 75-100% 4 50-75% 3 25-50% 2 5-25%	5 = extensive mat 4 = small colonies, broken mat 3 = large group, many plants 2 = small dense clumps	0 = variety certain 1 = cf. var./subsp. 2 = species certain 3 = species complex	DD = dead DY = dying GE = germinating SD = seedling
n b 5m a	1-5% <1% <u>Abundance</u> 1 <5% cover, n + <5% cover, f	ew (2-20) individuals	4 = cf. species 5 = genus certain 6 = cf. genus 7 = unknown	SP = sprout (coppice) FR = fruiting OP = outside plot (<2m) ## = specimen collection
1		Abundance 1 <5% cover, r + <5% cover, f r <5% cover, s	Abundance 1 <5% cover, many individuals + <5% cover, few (2-20) individuals r <5% cover, single	Abundance 7 = unknown 1 <5% cover, many individuals + <5% cover, few (2-20) individuals

Hinnesola	
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OFFICENCES OF MATERIAL RESOURCES	

MINNESOTA DEPARTMENT OF NATURAL RESOURCES RELEVE FORM

	Initial Scan	
	Entered	
	- ac.q	
	Edited	
-	Final Scan	

MAL N	INDNR, Division of E	Ecological & V	Vater Resources, 500 L	afayette Road, Box 25, St.	Paul, MN 55	5155	- OC.9	
MINUMENTO ALLE	NEODMATION			SITE DATA	SHFFT	-		
DNR REI	NFORMATION			0,,,,,,,,,	077227		Final Scan	<u>.</u>
Surveyor	s): 8.M.	herel		•				
			క్ర Surveyor's	Place Name: 1312-	12 Par	+2		•
Institution	: (M)BS (E)CS	(N)HP (I	U)SFS (U) of M ((O)ther Muse				
Purpose o	f Releve: (C)la	ssification	(R)are species habit	at (M)onitoring (O)the	ег			
Revisit:	(Y)es ((N)o)	Original	DNR Releve #:					
			ar: <u>2014</u> (
	N INFORMATI		-		·	the state of the s		
Vegetation	n Group: (WU)) wooded up	land (OU) open ud	oland (WW) wooded v	wetland ((OW) open wetland		
NPC Code	(Name): <u>M</u>	1913	3 1 ((Commence of the Commence of th)
NPC Rank	ing in Releve;	and the second second						
Stand Typ	ical of NPC:((Y)es /(N)c	(U)ncertain	/II) P. (I	00 .			
	oentity appropnate pical of Stand:			(H)uman disturbance	(Y)oung sta	and (<40 yrs) (O)ther		
If No. is	dentify appropriate	modifier: (H)igher Quality (L)o	wer Quality (C)anopy G	Sap (O)ther	•		
						lose to boundary, (E)cotona		
LOGATION	WEODMATION	,		, ,	ران المان الما معمد المان الم	The same of the sa		
UTM:	10599	/El.	ord in NAD83, Zone 15)	Permanent	Marker: ((N)ø (Y)es		
-	+ 100 April	← ' '	ora in IVAD83, Zone 15)	Marker Type	e / Placen	nent:		
UTM Accu	racy:	meters	(T) (L):-	(0):				
Location S	ource: (G)PS)(A)ir photo Mのいいだ	(T)opo map (L)iE	DAR (U)ther	N Pana	e: Section:	OORT	of ORT
	•	CMEENS		Township	_IN INALIG	e Section	_ ५५٢	or QR1
PLOT INFOR	TD m x 1.6	N m = 1	MA m ²					
				(%) Aspect:	(e.	g., N, NE, etc.; LV for level)		
				wer (T)oe (F)lat (D)				
SOIL INFOR	MATION			Manager Control	the property of the second			
Litter Thic		n				Depth of Layer		Coarse Fragments
			s (G)rass (O)ther		-	Top Bottom	Texture ^A	
	ickness: sTvpe: (M)or (P)rairie mull (W)orn	ned mull		(1: 0 cm (>) ci		
	ns Present: (\					2: cm (>) ci		
Earthworn	n Ranid Asses	amant Da	nk anu - homes (*	1) (2) (3) (4) (10. (5)		
				') (=) (0) (1) (3:cm (>)cı		· ·
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Basai Area	i & Tree Di	ameters			DBH List: (C)omplete (P)artial
Species	L/D	BA-1	BA-2	Ave.	DBH (cm)

Prism Factor: ____

Releve-Wide DBH Statistics

Photos Taken: (Y)es (N)o

Revised June 2013

Surveyor(s): S.M. Lyva	Surveyor's Releve #: SAMIL-DOS Date: 63016
County: Yellow Medicine	Surveyor's Place Name: BLB2 prt 2

ID	c.s	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAME	REMARKS
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Life Form	Height	Cov	ver	Sociability	Reliability Code	Selected Remark Codes
B = broadleaf evergreen	8 >35m	Group	Species	5 = extensive mat	0 = variety certain	DD = dead
D = broadleaf deciduous	7 = 20-35m	Ċ	5 75-100%	4 = small colonies, broken mat	1 = cf. var./subsp.	DY = dying
E = needleleaf evergreen	6 = 10-20m	i	4 50-75%	3 = large group, many plants	2 = species certain	GE = germinating
G = graminoids	5 = 5-10m	р	3 25-50%	2 = small dense clumps	3 = species complex	SD = seedling
H = forbs	4 = 2-5m	ř	2 5-25%	1 = growing singly	4 = cf. species	SP = sprout (coppice)
L = lichens	3 = 0.5-2m	b	1-5%		5 = genus certain	FR = fruiting
M = mosses & liverworts	2 = 0.1- 0.5m	a	<1%		6 = cf. genus	OP = outside plot (<2m)
C = climbers	1 = 0-0.1m		Abundance	•	7 = unknown	## = specimen collection #
K = stem succulents			1 <5% cover, n	nany individuals		
F = floating-leaved			+ <5% cover, fe	ew (2-20) individuals		
S = submerged			r <5% cover, s	ingle		
X = epiphytes						
	Note: indicate tre	e canopy b	y recording "Ca" to	right of canopy layer life form/height coo	de (ex: "D6 - 9p, Ca")	

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Himasol3	Initial Scan
MINNESOTA DEPARTMENT OF NATURAL RESOURCES RELEVE FORM	M Entered
MNDNR, Division of Ecological & Water Resources, 500 Lafayette Road, Box 25, St.	
GENERAL INFORMATION SITE DATA	SHEET Edited
DNR RELEVE #	Final Scan
Surveyor(s):	
Surveyor's Releve #: Samto Soca Surveyor's Place Name:	l Novel
Institution: (M)BS (E)CS (N)HP (U)SFS (U) of M (O)ther PMNP	
Purpose of Releve: (C) lassification (R) are species habitat (M) onitioning (O) the	On
Revisit: (Y)es (N)o Original DNR Releve #:	ы
Date: 01 Month: 3 1 Year: 2014 (e.g. 09 JUL 2004)	
MBS Site #: Ownership:	
VEGETATION INFORMATION	
Vegetation Group: (WU) wooded upland (OU) open upland (WW) wooded w	(OW)
NPC Code (Name): 14 11 3 ((()) wooded uplant () object applied (()) wooded \(\)	
NPC Ranking in Releve:	
Stand Typical of NPC: (Y)es (N)o (U)ncertain	
If No. identify appropriate modifier: (N)atural disturbance (H)uman disturbance	(Y)oung stand (<40 yrs) (O)ther
Releve Typical of Stand: (Y)es (N)o	(1) build static (40 yis) (O)that
If No, identify appropriate modifier: (H)igher Quality (L)ower Quality (C)anopy G	Sap (O)ther
Plot Location in NPC: (F)ar from community boundary (M)oderately far from boundary	
LOCATION INFORMATION	- Joseph Community (L)outonal
	Markek: (N)o (Y)es
	e / Placement:
UTM Accuracy: meters	e / Flacement.
Location Source: (G)PS (A)ir photo (T)opo map (L)iDAR (O)ther County: Township:	N Range: Section: OORT: of ORT:
PLOT INFORMATION	Transfer occion qqrr or qrr
Plot Size: $16 \text{ m} \times 16 \text{ m} = 100 \text{ m}^2$	
Elevation:ft. Slope:(°) or(%) Aspect:	1 1/2
Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)	pepression (?)uncertain
SOIL INFORMATION	- and the state of
Litter Thickness: cm	Depth of Laver Coarse Fragments
Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther	Depth of Layer Coarse Fragments Ton Rottom Toyluro ^A Tugo ^B Volume ^C
Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm	Top Bottom Texture ^A Type ^B Volume ^C
Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm HumusType: (M)or (M)oder (P)rairie mull (W)ormed mull	Top Bottom Texture ^A Type ^B Volume ^C (1: 0 cm (>) cm
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Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) (4) (9) Depth to Semi-Permeable Layer: cm Depth to Gray Colors or Redox Features: cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well (S)omewhat poorly (P)oorly (V)ery poorly drained Height of Moss Hummocks: cm Sphagnum Cover: %	Top Bottom Texture ^A Type ^B Volume ^C 1: 0 cm (>) cm 2: cm (>) cm 3: cm (>) cm 4: cm (>) cm 5: cm (>) cm 6: cm (>) cm 7: cm (>) cm 8: cm (>) cm
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Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) (4) (9) Depth to Semi-Permeable Layer: cm Depth to Gray Colors or Redox Features: cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well (S)omewhat poorly (P)oorly (V)ery poorly drained Height of Moss Hummocks: cm Sphagnum Cover: % Depth of Standing Water: (>) cm pH of Surface Water: ± Average Depth to Bedrock: cm Exposed Rock: % Rock Group: (F)elsic (M)afic (C)alcareous (S)andstone (S)ioux quartzite (O)th Rock Type: General Soil Texture: (C)lay (L)oam (S)and (S)ilt (R)ock (M)uck (P)eat	Top Bottom Texture ^A Type ^B Volume ^C 1: 0 cm (>) cm 2: cm (>) cm 3: cm (>) cm 4: cm (>) cm 5: cm (>) cm 6: cm (>) cm 7: cm (>) cm 8: cm (>) cm A S = sand, LS = loamy sand, SL = sandy loam, L = loam, SL = silt loam, SCL = sandy clay loam, CL = clay loam, SICL = silty clay loam, SC = sandy loam, SC = sandy loam, SC = sandy clay loam, SC = sandy loam, SC
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Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) (4) (9) Depth to Semi-Permeable Layer: cm Depth to Gray Colors or Redox Features: cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well (S)omewhat poorly (P)oorly (V)ery poorly drained Height of Moss Hummocks: cm Sphagnum Cover: % Depth of Standing Water: (>) cm pH of Surface Water: ± Average Depth to Bedrock: cm Exposed Rock: % Rock Group: (F)elsic (M)afic (C)alcareous (S)andstone (S)ioux quartzite (O)th Rock Type: General Soil Texture: (C)lay (L)oam (S)and (S)ilt (R)ock (M)uck (P)eat	Top Bottom Texture ^A Type ^B Volume ^C 1: 0 cm (>) cm 2: cm (>) cm 3: cm (>) cm 4: cm (>) cm 5: cm (>) cm 6: cm (>) cm 7: cm (>) cm 8: cm (>) cm A S = sand, LS = loamy sand, SL = sandy loam, L = loam, SL = silt loam, SCL = sandy clay loam, CL = clay loam, SICL = silty clay loam, SC = sandy loam, SC = sandy loam, SC = sandy clay loam, SC = sandy loam, SC
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 Prism Factor:
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Photos Taken: (Y)es) (N)o

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Surveyor(s): S MILISTRAL	Surveyor's Releve #:\$ AMIL-006 Date: 7/1 2014
County: 4. 1 and Medicine	Surveyor's Place Name: 8217

ID	c.s	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAME	REMARKS	ID	С	S SPECIES NAME	REMARKS
						H1-36			Т	G1-3c	
	Ė				1.	S. EURYCARROWN M. ATRIANSIS			2	S. PERTHAMA C. PERKERBELLIS	
	<u> </u>				↓	MIMPLUMERS			2	C. PELLITA	
Н									I	C. PRACECTACIUS	
									4	KENDEAL QUOLCUA	-
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Life Form B = broadleaf evergreen D = broadleaf deciduous E = needleleaf evergreen G = graminoids H = forbs L = lichens M = mosses & liverworts C = climbers K = stem succulents F = floating-leaved S = submerged X = epiphytes	Height 8 > 35m 7 = 20-35m 6 = 10-20m 5 = 5-10m 4 = 2-5m 3 = 0.5-2m 2 = 0.1-0.5m 1 = 0-0.1m	Cov Group c i p r b a	Species 5 75-100% 4 50-75% 3 25-50% 2 5-25% 1-5% <1% Abundance 1 <5% cover, ft r <5% cover, s		Reliability Code 0 = variety certain 1 = cf. var./subsp. 2 = species certain 3 = species complex 4 = cf. species 5 = genus certain 6 = cf. genus 7 = unknown	Selected Remark Codes DD = dead DY = dying GE = germinating SD = seedling SP = sprout (coppice) FR = fruiting OP = outside plot (<2m) ## = specimen collection #
	Note: indicate tre	e canopy b	v recording "Ca" to	right of canopy layer life form/height coo	ie (ex: "D6 - 9p. Ca")	

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	Initial Scan	
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	QC'd	
	Edited	
1	Final Scan	

MINNESOTA DEPARTMENT OF NATURAL RESOURCE MNDNR, Division of Ecological & Water Resources, 500 Lafayette		4N 55155	Entered
Num security Staticals			QC'd Edited
GENERAL INFORMATION	SITE DATA SHE	EEI	Final Scan
DNR RELEVE#			
Surveyor(s): S.A.M ILEUTEN	Pag.		44.44.44.4
Surveyor's Releve #: <u>SAMIL -607</u> Surveyor's Place	rs/1 d 1/2		
Institution: (M)BS (E)CS (N)HP (U)SFS (U) of M (O)the Purpose of Releve: (C)lassification (R)are species habitat (M	I) IN & O)ther		
Revisit: (Y)es (N) Original DNR Releve #:	Johnson (O)tilei		
Date: 6 Month: JUL Year: 20 6.9.09 J	JUL 2004) ·		
MBS Site #: Ownership:			
VEGETATION INFORMATION		A CONTRACT OF THE PARTY OF THE	
Vegetation Group: (WU) wooded upland (OU) open upland	(WW) wooded wetland	d (OW) open wetland	
NPC Code (Name): <u>W M & 8 3 (</u>		The state of the s)
NPC Ranking in Releve:			
Stand Typical of NPC: (Y)es (N)o (U)ncertain If No, identify appropriate modifier: (N)atural disturbance (H)ur	non disturbance (M		
D 1	And the Control of th		
Releve Typical of Stand: (Y)es (N)o If No, identify appropriate modifier: (H)igher Quality (L)ower Qu	uality (C)anopy Gap (O)ther	
Plot Location in NPC: (F)ar from community boundary (M)ode			·
LOCATION INFORMATION	· · · · · · · · · · · · · · · · · · ·	(=),555 (=),555	
	Permanent Marke	ers (N)o (Y)es	
UTM: $\frac{3081}{4956037}$ E (record in NAD83, Zone 16)		acement:	
UTM Accuracy: meters			
Location Source: (G)P3 (A)ir photo (T)opo map (L)iDAR (O)ther		•
County: WHATTEN Town	ship: N Ra	ange: Section:	QQRT: of QRT:
PLOT INFORMATION			
Plot Size: $15 \text{ m} \times 15 \text{ m} = 150 \text{ m}^2$			
Elevation: ft. Slope:(°) or 45 (%			, ,
Topographic Context: (C)rest (U)pper (M)iddle (L)ower (Γ)oe (F)lat (D)epress	sion (?)uncertain	
SOIL INFORMATION			
Litter Thickness: cm		Depth of Layer	Coarse Fragments
Litter Type: (L)eaves (N)eedles (G)rass (O)ther			
Humus Thickness: cm HumusType: (M)or (M)oder (P)rairie muil (W)ormed mu	.n		
Earthworms Present: (Y)es (N)o	116	2: cm (>) cn	
Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) (4) (5)	ν 3: cm (>) cn	
Depth to Semi-Permeable Layer: cm	, , , , ,	4:cm (>)cm	l l
Depth to Gray Colors or Redox Features: cm		111 E	
Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M		[0 6. am (x) am	·
((S)omewhat poorly (P)oorly (V)ery poorly drain	ned	7:cm (>)cm	
Height of Moss Hummocks:cm	ļ	8:cm (>)cm	
Sphagnum Cover: %	Į.	A S = sand, LS = loamy sand, SL = sand	
Depth of Standing Water: (>) cm	•	sandy clay loam, CL = clay loam, SICL	=,silty clay loam, SC = sandy clay, SIC = silty
pH of Surface Water: ±		clay, C = clay, RO = rock, PE = peat,	mP = mucky peat, MU = muck 1, add suffix to two-letter code: -m = moss, -s
Average Depth to Bedrock: cm		= sedge	, and sums to two-letter code; -m = moss, -s
Exposed Rock:%		^B Gr = gravel, Co = cobbles, St = stones,	Bo = boulders
Rock Group: (F)elsic (M)afic (C)alcareous (S)andstone (S)iou	ux quartzite (O)ther	^C 0 = <15%, 1 = 15-35%, 2 = 35-60%, 3 =	= 60-90%, 4 = >90%, ? = unknown
Rock Type:			
General Soil Texture: (C)lay (L)oam (S)and (S)ilt (R)ock (I	M)uck (P)eat		
Remarks: Securage fout	UVE ON W 81	ide stone with si	unificant
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Basal Area & Tree Diameters DBH List: (C)omplete	(P)ortiol	_	
DDR LIST: (C)OMPLETE	e (P)artial ∥ Notes	S.	

Basal Area	a & Tree Di	ameters	DBH List: (C)omplete (P)artial				
Species	L/D	BA-1	BA-2	Ave.	DBH (cm)		
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Prism Factor: ____

Releve-Wide DBH Statistics Min: ____ Max: ___ Median:_

Photos Taken: (Y)es

Surveyor(s): S.Milbord	Surveyor's Releve #: 8+1416-604 Date: 7 1 2016
County: Letter Messiche	Surveyor's Place Name: BUG

	<u> —</u> ¬		1	Ė	-	·		[0.5	SPECIES NAME	REMARKS
ID	c.s	SPECIES NAME	REMARKS	ID	C.S	SPECIES NAME	REMARKS	ID	C.S	'	REMARKS
Ш		D1-3r	<u> </u>		<u> </u>	H1-3i		-	<u>.</u>	61-38 S. PHILIDUS	
	1	FRATHUS DENNSYlvana	M		4.	E. ABULUSIC S. GICANTEA P. MAJOR		<u> </u>	2	S. PALLIBUT	
	+:	O.VIRCINIANA		L	1.	S. GICKHARA		<u> </u>	Į	E. B. RYTHEOMONA.	
					4-	Y. MAJOE		<u> </u>	4.	C. MYSTERLCHER	
				\perp	ţ:	1 6 BURGO	<u> </u>	\vdash	1.	J. HODORSUS	
				5	1.	TYPHA E. PERFOLIATUM		\vdash	١.	J. NOODSUS	-
				L	7.	E. PURFOLIATUM		\vdash	<u> </u>	HIGHTSH	
				_	N	G. ROWANIE		-	Ŀ		_
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Ш		·		L	<u> </u>	10 CAPENSIS		 	·-		
Ш	•			L	4:	V. NEPROPHYLLA		<u> </u> _	<u> </u>		
			ļ	 _	4.	LIAMERICANUS HIRUTUMMALE			<u> </u>		
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Life Form B = broadleaf evergreen D = broadleaf deciduous E = needleleaf evergreen G = graminoids H = forbs L = lichens M = mosses & liverworts C = climbers	Height 8 > 35m 7 = 20-35m 6 = 10-20m 5 = 5-10m 4 = 2-5m 3 = 0.5-2m 2 = 0.1-0.5m 1 = 0-0.1m	Group c i p r b a	Species 5 75-100% 4 50-75% 3 25-50% 2 5-25% 1-5% <1% Abundance	Sociability 5 = extensive mat 4 = small colonies, broken mat 3 = large group, many plants 2 = small dense clumps 1 = growing singly	Reliability Code 0 = variety certain 1 = cf. var./subsp. 2 = species certain 3 = species complex 4 = cf. species 5 = genus certain 6 = cf. genus 7 = unknown	Selected Remark Codes DD = dead DY = dying GE = germinating SD = seedling SP = sprout (coppice) FR = fruiting OP = outside plot (<2m) ## = specimen collection #		
K = stem succulents F = floating-leaved S = submerged X = epiphytes	1 <5% cover, many individuals + <5% cover, few (2-20) individuals r <5% cover, single Meter indicate tree capeny by recording "Ca" to right of capeny layer life form/height code (ex: "D6 - 9p. Ca")							

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Survey	/or(s): <u> </u>	o # Cond	<u>,000</u>	208	Surveyor's Place	Name: Ro	2768											
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Revisi	t: (Y)es	(N)o)_	Origina	I DNF	Releve #:													
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					al disturbance (H)un	nan disturbance	(Y)oung	star	nd (<	<40 yrs)	(O)th	ner						
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Plot Lo	ocation in	NPC: (F	ar from co	mmuni	ty boundary (M)oder	rately far from b	oundary ((C)1	ose	to bou	ndary	(E)	cotonal					
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	vorms Pre				e maii (vv)onnea ma	ли			2:				cm		_			
					u → heavy): (1) (2	2) (3) (4)	(5)	ers	3:		_		cm			-	- —	
Depth	to Semi-P	ermeabl	e Layer:		cm			Ľaye					cm				- —	
Depth	to Gray C	olors or	Redox Fe	eature	s: cm		1	<u>"</u>	\ 5:	:	_cm	(>)_	сп	i				
Draina	ige Class:	`	•		xcessively (W)ell (N		1	Soil	6:	:	_cm	(>)_	сп	١				
					rly (V)ery poorly drai	ined		0,	7:	:	_cm	(>)_	cm	ı <u>.</u>				
	t of Moss I				n		1		(8:	:	_cm	(>)_	cm	ı			- —	
Donth	num Cove of Standir	n Water	⁷⁰		m									/ loam, L=				
	Surface W		±		• ,									≕isilty clay l MP = muck				SIC = SIILY
-	ge Depth t			7	,				rigin edge		or muc	ky pea	t is know	r, add suffix	to two	a-letter cor	de: -m =	moss, -s
	ed Rock:		%	(1)	•				_		= cobb	dae St	- stones	Bo≃ bould	lore			
				careous	(S)andstone (S)io	oux quartzite (C	274							= 60-90%, 4		1% 2 = uml	KNOWN	
Rock T	Гуре:	. ,						0 -	- \13	570, 1-1	.5-5570,	, 2-3-	3.0070, 3	- 00-3070, -	, - , 50	70, 1 - um	4101111	
Gener	al Soil Tex	ture: (C	:)lav (L)oa	m (S)	and (S)ilt (R)ock ((M)uck (P)eat	:			ı								
	Δ.		endow	, ,		. با در مرز با	O h.					ul	4		٠. (.	A Com	o-t A.L	
Remar	KS:		A)LLAMY		プラー・ーーナー・	7		1-5	14	.WYYY		1	-++x	7	A F 4	1-0-1	7	
2/ A	1000	TYCK	2 T T T T T			- Mayex			T	15 5	<u> </u>	#\.	razi	WAY.	_0_v	7.4		<u> </u>
1.77	X-XX-X	MARC	V_W	TARY	groter mills	- Tron-M	المالية	U.	\mathcal{L}	WX	-7-	_' _{\circ}	<u> </u>	247	<u> </u>	<u> </u>	COCK	7
767	ir mil	~ @xt-40	MMC_	TAN.	ZAVI W Z PA	riner in	LLLY	M	يير	<u> </u>	M	W.	ni		0	L	. — — -	
					DD1111 (2)	- /D** 1	1			· · · · · · · · · · · · · · · · · · ·								
Basal A Species	rea & Tree D	BA-1	BA-2	Ave.	DBH List: (C)omplet DBH (cm)	e (P)artial	Notes	s:	1	212) Keer K	<u>L</u> R.	AA.					
					·····		15		1 F	C. Montered were		400mm.)	- A 400%					

Basal Area	a & Tree Di	ameters			DBH List: (C)omplete (P)artial
Species	L/D	BA-1	BA-2	Ave.	DBH (cm)
					·
				-	``````````````````````````````````````
				 	
				 	
	1 1			1	1

Prism Factor: ___

Releve-Wide DBH Statistics Min: ____ Max: ___ Median:__

Photos Taken (Y)es (N)o

DNR RELEVE#

Surveyor(s): S.M. Born	Surveyor's Releve #: ชิวัฟ เฮอริ Date: ๔ 3๗ บแน
County: Gillery Medicine	Surveyor's Place Name: BRØ4

D C.S SPECIES NAME REMARKS D C.S SPECIES NAME REMARKS D C.S SPECIES NAME C.S	REMARKS
M. ARUCHELL	
1.	
N. HA-STATA N. SUBMUM N. SUBMUM N. S. CATAMBERS N. S. PRILLIDUS N. PERRE N. S. PECTINATA N. P. HALDDAD RIPLID N. NEPERBRUILLA N. NEPERBR	
1. L. ASPER 1. P. HANDRO DIPPO 1. V. NEPORPHILLA 1. M. PINGELS 1. T. CHAMBERS OP 1. E. LEPTONY LUM 2. P. PLANGULVANICO OP 3. T. DASLEMENTO OP 3. LIN LICERATUM 3. SILIN LICERATUM 4. SILIN LICERATUM 5. SIL	
P. HADROPER 1. CARRESTANCE	,
T CANTREAS	,
	,
. T. CAMPY GAS 15 OP . A. SYRI BEAK . D. LEPTOPHY LUUM . C. ANDULASE . P. PENSOLVADACO OP . T. DASYCHERA OP . S. LM LILEGRATUM	<u>'</u>
H. Sypany Com I. B. Leptony Com C. Mortisse P. Penton Com T. Dasych Com S. La Checon Tim	
I. E. L'EPTOPHY LUMM C. ANDULISE P. PENNOLUMIA OP T. DISSICHARIM S. LII LILEGRATUM	
C. MOVINSE P. PENNSHEVANIA OP T. DASHERATUM SI LA LILEGRATUM	
P. PENYSHLVANIA OP T. DASMERVERM OP SILMILLEGRATUM	
TO DASYCAREDA OP SOLINGIA TUM	
SILMILLOCRATUM .	

Life Form	<u>Height</u>	Cov	/er	Sociability	Reliability Code	Selected Remark Codes
B = broadleaf evergreen	8 >35m	Group	Species	5 = extensive mat	0 = variety certain	DD = dead
D = broadleaf deciduous	7 = 20-35m	` c	5 7 5-100%	4 = small colonies, broken mat	1 = cf. var./subsp.	DY = dying
E = needleleaf evergreen	6 ≃ 10-20m	i	4 50-75%	3 = large group, many plants	2 = species certain	GE = germinating
G = graminoids	5 = 5-10m	р	3 25-50%	2 = small dense clumps	3 = species complex	SD = seedling
H = forbs	4 = 2-5m	r	2 5-25%	1 = growing singly	4 = cf. species	SP = sprout (coppice)
L = lichens	3 = 0.5-2m	b	1-5%		5 = genus certain	FR = fruiting
M = mosses & liverworts	2 = 0.1- 0.5m	а	<1%		6 = cf. genus	OP = outside plot (<2m)
C = climbers	1 = 0-0.1m		Abundance		7 = unknown	## = specimen collection #
K = stem succulents			1 <5% cover, n	nany individuals		
F = floating-leaved			+ <5% cover, fe	ew (2-20) individuals		
S = submerged			r <5% cover, s	ingle		
X = epiphytes				_		
• • •	Note: indicate tre	e canony h	v recording "Ca" to a	right of canony layer life form/height cos	le (ev: "D6 - 0e Ca")	

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KITURAL RESOLUCES
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	Initial Scan	
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	MNDNR, Division of Ecological & Water Resource	as, 500 Lafavette Road, Box 25, St. Paul.	MN 55155	QC'd
OCEANINEM OF KITURAL RESOURCES				Edited
GENERA	L INFORMATION	SITE DATA SH	EET	Final Scan
DNR F	RELEVE #			
Survey	or(s): S. MILBURN			
Survey	or's Releve #: SAMID-DIA Surv	eyor's Place Name: BP32		
	ion: (M)BS (E)CS (N)HP (U)SFS (U)	100 100		
Purpos	e of Releve: (C)lassification (R)are specie	es habitat (M)onitoring (O)ther		
Revisit	(Y)es ((N)o Original DNR Rele	eve #:		
Date: _	<u> 仏 Month: 日じい Year: 20।</u>	(e.g. 09 JUL 2004)		
MBS S	ite #: Ownership:			·
	TION INFORMATION		and the second	
Vegeta	tion Group: (WU) wooded upland (OU)	open upland (WW) wooded wetlan	nd ''(OW) open wetland ⁾	
NPC Co	ode (Name): 💆 🔼 🏚 🧐 🚨 i	()
	anking in Releve:			
	Γypical of NPC: (Y)es (N)e (U)ncerta			
	No, identify appropriate modifier: (N)atural distu	urbance (H)uman disturbance (Y)ou	ng stand (<40 yrs) (O)ther	
	Typical of Stand: (Y)es (N)o	: (1)	DMF as	
	No. identify appropriate modifier: (H)igher Quali			
Plot Lo	cation in NPC: (F)ar from community bour	ndary (M)oderately far from boundary	(C)lose to boundary (E)cotona	1
	ON INFORMATION		Com	
UTM:	$\left\{ \frac{763083}{4953310} \text{ N} \right\}$ (record in NAD83, Zo	Permanent Mari		
		' A Marker Type / P	lacement:	
UTMA	ccuracy:meters	(1):040 (0):5		•
County	on Source: (G)PS) (A)Ir photo (T)opo ma	Township: N F	Sange: Section:	OORT: of ORT:
		Township: N T	tange: bection:	_ dditi:
PLOT IN	FORMATION			
Plot Siz	ze: $10 \text{ m} \times 10 \text{ m} = 10 \text{ cm}^2$	(04)		
	on:ft. Slope:(°)			
Topogr	raphic Context: (C)rest) (U)pper (M)iddl	le (L)ower (T)oe (F)lat (D)epre	ssion (?)uncertain	
COLL INE	ORMATION			
SOIL INF	ONWATION			
Litter T	hickness: cm	(2)	Depth of Layer	Coarse Fragments
Litter T Lit	hickness:cm ter Type: (L)eaves (N)eedles (G)rass	(O)ther	Depth of Layer Top Bottom	
Litter T Lit Humus	hickness: cm ter Type: (L)eaves (N)eedles (G)rass Thickness: cm		Top Bottom	Texture ^A Type ^B Volume ^C
Litter T Lit Humus Hu	hickness: cm ter Type: (L)eaves (N)eedles (G)rass Thickness: cm musType: (M)or (M)oder (P)raine mull			Texture ^A Type ^B Volume ^C
Litter T Lit Humus Hu Earthw	hickness: cm ter Type: (L)eaves (N)eedles (G)rass Thickness: cm musType: (M)or (M)oder (P)raine mull forms Present: (Y)es (N)o	(W)ormed mull	1: <u>0 cm</u> (>) <u>c</u> cm (>) <u>c</u>	Texture ^A Type ^B Volume ^C m
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Litter T Litt Humus Hu Earthw Earthw Depth t Drainag Height Sphagr	ter Type: (L)eaves (N)eedles (G)rass Thickness: cm musType: (M)or (M)oder (P)raine mull orms Present: (Y)es (N)o orm Rapid Assessment Rank (low → hea to Semi-Permeable Layer: cm to Gray Colors or Redox Features: ge Class: (E)xcessively/Somewhat excessiv (S)omewhat poorly (P)oorly (V) of Moss Hummocks: cm num Cover: %	(W)ormed mull avy): (1) (2) (3) (4) (5) and complete cm vely (W)ell (M)oderately well	Top Bottom 1: 0 cm (>) c 2: cm (>) c 3: cm (>) c 4: cm (>) c 5: cm (>) c 6: cm (>) c 7: cm (>) c 8: cm (>) c A S = sand, LS = loamy sand, SL = san sandy clay loam, CL = clay loam, SlC clay, C = clay, RO = rock, PE = peat	Texture Type Volume Volume m m m dy loam, L=loam, SIL=silt loam, SCL= L=silty clay loam, SC=sandy clay, SIC=silty , MP=mucky peat, MU=muck
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Litter T Litt Humus Hu Earthw Earthw Depth t Drainag Height Sphagr Depth of S Averag	ter Type: (L)eaves (N)eedles (G)rass Thickness: cm musType: (M)or (M)oder (P)raine mull orms Present: (Y)es (N)o orm Rapid Assessment Rank (low → hea to Semi-Permeable Layer: cm to Gray Colors or Redox Features: ge Class: (E)xcessively/Somewhat excessiv (S)omewhat poorly (P)oorly (V) of Moss Hummocks: cm num Cover: % of Standing Water: (>) cm surface Water: ± te Depth to Bedrock: cm	(W)ormed mull avy): (1) (2) (3) (4) (5) and complete cm vely (W)ell (M)oderately well	Top Bottom 1: 0 cm (>) c 2: cm (>) c 3: cm (>) c 4: cm (>) c 5: cm (>) c 6: cm (>) c 7: cm (>) c 8: cm (>) c A S = sand, LS = loamy sand, SL = san sandy clay loam, CL = clay loam, SIC clay, C = clay, RO = rock, PE = peat If origin of peat or mucky peat is know	Texture Type Volume Volume Type Volume Typ
Litter T Litt Humus Hu Earthw Earthw Depth t Drainag Height Sphagr Depth o PH of S Averag Expose	ter Type: (L)eaves (N)eedles (G)rass Thickness: cm musType: (M)or (M)oder (P)raine mull orms Present: (Y)es (N)o orm Rapid Assessment Rank (low → hea to Semi-Permeable Layer: cm to Gray Colors or Redox Features: ge Class: (E)xcessively/Somewhat excessiv (S)omewhat poorly (P)oorly (V) of Moss Hummocks: cm num Cover: % of Standing Water: (>) cm	(W)ormed mull avy): (1) (2) (3) (4) (5) 1 cm vely (W)ell (M)oderately well ery poorly drained	Top Bottom 1: 0 cm (>) c 2: cm (>) c 3: cm (>) c 4: cm (>) c 5: cm (>) c 6: cm (>) c 7: cm (>) c 8: cm (>) c A S = sand, LS = loamy sand, SL = san sandy clay loam, CL = clay loam, SIC clay, C = clay, RO = rock, PE = peat If origin of peat or mucky peat is know = sedge B Gr = gravel, Co = cobbles, St = stone	Texture Type Volume Volume To Texture You Type Volume To Type Volume To Type You
Litter T Litt Humus Hu Earthw Earthw Depth t Drainag Height Sphagr Depth o PH of S Averag Expose	thickness: cm ter Type: (L)eaves (N)eedles (G)rass Thickness: cm musType: (M)or (M)oder (P)raine mull orms Present: (Y)es (N)o orm Rapid Assessment Rank (low → hea to Semi-Permeable Layer: cm to Gray Colors or Redox Features: ge Class: (E)xcessively/Somewhat excessiv	(W)ormed mull avy): (1) (2) (3) (4) (5) 1 cm vely (W)ell (M)oderately well ery poorly drained	Top Bottom	Texture Type Volume To Texture Type Volume To Type Volume T
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Releve-Wide DBH Statistics Min: ____ Max: ___ Median: ____

Prism Factor: ____

Photos Taken: (Y)es (N)o

Surveyor(s): S.Milborn	Surveyor's Releve #: Stm 16-014	Date: 16.2016
County: 4 Modicine	Surveyor's Place Name: BR32	J

ID	C,S	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAMÉ	REMARKS	ID	c.s	SPECIES NAME	REMARKS
		D1-2a	1			H1-3 P				G1-3C	
	4:	C. STOLONIFGOM			١.	HI GIGANTELES			4.	S. PUNCOCK	
					ļ	G. PROCERY			1.	Sincurus	
					١.	PICLATER			2.	MPICHWARDSONII	
					٧.	Lilotstili			١.	MICHOMERIATA	
					1.	LIEBUMII			4	Q.TONGCHY CAULIS	
					1.	VINTERDERMILLA			١.	C. AGURATUS	
					+	SPINELLI			mari:	P. ADUNDING LA	
					1.	S. BOLEMIE		A	١.	C. PELLITA	,
					+.	B. LEPTOPHLLUM				,	
		·			\.	E.MACULATUM.					
	•.				١.	H. GROSSERSERRATUS					
		,].	LIMEPER				•	
					1.	A.CHESHIBIDUM					
					<u>'</u> \'	A. IHCKONWAN					
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Life Form	<u>Height</u>	Co	ver	Sociability	Reliability Code	Selected Remark Codes
B = broadleaf evergreen	8 >35m	Group	Species	5 = extensive mat	0 = variety certain	DD = dead
D = broadleaf deciduous	7 = 20-35m	C	5 75-100%	4 = small colonies, broken mat	1 = cf. var./subsp.	DY = dying
E = needleleaf evergreen	6 = 10-20m	i	4 50-75%	3 = large group, many plants	2 = species certain	GE = germinating
G = graminoids	5 = 5-10m	р	3 25-50%	2 = small dense clumps	3 = species complex	SD = seedling
H = forbs	4 = 2-5m	ř	2 5-25%	1 = growing singly	4 = cf. species	SP = sprout (coppice)
L = lichens	3 = 0.5-2m	b	1-5%	5 5 , 5 ,	5 = genus certain	FR = fruiting
M = mosses & liverworts	2 = 0.1 - 0.5 m	а	<1%		6 = cf. genus	OP = outside plot (<2m)
C = climbers	1 = 0.0.1m		Abundance	<u> </u>	7 = unknown	## = specimen collection #
K = stem succulents			1 <5% cover, n	nany individuals		•
F = floating-leaved				ew (2-20) individuals		
S = submerged			r <5% cover, s	ingle		
X = epiphytes						
	Notes indicate tr	aa aanany h	v recording "Ca" to	right of agreem layer life form/height agr	to love "DE On Co")	•

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DEFAULUTION OF SUTURAL RESOURCES	

	Initial Scan	
_	Entered	
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W	MNDNR, Division of Ecological & Water Resources, 500 Lafayette Road, Box 25, St. Paul, MN 55155	OC'd I
MEANING OF KITIRAL RESOURCES		QC'd
	LINFORMATION SITE DATA SHEET	Final Scan
	ELEVE#	1
Surveyo	or's Releve #: SAMIL -O\S Surveyor's Place Name: B'225	
Instituti	ion: (M)BS (E)CS (N)HP (U)SFS (U) of MC(O)ther MN NE	
	e of Releve: ((C)lassification (R)are species habitat (M)onitoring (O)ther	
	(Y)es (N)o Original DNR Releve #:	
Date: \	Month: Y G Year: 20 1 6 (e.g. 09 JUL 2004)	
	te #: Ownership:	· ·
	TION INFORMATION	
	tion Group: (WU) wooded upland (OU) open upland (WW) wooded wetland (OW) open wetland	
NPC Co	ode (Name): \(\frac{\partial P_ \sigma 3}{2} \) ()
	inking in Releve:	
	ypical of NPC; (Y)es (N)o (U)ncertain	
If <u>N</u>	lo, identify appropriate modifier: (N)atural disturbance (H)uman disturbance (Y)oung stand (<40 yrs) (O)ther	
Releve	Typical of Stand (Y)es (N)o	1 41.
If <u>N</u>	Typical of Stand? (Y)es / (N)o lo, identify appropriate modifier: (H)igher Quality (E)ower Quality (C)anopy Gap (O)ther \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Luine
Plot Loc	cation in NPC: (F)ar from community boundary (M)oderately far from boundary (C)lose to boundary (E)coton	al ·
LOCATIO	ON INFORMATION	
4	7 0 6 0 2 1 E (record in NAD83, Zone 19) 4 Permanent Marker: (N)o (Y)es Marker Type / Placement:	
UTM Ac	ccuracy: meters	
Locatio	n Source: (G)PS (A)ir photo (T)opo map (L)iDAR (O)ther N Range: Section:	
County:	: <u>UELLOW MEDICINE</u> Township: N Range: Section: _	QQRT: of QRT:
PLOT INF	FORMATION	
	te: $1D \text{ m x } 1D \text{ m} = 1 D D \text{m}^2$	
Elevatio	on:ft. Slope:(°) or 15 (%) Aspect: (e.g., N, NE, etc.; LV for level)	
Topogra	aphic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epression (?)uncertain	
	The state of the s	
SOIL INFO	ORMATION	
	ORMATION hickness: cm	Casyas Evarmonta
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Prism Factor: ____

Releve-Wide DBH Statistics Min: ____ Max: ____ Median:___

DNR RELEVE #

Surveyor(s): S.Milburn	Surveyor's Releve #: &\text{http://www.surveyor}	5 Date: Aug 16,2016
County: Yellan Medicine	Surveyor's Place Name: BR25	0

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ID	C.S	SPECIES NAME	REMARKS	JD	C.S	SPECIES NAME	REMARKS	ID		SPECIES NAME	REMARKS
			·		<u>.</u>	H1-3a			<u> </u>	GI-3C CHUSTBELLINA	
Ш					┽.	T. PHERODICALLA V. NEPOSPHYLLA B. MACULATA		L	2	CHUSTBELLINA	
	<u>.</u>				1.	VINEPROPHILLIA			4.	J. BALTILUL	
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Life Form	Height		<u>ver</u>	Sociability	Reliability Code	Selected Remark Codes
B = broadleaf evergreen	8 >35m	Group	Species	5 = extensive mat	0 = variety certain	DD = dead
D = broadleaf deciduous	7 = 20-35m	С	5 75-100%	4 = small colonies, broken mat	1 = cf. var./subsp.	DY = dying
E = needleleaf evergreen	6 = 10-20m	i	4 50-75%	3 = large group, many plants	2 = species certain	GE = germinating
G = graminoids	5 = 5-10m	р	3 25-50%	2 = small dense clumps	3 = species complex	SD = seedling
H = forbs	4 = 2-5m	r	2 5-25%	1 = growing singly	4 = cf. species	SP = sprout (coppice)
L = lichens	3 = 0.5-2m	b	1-5%		5 = genus certain	FR = fruiting
M = mosses & liverworts	2 = 0.1 - 0.5 m	а	<1%		6 = cf. genus	OP = outside plot (<2m)
C = climbers	1 = 0-0.1m		<u>Abundance</u>		7 = unknown	## = specimen collection #
K = stem succulents			1 <5% cover, n	nany individuals		•
F = floating-leaved			+ <5% cover, fe	ew (2-20) individuals		
S = submerged			r <5% cover, s	ingle		
X = epiphytes						

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Hirrasola		Initial Scan
MINNESOTA DEPARTMENT OF NATURAL RESOURCES RELEVE FORM		
MNDNR, Division of Ecological & Water Resources, 500 Lafayette Road, Box 25, St. Pau	I. MN 55155	
Rinkle Statemen		
GENERAL INFORMATION SITE DATA SI	HEET	Edited Final Scan
DNR RELEVE #		1 mar ocar
Surveyor(s): S: MILBURN		
Surveyor's Releve #: SAMIL- WA Surveyor's Place Name: BDO		
Institution: (M)BS (E)CS (N)HP (U)SFS (U) of M (O)ther M N R	<u> </u>	·
Purpose of Polorer (C): 18 19 (D) of M (O)ther) 17/10/2		
Purpose of Releve: (C)lassification (R)are species habitat (M)onitoring (O)ther	DOCOMENMATION	
Revisit: (Y)es (N)o Original DNR Releve #:		·
Date: 30 Month: 50 H Year: 20 16 (6.9.09 JUL 2004)		
MBS Site #: Ownership:		·
VEGETATION INFORMATION		
Vegetation Group: (WU) wooded upland (OU) open upland (WW) wooded wette	and (TOW) open wetland	·
NPC Code (Name): (None > De gra decl	dearage	,
NPC Ranking in Releve:	1000	
Stand Typical of NPC: (Y)es (N)o (U)ncertain		
If No, identify appropriate modifier: (N)atural disturbance (H)uman disturbance (Y)o	ung stand (<40 vrs) (O)ther	
Releve Typical of Stand: (Y)es (N)o		
If No, identify appropriate modifier: (H)igher Quality (L)ower Quality (C)anopy Gap	(O)ther	
Plot Location in NPC: (F)ar from community boundary (M)oderately far from boundary		
	y (C)lose to boundary (L)cotona	.
LOCATION INFORMATION		
UTM: Permanent Mar		
UTM: 102309E A955022N (record in NAD83, Zone 36) Permanent Marker Type / F	Placement:	
UTM Accuracy: meters		
	· ·	
Location Source: (G)PS (A)jr photo (T)opo map (L)iDAR (O)ther	•	•
Location Source: (G)PS (A)jr photo (T)opo map (L)iDAR (O)ther County: U, Llow Wedney Township: N	Range: Section:	QORT: of ORT
County: U. Hour Medicine Township: N	Range: Section:	_ QQRT: of QRT:
PLOT INFORMATION	Range: Section:	_ QQRT: of QRT:
PLOT INFORMATION Plot Size: 1	Range: Section:	_ QQRT: of QRT:
County: U) law V V U	Range: Section:	_ QQRT: of QRT:
PLOT INFORMATION Plot Size: 1	Range: Section:	_ QQRT: of QRT:
County: U) law V V U	Range: Section:	_ QQRT: of QRT:
PLOT INFORMATION Plot Size:	Range: Section: (e.g., N, NE, etc.; LV for level) ssion (?)uncertain	QQRT: of QRT:
County: U	Range: Section:	QQRT: of QRT: Coarse Fragments
County: U	Range: Section: (e.g., N, NE, etc.; LV for level) ssion (?)uncertain	Coarse Fragments
County: U	Range: Section: Very (e.g., N, NE, etc.; LV for level) ssion (?)uncertain Depth of Layer Top Bottom	Coarse Fragments Texture ^A Type ^B Volume ^C
County: U	Range: Section: V (e.g., N, NE, etc.; LV for level) ssion (?)uncertain Depth of Layer Top Bottom (1: 0 cm (>) _ c 2: _ cm (>) _ c	Coarse Fragments Texture Type Volume
County: U	Range: Section: V (e.g., N, NE, etc.; LV for level) ssion (?)uncertain Depth of Layer Top Bottom (1: 0 cm (>) _ c 2: _ cm (>) _ c	Coarse Fragments Texture Type Volume To Texture
County: U 10 10 10 10 10 10 10	Section: Section:	Coarse Fragments Texture Type Volume To Type Volume
County: U 10 10 10 10 10 10 10	Section: Section:	Coarse Fragments Texture Type Volume Type Volume
County: U 16 VY COUNTY Township: N PLOT INFORMATION Plot Size: mx m = 0 m^2 Elevation: ft. Slope: (°) or 0 (%) Aspect: Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epre SOIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: cm Depth to Gray Colors or Redox Features: cm	Section: Section:	Coarse Fragments Texture Type Volume Type Volume Type Volume
County: U 16 VY COUNTY Township: N PLOT INFORMATION Plot Size: 1	Section: Section:	Coarse Fragments Texture Type Volume Type Volume Type Volume
County: U 16 VY COURDED Township: N PLOT INFORMATION Plot Size: 1	Section:	Coarse Fragments Texture Type Volume To the contract of the
County: U 16 VY COUNTY Township: N PLOT INFORMATION Plot Size: 1	Section:	Coarse Fragments Texture ^A Type ^B Volume ^C Type ^B Volume Type ^B Volume Type ^B Volume Type ^B Volume
County: U 16 Y V COURDE Township: N PLOT INFORMATION Plot Size: 1 m x 1 m = 1 m m² Elevation: ft. Slope: (°) or (%) Aspect: Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epre SOIL INFORMATION Litter Thickness: mm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: mm Humus Thickness: mm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: mm Depth to Gray Colors or Redox Features: mm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well (S)omewhat poorly (P)corly (V)ery poorly drained Height of Moss Hummocks: mm Sphagnum Cover: mm	Depth of Layer	Coarse Fragments Texture Type Volume Type Volume Type Volume Type Volume
County: U	Section:	Coarse Fragments Texture Type Volume
County: U 16 Y Y COUNTY Township: N PLOT INFORMATION Plot Size: 1 m x 1 m = 1 m m² Elevation: ft. Slope: (°) or (%) Aspect: Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epre SOIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: cm Depth to Gray Colors or Redox Features: cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well (S)omewhat poorly (P)oorly (V)ery poorly drained Height of Moss Hummocks: cm Sphagnum Cover: m Depth of Standing Water: (>) cm pH of Surface Water: tm.	Depth of Layer	Coarse Fragments Texture Type Volume Type
County: U	Depth of Layer	Coarse Fragments Texture Type Volume
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Dasai Alea	a & Tree Di	ameters			DBH List: (C)omplete (P)artial			
Species	L/D	BA-1	BA-2	Ave.	DBH (cm)			
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Prism Factor: _

Releve-Wide DBH Statistics
Min: ____ Max: ___ Median:____

Notes:

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Surveyor(s): SiMilburn	Surveyor's Releve #: อัพนะ-๛ีค Date: ๒ 3๐ 2๓๒
County: Gellow Medicine	Surveyor's Place Name:

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				_	4.	S. LANCESLAYUM		-	4	1.	S. FLUVIATILIS	
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Life Form	Height	Cov	er	Sociability	Reliability Code	Selected Remark Codes
B = broadleaf evergreen D = broadleaf deciduous E = needleleaf evergreen G = graminoids H = forbs . L = lichens M = mosses & liverworts C = climbers K = stem succulents F = floating-leaved S = submerged X = epiphytes	8 > 35m 7 = 20-35m 6 = 10-20m 5 = 5-10m 4 = 2-5m 3 = 0.5-2m 2 = 0.1-0.5m 1 = 0-0.1m	Group c i p r b a	+ <5% cover, for r <5% cover, s	5 = extensive mat 4 = small colonies, broken mat 3 = large group, many plants 2 = small dense clumps 1 = growing singly nany individuals w (2-20) individuals ingle	0 = variety certain 1 = cf. var./subsp. 2 = species certain 3 = species complex 4 = cf. species 5 = genus certain 6 = cf. genus 7 = unknown	DD = dead DY = dying GE = germinating SD = seedling SP = sprout (coppice) FR = fruiting OP = outside plot (<2m) ## = specimen collection

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Himesola		•	Initial Scan
	MINNESOTA DEPARTMENT OF NATURAL RESOURCES RELEVE FORM		Entered
DEFAULTED OF KLITICALL RESOURCES	MNDNR, Division of Ecological & Water Resources, 500 Lafayette Road, Box 25, St. Pau	I, MN 55155	QC'd
	L INFORMATION SITE DATA S	HEET	Edited
	RELEVE #	ILLI	Final Scan
Survey	or(s): Similaria	7.	
Inetitut	or's Releve #: SAMILGOS Surveyor's Place Name: BRGion: (M)BS (E)CS (N)HP (U)SFS (U)ofM (O)the MUTC	X 6	
Purnos	e of Releve: (C)lassification (R)are species habitat (M)onitoring (O)ther		
Revisit	(Y)es (N) Original DNR Releve #:	TESOMETHERATI	
Date: 3	3 O Month: 3 U Year: 2 01 6 (e.g. 09 JUL 2004)		***
MBS Si	te #: Ownership:	±	A Committee of the Comm
	TION INFORMATION		
		· Com	
NPC Co	ion Group: (WU) wooded upland (OU) open upland (WW) wooded wetled (Name): WM (User Masser)	and (UVV) open) wetland	,
NPC Ra	inking in Releve:)
Stand T	ypical of NPC: (Y)es (N)o (U)ncertain		
If N	o, identify appropriate modifier: (N)atural disturbance (H)uman disturbance (Y)o	ung stand (<40 vm) (O)ther	
Releve	Typical of Stand: (Y)es (N)o	ang stand (40 yis) (O)aloi	
	o, identify appropriate modifier: (H)igher Quality (L)ower Quality (C)anopy Gap	(O)ther	
	cation in NPC: (F)ar from community boundary (M)oderately far from boundary		
	N INFORMATION	, (-), see to been daily (-) setonic	••
		ker: (N)o (Y)es	
A		Placement:	
UTM Ac	curacy: meters		
Locatio	n Source: (G)PS (A)ir photo (T)opo map (L)iDAR (O)ther	•	
County:	n Source: (G)PS (A)ir photo (T)opo map (L)iDAR (O)ther	Range: Section:	QQRT: of QRT
PLOT INF	ORMATION		
	e: 10 m x 10 m = 160 m ²		
Elevatio	n:ft. Slope:(°) or(%) Aspect:	V (e.g. N NE etc.) V for level	
Topogra	aphic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)la((D)epre	(0.9., 11, 112, 0.0., 24 10, 16461)	
3	ipine context. (C)rest (C)pper (Miliade (L)ower (1)oe (F)lat (D)epre	ession (?)uncertain	
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SOIL INFO Litter Th Litte Humus Hun	ORMATION nickness: cm er Type: (L)eaves (N)eedles (G)rass (O)ther Thickness: cm nusType: (M)or (M)oder (P)rairie mull (W)ormed mull	Depth of Layer Top Botton	Texture ^A Type ^B Volume ^C
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SOIL INFO Litter Th Litte Humus Hun Earthwo Earthwo Depth to Drainage Height o	ORMATION nickness: cm er Type: (L)eaves (N)eedles (G)rass (O)ther	Depth of Layer Top Bottom	Texture ^A Type ^B Volume ^C m m m m m m m m m m m m m
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SOIL INFO Litter Th Litte Humus Hun Earthwo Earthwo Depth to Drainage Height of Sphagnu Depth of	DRMATION nickness: cm or Type: (L)eaves (N)eedles (G)rass (O)ther	Depth of Layer	Texture ^A Type ^B Volume ^C m m m m m m dy loam, L=loam, SIL=silt loam, SCL= L=silty clay loam, SC=sandy clay, SIC=silty MP = mucky peat, MU = muck
SOIL INFO Litter Th Litte Humus Hun Earthwo Earthwo Depth to Drainage Height of Sphagnu Depth of	DRMATION nickness: cm or Type: (L)eaves (N)eedles (G)rass (O)ther	Depth of Layer Top Bottom	Texture ^A Type ^B Volume ^C m m m m m m m m m m sty loam, L= loam, SIL= silt loam, SCL= L= silty day loam, SC= sinty
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SOIL INFO Litter Th Litte Humus Hun Earthwo Depth to Depth to Drainage Height of Sphagnu Depth of pH of Su Average Exposed Rock Gro Rock Ty General	DRMATION nickness: cm or Type: (L)eaves (N)eedles (G)rass (O)ther	Depth of Layer	Texture Type Volume Vol
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DBN (III)

Prism Factor: ___

Releve-Wide DBH Statistics
Min: ____ Max: ___ Median:___

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ground	ge or seepage	Dioil	(minimp

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Surveyor(s): S.M: Burn	Surveyor's Releve #: ನಿಗ್ಗಿಗ್ನ-೧೫೬ Date:(೨ ತನಿ ೨೮೧೩
County:	Surveyor's Place Name:

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Life Form B = broadleaf evergreen D = broadleaf deciduous E = needleleaf evergreen G = graminoids H = forbs L = lichens M = mosses & liverworts C = climbers	Height 8 > 35m 7 = 20-35m 6 = 10-20m 5 = 5-10m 4 = 2-5m 3 = 0.5-2m 2 = 0.1- 0.5m 1 = 0-0.1m	Group C i p r b	Species 5 75-100% 4 50-75% 3 25-50% 2 5-25% 1-5% <1% Abundance	Sociability 5 = extensive mat 4 = small colonies, broken mat 3 = large group, many plants 2 = small dense clumps 1 = growing singly	Reliability Code 0 = variety certain 1 = cf. var./subsp. 2 = species certain 3 = species complex 4 = cf. species 5 = genus certain 6 = cf. genus 7 = unknown	Selected Remark Codes DD = dead DY = dying GE = germinating SD = seedling SP = sprout (coppice) FR = fruiting OP = outside plot (<2m) ## = specimen collection #
K = stem succulents F = floating-leaved S = submerged X = epiphytes			`+ <5% cover, f r <5% cover, s	íew (2-20) individuals	io (ov: "D6 - 9n Ca")	

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Initial Scan	
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Survey	/or(s): <u> </u>	MIL			·				
					Surveyor's Place Name:	31213			
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					e species habitat (M)onitoring (O)th	iejs <u>Dac</u>	AM EPILLILION		
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	TION INF						A Secretary of the Control of the Co		
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				es (G)rass (O)ther		Depth of Layer		Coarse Fragment
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	orms Pre				$w \to heavy$): (1) (2) (3) (4)	(5)	ν 2:cm (>)c 3:cm (>)c		
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	num Cove			_		Ā	S = sand, LS = loamy sand, SL = san		
	of Standir Surface W				irri -		sandy clay loam, CL = clay loam, SIC clay, C = clay, RO = rock, PE = peat	L=,silty clay loam MP = mucky pe	, SC = sandy clay, SiC = : at. MU = muck
							If origin of peat or mucky peat is known		•
	je Depth te			cn	n	_	= sedge		
		elsic (M)	•	Icareous	s (S)andstone (S)ioux quartzite (O)	مملا	Gr = gravel, Co = cobbles, St = stone	•	
Rock T	,		uno (O)ai	. 541 000	, (2) and attains (2) out quartite (0)	[0 = <15%, 1 = 15-35%, 2 = 35-60%,	3 = 60-90%, 4 = >5	10%, ? = unknown
	• • • • • • • • • • • • • • • • • • • •	turo: /C	Nov. (1.)	am (C)	and (S)ilt (R)ock (M)uck (P)eat	_			
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Remar	ks: <u>_Y_</u>	muce	<u>. Bur</u>	san San C	- Post Transfer Description	relv	- IMO - SPECTO	1 XXX	is had .
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Prism Factor: ____

Releve-Wide DBH Statistics Min: ____ Max: ___ Median:_

Surveyor(s): S.W. Noun	Surveyor's Releve #: ShMb - chic Date: 6 30 mil
County: <u>Uelleni Mesticine</u>	Surveyor's Place Name: BU3

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Life Form	<u>Height</u>	Co	ver	Sociability	Reliability Code	Selected Remark Codes
B = broadleaf evergreen	8 >35m	Group	Species	5 = extensive mat	0 = variety certain	DD = dead
D = broadleaf deciduous	7 = 20-35m	C	5 75-100%	4 = small colonies, broken mat	1 = cf. var./subsp.	DY = dying
E = needleleaf evergreen	6 = 10-20m	i	4 50-75%	3 = large group, many plants	2 = species certain	GE = germinating
G = graminoids	5 = 5-10m	р	3 25-50%	2 = small dense clumps	3 = species complex	SD = seedling
H = forbs	4 = 2-5m	r	2 5-25%	1 = growing singly	4 = cf. species	SP = sprout (coppice)
L = lichens	3 = 0.5-2m	b	1-5%		5 = genus certain	FR = fruiting
M = mosses & liverworts	2 = 0.1 - 0.5 m	a	<1%		6 = cf. genus	OP = outside plot (<2m)
C = climbers	1 = 0-0.1m		Abundance		7 = unknown	## = specimen collection #
K = stem succulents			1 <5% cover, n	nany individuals		
F = floating-leaved				ew (2-20) individuals		
S = submerged			r <5% cover, s	ingle		
X = epiphytes						
	Materiadicate te	o aanaay b	v recording "Ca" to	right of conony layor life form/height one	to (ov: "D6 - 0n Ca")	

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MINNESOTA DEPARTMENT OF NATURAL RESOURCES RELEVE FORM	LIMICALES	Entered
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GENERAL INFORMATION SITE DATA S	HEET	Edited Final Scan
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Surveyor(s): S.Milgun-		
Surveyor's Releve #: SAMIL- Col Surveyor's Place Name: BR2	10	
Institution: (M)BS (E)CS (N)HP (U)SFS (U) of M (O)ther M N	-	
Purpose of Releve: (C)lassification (R)are species habitat (M)onitoring (O)there	DOCUMEN THETON	
Revisit: (Y)es (N)o Original DNR Releve #:		
Date: O 1 Month: J Vear: 25 (e.g. 09 JUL 2004)		
MBS Site #: Ownership:		•
VEGETATION INFORMATION	and the second s	
Vegetation Group: (WU) wooded upland (OU) open upland (WW) wooded wetl	and (OW) open wetland	
NPC Code (Name): WMS83 (**************************************
NPC Ranking in Releve:		
Stand Typical of NPC: (Y)es (N)o (U)ncertain		
If <u>No.</u> identify appropriate modifier: (N)atural disturbance (H)uman disturbance (Y)o	oung stand (<40 yrs) (O)ther	
Releve Typical of Stand: (Y)es (N)o If No, identify appropriate modifier: (H)igher Quality (L)ower Quality (C)anopy Gap	(O)ther	
Plot Location in NPC: (F)ar from community boundary (M)oderately far from boundary	iry (C)lose to boundary (E)coto	nal
LOCATION INFORMATION	· · · · · · · ·	
	rker: (N)o)(Y)es	
UTM Accuracy: meters Marker Type / I	Placement:	N2
Location Sources (C)BS (A)krobate (T) (1)(0.45 (O))		
Location Source: (G)PS (A)ir photo (T)opo map (L)iDAR (O)ther County: Lallow Harman (Townshin: N	Range: Section:	OOPT: of OPT:
County: Township: N	Range: Section:_	QQRT: of QRT:
County: Township: N	Range: Section:	QQRT: of QRT:
County: Township: N PLOT INFORMATION Plot Size: 10 m x 10 m = 100 m ²	Range: Section: _	
County: Township: N PLOT INFORMATION Plot Size: ft. Slope:(°) or(%) Aspect:	Range: Section: _	
County: Township: N PLOT INFORMATION Plot Size: I m x / D m = I D m² Elevation: ft. Slope:(°) or (%) Aspect: Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epre	Range: Section: _	
County:	Range: Section: _	
County:	Range: Section: _	
County: Township:N PLOT INFORMATION Plot Size: I	Range: Section: (e.g., N, NE, etc.; LV for level) ession (?)uncertain	Coarse Fragment
County:	Range: Section: (e.g., N, NE, etc.; LV for level) ession (?)uncertain Depth of Layer	Coarse Fragment m Texture [^] Type ^B Volume
County:	Range: Section:	Coarse Fragment om Texture [^] Type ^B Volume
County:	Range: Section:	Coarse Fragment Texture Type Volume Type Com
County:	Range: Section:	Coarse Fragment m Texture ^A Type ^B Volume ^c cm cm cm cm
County:	Company Comp	Coarse Fragment m Texture ^A Type ^B Volume ^c cm cm cm cm
County:	Range: Section:	Coarse Fragment Texture ^A Type ^B Volume ^C cm cm cm cm cm cm
County: Township:N PLOT INFORMATION Plot Size: m x m =	Company Comp	Coarse Fragment Texture ^A Type ^B Volume ^C cm cm cm cm cm cm
County: Township: N PLOT INFORMATION Plot Size: m x ft. Slope: (°) or (%) Aspect: Elevation: ft. Slope: (°) or (%) Aspect: Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)eprecent in the context in t	Range: Section:	Coarse Fragment Texture Type Volume cm cm cm cm cm cm
County: Township: N PLOT INFORMATION Plot Size: m x m =	Range: Section:	Coarse Fragment Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm
County: Township: N PLOT INFORMATION Plot Size: m x m =	Range: Section:	Coarse Fragment Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm
County: Township: N PLOT INFORMATION Plot Size: m x m =	Range: Section:	Coarse Fragment Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm
County: Township:N PLOT INFORMATION Plot Size: ft. Slope:(°) or(%) Aspect: Elevation: ft. Slope:(°) or(%) Aspect: Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)eprecessor SOIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: cm Depth to Gray Colors or Redox Features: cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well (S)omewhat poorly (P)oorly (V)ery poorly drained Height of Moss Hummocks: cm Sphagnum Cover: % Depth of Standing Water: (>) cm PH of Surface Water: t Average Depth to Bedrock: cm	Company Comp	Coarse Fragment Com Texture Type Volume Com
County: Township: N PLOT INFORMATION Plot Size: m x m = m _ m _ m _ m _ m _ m _ m _	Ce.g., N, NE, etc.; LV for level	Coarse Fragment Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm
County: Township: N PLOT INFORMATION Plot Size: ft. Slope: (°) or (%) Aspect: Elevation: ft. Slope: (°) or (%) Aspect: Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epreceded (L)ower (T)oe (T)epreceded (L)owe	Company Comp	Coarse Fragment Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm
County: Township: N PLOT INFORMATION Plot Size: ft. Slope: (°) or (%) Aspect: Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epre SOIL INFORMATION Litter Thickness: cm Litter Type: (L)eaves (N)eedles (G)rass (O)ther Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie mull (W)ormed mull Earthworms Present: (Y)es (N)o Earthworm Rapid Assessment Rank (low → heavy): (1) (2) (3) (4) (5) Depth to Semi-Permeable Layer: cm Depth to Gray Colors or Redox Features: cm Drainage Class: (E)xcessively/Somewhat excessively (W)ell (M)oderately well	Ce.g., N, NE, etc.; LV for level	Coarse Fragment Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm
County: Township: N PLOT INFORMATION Plot Size: ft. Slope: (°) or (%) Aspect: Elevation: ft. Slope: (°) or (%) Aspect: Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epreceded (L)ower (T)oe (T)epreceded (L)owe	Ce.g., N, NE, etc.; LV for level	Coarse Fragment Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm
County: Township: N PLOT INFORMATION Plot Size: m x m =	Company Comp	Coarse Fragment Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm
County: Township: N PLOT INFORMATION Plot Size: m x m =	Company Comp	Coarse Fragment Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm
County: Township: N PLOT INFORMATION Plot Size: m x m = m (°) or (%) Aspect: Elevation: ft. Slope: (°) or (%) Aspect: Topographic Context: (C)rest (U)pper (M)iddle (L)ower (T)oe (F)lat (D)epreceded (D) information Litter Thickness: cm	Company Comp	Coarse Fragment Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm
County:	Company Comp	Coarse Fragment Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm
County: Township: N PLOT INFORMATION Plot Size: m x m =	Company Comp	Coarse Fragmen Texture Type Volume Cm Cm Cm Cm Cm Cm Cm Cm Cm

Basal Area	& Tree Dia	ameters			DBH List: (C)omplete (P)artial
Species	L/D	BA-1	BA-2	Ave.	DBH (cm)

Prism Factor:

Releve-Wide DBH Statistics

Min: ____ Max: ___ Median:__

Notes:

Surveyor(s): S.Milborn	Surveyor's Releve #: 8 Date: 47 01 2016
County: U. Wedicine	Surveyor's Place Name: BP26

ID C.S	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAME	REMARKS
	01-36			1.	W1-3L				C1-30 P. GLANTEL C. DEMITA CMANNESSTIC SPECTON B. INCOMIS C. PRAZGRACILIS S. MICTOLAN DUS C. GTELANA	
Rest.				1.	PIRADILOGIC			3.	A. a. a when	
	C. O. HILLS LALLE DOLL			2	P. ABUILONIC S. ATRUENSIC			3	Cidellita	
<u> </u>				1.	2.800240			9.	CHLAMALIBOSTIC STELCT	
+				2.	W. COSSEPPATUS		Г	1.	BINGWIS	
- -				1.	E. MACULATIA			11.	C. POMEGRACILIS	
				2.	E.WALLETTEN		Г	de	SIMICIBLAYOUS	
$+\dot{-}$				der.	SICIONITORA BICICANTERA E: LAVICATUM E. ARUKUSIS		Г	dejor	C. STRINTIA	
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Life Form	Height	Cov	/er	Sociability	Reliability Code	Selected Remark Codes
Elle Tornic B = broadleaf evergreen D = broadleaf deciduous E = needleleaf evergreen G = graminoids H = forbs L = lichens M = mosses & liverworts	8 > 35m 7 = 20-35m 6 = 10-20m 5 = 5-10m 4 = 2-5m 3 = 0.5-2m 2 = 0.1-0.5m	Group c i p r b	Species 5 75-100% 4 50-75% 3 25-50% 2 5-25% 1-5% <1%	5 = extensive mat 4 = small colonies, broken mat 3 = large group, many plants 2 = small dense clumps 1 = growing singly	0 = variety certain 1 = cf. var./subsp. 2 = species certain 3 = species complex 4 = cf. species 5 = genus certain 6 = cf. genus	DD = dead DY = dying GE = germinating SD = seedling SP = sprout (coppice) FR = fruiting OP = outside plot (<2m)
C = climbers K = stem succulents F = floating-leaved S = submerged X = epiphytes	1 = 0-0.1m		+ <5% cover, r <5% cover,	· ·	7 = unknown	## = specimen collection #

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MINNESOTA DEPARTMENT OF NATURAL RESOURCES RELEVE FORM MAIDNE Division of Ecolonical & Water Resources, 500 Lafayette Road, Box 25, St. Paul, MN 55155

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GENERAL	INFORMATION
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MINDIAK, DIVISION OF ECOLOGICAL & WATER RESOURCES	5, 500 Larayette Road, Box 25, Ot. 1 adi, M		Edited
SENERAL INFORMATION	SITE DATA SHE	EET	Final Scan
DNR RELEVE #			3,
Surveyor(s): SM Water	•		
Surveyor's Releve #: SAMILA TOOL Survey	eyor's Place Name: 🚇 🞾		
Institution: (M)BS (E)CS (N)HP (U)SFS (U) of	of M (O)ther M NV		
Purpose of Releve: (C)lassification (R)are specie	s habitat (M)onitoring ((O)ther)	acum en Hyntani	
Revisit: (Y)es (N)o Original DNR Relevant	ve #:	•	
Date: 15 Month: 406 Year: 201			
		- AND CARGO CONTROL CO	
/EGETATION INFORMATION Vegetation Group: (WU) wooded upland (OU) o	and upland (WW) wooded wetland	hartey page /W/O	
NPC Code (Name): W M & & 3 (00)	beil abiana (** **) wooded wettand	J (OVY) open wettand)
NPC Ranking in Releve:			,
Stand Typical of NPC: (Y)es (N)o (U)ncertain	'n		
If No, identify appropriate modifier: (N)atural distur	rbance (H)uman disturbance (Y)oun	ig stand (<40 yrs) (O)ther	
Releve Typical of Stand: (Y)es (N)o If No, identify appropriate modifier: (H)igher Quality	tv (L)ower Quality (C)anopy Gap (O)ther	
Plot Location in NPC: (F)ar from community bound		and the second s	1
OCATION INFORMATION		Matter and a second	
UTM: 767312E 494 94 44 N (record in NAD83, Zor	_∕ Permanent Marke	er: (N)o (Y)es	
4949644 N (record in NAD83, Zor		acement:	
UTM Accuracy: meters	14	,	
Location Source (G)PS (A)ir photo (T)opo mar	ρ (L)iDAR (O)ther		
County: Hellow Medicine	Township: N R	ange: Section:	QQRT: of QRT:
PLOT INFORMATION Plot Size: m x m x m = 1 m² m² ft. Slope: (°) Topographic Context: (C)rest (U)pper (M)iddlight	or (%) Aspect:		
SOIL INFORMATION		•	
Litter Thickness: cm		Depth of Layer	Coarse Fragments
Litter Type: (L)eaves (N)eedles (G)rass ((O)ther	Top Bottom	· (
Humus Thickness: cm Humus Type: (M)or (M)oder (P)rairie muli	(W)ormed mult	(1: 0 cm (>) c	
Earthworms Present: (Y)es (N)o	(11)office men	2: cm (>) c	m
Earthworm Rapid Assessment Rank (low -> hear		δ 3:cm (>)c	m
Depth to Semi-Permeable Layer: cm		em (>)c	m
Depth to Gray Colors or Redox Features:		[☐] 5:cm (>)c	m
Drainage Class: (E)xcessively/Somewhat excessiv		6:cm (>)c	m <u></u>
(S)omewhat poorly (P)oorly (V) Height of Moss Hummocks: cm	ery poorly drained	7:cm (>)c	m
Sphagnum Cover: %		\8: cm (>)c	m
Depth of Standing Water: (>) cm		A S = sand, LS = loamy sand, SL = san	dy loam, L = loam, SIL = silt loam, SCL = CL = silty clay loam, SC = sandy clay, SIC = silty
pH of Surface Water: ±		clay, C = clay, RO = rock, PE = peat	
Average Depth to Bedrock: cm		If origin of peat or mucky peat is known = sedge	wn, add suffix to two-letter code: -m ≔ moss, -s
Exposed Rock:%		B Gr = gravel, Co = cobbles, St = stone	s. Bo = baulders
Rock Group: (F)elsic (M)afic (C)alcareous (S)ar Rock Type:	ndstone (S)ioux quartzite (O)ther	C 0 = <15%, 1 = 15-35%, 2 = 35-60%,	
	2)14 (D)224 (M)4-1- (D)224		F.
General Soil Texture: (C)lay (L)oam (S)and (S) JIIT (T) OCK (IVI) UCK (P) eat	061. 7	1 0 1
Amindent forther downsto	ere with unit	ler is grammia	I dominate in the ope

Basal Area	& Tree Di	ameters	DBH List: (C)omplete (P)artial		
Species	L/D	BA-1	BA-2	Ave.	DBH (cm)
				<u> </u>	
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	-				

Prism Factor: _

Releve-Wide DBH Statistics

Min:	Max:	Median:

			`
Photos	Taken:	(Y)es	(N)o
	١.		.2

Surveyor(s): S.Milburn	Surveyor's Releve #: SAMIL-OOL Date: 2015 (2015
County: Yellow Wesline	Surveyor's Place Name: BP12

ID	C.S	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAME	REMARKS	ID	c.s	SPECIES NAME	REMARKS
		D3-4P D. Swithers			 	41-3r		F	T .	G1-3L	
	3.	Q. Switness			1.	SICULANTER			١.	5. DUBLEGI C. MYTERICI DIN S. PALLIDUS A. GLENNEUM A. GLENNEUM	
					1	E. MALLLARAM V. MASTATA			2	CINUTERRICISIS	
		D1-24		-	١.	V.Nastota			بعد	S. PALLIAUS	
	ŕ.	C. STOLOWIRSON		Г	4	P. LANGELLANCE			2	D. GLEDWILLIAM	
					4.	F. VIRGINIANA E. ARUSTISK			2.	ALGUMANTERS	
					4	E. DOUGHELL			2.		
					1.	V. NEPROPHYLLA			1.	G STRIGHTA S. PRETIHATIA	
					Π.	P. AURES			4	S. PLETIHONA	
					1.	E. LEDTAPHYLLUM			T .		
					1	LISIANILITICA			Π.		
					de	S. ETELLOWES			T .		
					1.	SICHWANNESSIE				,	
					+	V. NEPROPHYLLA P. AURED B. LEPTOPHYLLUM L: SIAILUTICA S. EVILOPET S. CHMANTASS H. AUTUMBACE L. ASPEVR					
					ф.	L. ASPENZ			١.	•	
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Life Form	Height	Co	/er	Sociability	Reliability Code	Selected Remark Codes		
B = broadleaf evergreen	8 >35m	Group	Species	5 = extensive mat	0 = variety certain	DD = dead		
D = broadleaf deciduous	7 = 20-35m	Ċ	5 75-100%	4 = small colonies, broken mat	1 = cf. var./subsp.	DY = dying		
E = needleleaf evergreen	6 = 10-20m	i	4 50-75%	3 = large group, many plants	2 = species certain	GE = germinating		
G = graminoids	5 = 5-10m	р	3 25-50%	2 = small dense clumps	3 = species complex	SD = seedling		
H = forbs	4 = 2-5m	r	2 5-25%	1 = growing singly	4 = cf. species	SP = sprout (coppice)		
L = lichens	3 = 0.5-2m	b	1-5%		5 = genus certain	FR = fruiting		
M = mosses & liverworts	2 = 0.1- 0.5m	a	<1%		6 = cf. genus	OP = outside plot (<2m)		
C = climbers	1 = 0.0.1m		Abundance		7 = unknown	## = specimen collection #		
K = stem succulents			1 <5% cover, n	nany individuals				
F = floating-leaved				ew (2-20) individuals				
S = submerged			r <5% cover, s	ingle ,		•		
X = epiphytes						•		