

APPENDIX B TABLES



TABLE B-1 ADDITIONAL WATERBODIES SURVEYED IN 2024 WITHIN THE PROJECT SURVEY AREA

Unique ID (Waterbody			Data Point Coo	rdinates	Linear feet Within the	Milepost	Page Number
Name)			Latitude	Longitude	Survey Area ^a (feet)		in Appendix A (Map Book)
srig001e	Ditch	Ephemeral	46.348641	-96.653321		59	
srig002e	Ditch	Ephemeral	46.552403	-96.916047		32.8	
scae003e	Ditch	Ephemeral	46.644705	-96.978624		23.3	
sria002e	Ditch	Ephemeral	46.485731	-96.854002		39.9	

^a Linear feet value represents the length of the feature through the entire survey corridor and does not represent the Project impacts.



TABLE B-2 SURVEY AREAS VISITED APRIL 2024

Milepost/ Milepost Range	Variance Number ^a	Notes
59	V14	Additional workspace/footprint for Wahpeton Town Boarder Station (survey polygon and buffer 150' from edge of polygon)
57-57.5	-	Reroute to edge of Krause tracts
52.9-53.9	V07	Reroute (survey corridor 150' on either side of pipeline alignment)
5354.4	V07	Reroute (survey corridor 150' on either side of pipeline alignment)
51.9	V51	Access road along CR 81 (survey corridor 25' on either side of access road polygon)
43.9-44.4	V57	CL shift to east side of 172nd Ave. SE (survey corridor 150' on either side of pipeline alignment)
40.5	V45	Access road along 64th St. SE
39.9	V43/V44	Access roads along 64th St.
39.5	V60	Widened Access Road, workspace extended to west along 170th Ave. SE
36.2	V42	Access road along 168th Ave. SE
32.6-32.8	V12	CL shift to the east (survey corridor 150' on either side of pipeline alignment)
32.8-32.9	V12	CL shift to the east (survey corridor 150' on either side of pipeline alignment)
32.9-33.0	V12	CL shift to the east (survey corridor 150' on either side of pipeline alignment)
27.7	V40	Access road off 167th Ave. SE (survey corridor 25' on either side of access road polygon)
24.7	V34	Access road off 167th Ave. SE (survey corridor 25' on either side of access road polygon)
24.8	V56	Small area for additional access off 165th Ave. SE
24.1	V32	Access off 167th Ave. SE
23.3-23.6	V31	Workspace added north of 53rd St. SE (survey corridor 25' on either side of access road polygon)
5.2-5.3	V59	Workspace extends west outside of original survey corridor and Cennex reroute
5.1	V16	Access road shift to the south off 165th Ave. SE



Milepost/ Milepost Range	Variance Number ^a	Notes
1.4	V15	Access road off 163rd Ave. SE (survey corridor 25' on either side of access road polygon)

^a Variance numbers assigned to locations for ERM and WBI Energy to track changes to workspace.



APPENDIX C WETLAND AND WATERBODY DATA SHEETS AND PHOTO LOG

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Great Plains Region

See ERDC/EL TR-10-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Applicant/Owner: WBI State: ND Sampling Point: norig001 Investigator(s): CM/NG Section, Township, Range: S12 T133N R48W Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 1 Subregion (LRR/MLRA): LRR F, MLRA 56A Lat: 46.347636 Long: -96.654666 Datum: WGS84 Soil Map Unit Name: Antler clay loam, 0 to 2 percent slopes NWI classification: Upland Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation X , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No X
Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 1 Subregion (LRR/MLRA): LRR F, MLRA 56A Lat: 46.347636 Long: -96.654666 Datum: WGS84 Soil Map Unit Name: Antler clay loam, 0 to 2 percent slopes NWI classification: Upland Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation X , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No X
Subregion (LRR/MLRA): LRR F, MLRA 56A Lat: 46.347636 Long: -96.654666 Datum: WGS84 Soil Map Unit Name: Antler clay loam, 0 to 2 percent slopes NWI classification: Upland Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation X , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No X
Soil Map Unit Name: Antler clay loam, 0 to 2 percent slopes Are climatic / hydrologic conditions on the site typical for this time of year? Are Vegetation X , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No X
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation X , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No X
Are Vegetation X , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No X
_
_
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No X Is the Sampled Area
Hydric Soil Present? Yes No X within a Wetland? Yes No X
Wetland Hydrology Present? Yes No X
Remarks: Upland point located at a potential NWI feature within an agricultural field. Historical imagery indicates this area has been an agricultural field for ove 2 decades. The field was tilled at the time of survey with evidence of the prior crop being corn.
VEGETATION – Use scientific names of plants.
Absolute Dominant Indicator Tree Stratum (Plot size: 30) % Cover Species? Status Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3 Total Number of Dominant Species
4 Across All Strata:(B)
=Total Cover Percent of Dominant Species That
Sapling/Shrub Stratum (Plot size: 15) Are OBL, FACW, or FAC: (A/B
1. Prevalence Index worksheet:
3. Total % Cover of: Multiply by:
4. OBL species x 1 =
5 FACW species x 2 =
=Total Cover FAC species x 3 =
Herb Stratum (Plot size: 5) FACU species x 4 =
1 UPL species x 5 = 2. Column Totals: (A) (B)
Describes a laday DA
4
5. Hydrophytic Vegetation Indicators:
61 - Rapid Test for Hydrophytic Vegetation
7 2 - Dominance Test is >50%
8 3 - Prevalence Index is ≤3.0 ¹
9 4 - Morphological Adaptations ¹ (Provide supporting
data in Remarks or on a separate sheet)
=Total Cover Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 30) 1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Hydrophytic =Total Cover Vegetation
% Bare Ground in Herb Stratum 100 Present? Yes No X
Remarks:

SOIL Sampling Point: norig001

Depth	Matrix		Red	dox Featur	es					
(inches)	Color (moist)	% C	olor (moist)	%_	Type ¹	Loc ²	Textu	re	Remarks	
0-18	10YR 2/1	100								
								·		
								•		
1Tupo: C-C	oncentration, D=Deplet	ion PM-Por	duced Metrix	CS-Covo	rod or Co	noted S	and Crains	² Location: PL=Po	ro Lining M-Mot	riv
	Indicators: (Applicabl					Jaleu S	and Grains.	Indicators for Pro		
Histosol		e to all LNN	s, unicss or	Sandy G	-	atriv (S1	1	1 cm Muck (A	=	. 30115 .
	,		_	_	-		')			
	oipedon (A2)		_	_	edox (S5			•	epressions (F16)	
	Black Histic (A3) Hydrogen Sulfide (A4) Stripped Matrix (S6 Loamy Mucky Mine							•	itside of MLRA	2 & 73)
	` '		_	_ ′	•	,	,	Reduced Vert	` '	
Stratified Layers (A5) (LRR F) 1 cm Muck (A9) (LRR F, G, H) Loamy Gleyed Matrix Depleted Matrix (F3)							-)	Red Parent M		20)
		A44\	_	_ '	`	,			Dark Surface (F2	(2)
	d Below Dark Surface (A11)		_	ark Surfa			Other (Explain	i in Remarks)	
	ark Surface (A12) lucky Mineral (S1)		_		d Dark Su epressio	,	-7)			
	Mucky Peat or Peat (S2) (I BB C H	, <u> </u>	_	ins Depr		(E16)	³ Indicators of hydr	onhytic vogotatic	n and
	ucky Peat of Peat (S2)		, –	_	RA 72 & 7			· ·	logy must be pre	
	icky real of real (33)	(LKK F)		(IVILIT	A 12 0. 1	3 OI LI	KK II)		ed or problemati	
Restrictive I	Layer (if observed):					l		diffect dictars	od or problemati	<u>. </u>
Type:	_ayo: (oboo: roa):									
Depth (ir	nches):						Hydric Soil	Present?	Yes	No X
		_					• • • • • • •			
Remarks:	o depression or soil cra	acks at the ur	oland point 9	Soils are da	ark with n	o hvdrid	: indicators			
	o dop. 000.0 0. 00 0.0		, , , , , , , , , , , , , , , , , , ,	20110 010 01						
HYDROLO)GY									
Wetland Hyd	drology Indicators:	a is required:	check all the	at apply)				Secondary Indicators	(minimum of two	required
Wetland Hyd	drology Indicators: cators (minimum of one	e is required;						Secondary Indicators		required
Wetland Hyd Primary Indic Surface	drology Indicators: cators (minimum of one Water (A1)	e is required;	Salt Cru	st (B11)	os (B13)			Surface Soil Crac	ks (B6)	•
Wetland Hyd Primary India Surface High Wa	drology Indicators: cators (minimum of one Water (A1) ater Table (A2)	e is required;	Salt Cru Aquatic	st (B11) Invertebrat	` ,			Surface Soil Crack Sparsely Vegetate	ks (B6) ed Concave Surfa	•
Wetland Hyd Primary Indic Surface High Wa Saturatio	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3)	e is required;	Salt Cru Aquatic Hydroge	st (B11) Invertebrat n Sulfide (Odor (C1))		Surface Soil Crack Sparsely Vegetate Drainage Patterns	ks (B6) ed Concave Surfa (B10)	ice (B8)
Wetland Hyd Primary Indic Surface High Wa Saturatic Water M	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1)	e is required;	Salt Cru Aquatic Hydroge Dry-Sea	st (B11) Invertebraten Sulfide (son Water	Odor (C1) Table (C) (2)	- - -	Surface Soil Crack Sparsely Vegetate Drainage Patterns Oxidized Rhizospl	ks (B6) ed Concave Surfa (B10)	ice (B8)
Wetland Hyd Primary India Surface High Wa Saturatic Water M Sedimer	cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	e is required;	Salt Cru Aquatic Hydroge Dry-Sea Oxidized	st (B11) Invertebraten Sulfide (son Water I Rhizosph	Odor (C1) Table (C eres on L) (2)	- - -	Surface Soil Crack Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled)	ks (B6) ed Concave Surfa (B10) neres on Living R	ice (B8)
Wetland Hyd Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) oosits (B3)	e is required;	Salt Cru Aquatic Hydroge Dry-Sea Oxidized	st (B11) Invertebraten Sulfide (son Water I Rhizosph e not tilled	Odor (C1) Table (C eres on L) ≎2) ₋iving R	- - -	Surface Soil Crack Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows	ks (B6) ad Concave Surfa (B10) heres on Living R	oots (C3
Wetland Hyden Primary India Surface High Was Saturation Water M Sedimer Drift Dep Algal Ma	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) cosits (B3) at or Crust (B4)	e is required;	Salt Cru Aquatic Hydroge Dry-Sea Oxidized (where Presence	st (B11) Invertebraten Sulfide Coson Water Rhizosphe not tilled	Odor (C1) Table (Ceres on Let) Ced Iron () ≎2) ₋iving R	- - -	Surface Soil Crack Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows Saturation Visible	ks (B6) ed Concave Surfa (B10) heres on Living R (C8) on Aerial Imager	oots (C3
Primary Indice Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5)		Salt Cru Aquatic Hydroge Dry-Sea Oxidizec (where Presence	st (B11) Invertebraten Sulfide Coson Water Rhizosphe not tilled cok Surface	Odor (C1) Table (Coeres on Lot) Coed Iron (C7)) ≎2) ₋iving R	- - -	Surface Soil Cract Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows Saturation Visible Geomorphic Posit	ks (B6) ed Concave Surfa (B10) heres on Living R (C8) on Aerial Imager ion (D2)	oots (C3
Wetland Hyd Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Ima		Salt Cru Aquatic Hydroge Dry-Sea Oxidizec (where Presence	st (B11) Invertebraten Sulfide Coson Water Rhizosphe not tilled	Odor (C1) Table (Coeres on Lot) Coed Iron (C7)) ≎2) ₋iving R	- - -	Surface Soil Crack Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows Saturation Visible Geomorphic Posit FAC-Neutral Test	ks (B6) ed Concave Surfa (B10) heres on Living R (C8) on Aerial Imager ion (D2) (D5)	oots (C3
Wetland Hyde Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Water-S	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Imatained Leaves (B9)		Salt Cru Aquatic Hydroge Dry-Sea Oxidizec (where Presence	st (B11) Invertebraten Sulfide Coson Water Rhizosphe not tilled cok Surface	Odor (C1) Table (Coeres on Lot) Coed Iron (C7)) ≎2) ₋iving R	- - -	Surface Soil Cract Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows Saturation Visible Geomorphic Posit	ks (B6) ed Concave Surfa (B10) heres on Living R (C8) on Aerial Imager ion (D2) (D5)	oots (C3
Wetland Hyden Primary Indice Surface High Water Mater Steld Observation	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Imatained Leaves (B9) vations:	agery (B7)	Salt Cru Aquatic Hydroge Dry-Sea Oxidized (where Presence Thin Mu Other (E	st (B11) Invertebrat in Sulfide (son Water if Rhizosph e not tilled e of Reduc ck Surface explain in R	Odor (C1) Table (Ceres on Let) ced Iron (C7) cemarks)) ≎2) ₋iving R	- - -	Surface Soil Crack Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows Saturation Visible Geomorphic Posit FAC-Neutral Test	ks (B6) ed Concave Surfa (B10) heres on Living R (C8) on Aerial Imager ion (D2) (D5)	oots (C3
Wetland Hyderimary Indice Surface High Water Maged Maged Maged Maged Maged Maged Maged Maged Mater-Striebe Mater-S	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Imatained Leaves (B9) vations: er Present? Yes	agery (B7)	Salt Cru Aquatic Hydroge Dry-Sea Oxidized (where Presence Thin Mu Other (E	st (B11) Invertebrat in Sulfide C son Water if Rhizosph e not tillec e of Reduc ck Surface explain in R	Odor (C1) Table (C eres on L) ced Iron ((C7) emarks)) ≎2) ₋iving R	- - -	Surface Soil Crack Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows Saturation Visible Geomorphic Posit FAC-Neutral Test	ks (B6) ed Concave Surfa (B10) heres on Living R (C8) on Aerial Imager ion (D2) (D5)	oots (C3
Wetland Hyderimary India Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Water-S Field Obsert Surface Water	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Imatained Leaves (B9) vations: er Present? Yes Present? Yes	agery (B7)	Salt Cru Aquatic Hydroge Dry-Sea Oxidized (where Presence Thin Mu Other (E	st (B11) Invertebrat in Sulfide C son Water if Rhizosph e not tillec e of Reduc ck Surface explain in R Depth (ii	Odor (C1) Table (C eres on L) ced Iron ((C7) emarks) nches):nches): _) ≎2) ₋iving R	oots (C3)	Surface Soil Crack Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows Saturation Visible Geomorphic Posit FAC-Neutral Test Frost-Heave Hum	ks (B6) ad Concave Surfa (B10) heres on Living R (C8) on Aerial Imager ion (D2) (D5) mocks (D7) (LRF	oots (C3 y (C9)
Wetland Hyderimary Indices Surface High Water Management Sedimer Drift Dependent Algal Management Inundation Water-S Field Observation Surface Water Table Saturation Provinces Surface Provinces Surface Water Table Saturation Provinces Surface Provinces Surface Provinces Surface Water Table Saturation Provinces Surface Water Table Saturation Provinces Surface Water Table	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Imatained Leaves (B9) vations: er Present? Yes Present? Yes resent? Yes	agery (B7)	Salt Cru Aquatic Hydroge Dry-Sea Oxidized (where Presence Thin Mu Other (E	st (B11) Invertebrat in Sulfide C son Water if Rhizosph e not tillec e of Reduc ck Surface explain in R	Odor (C1) Table (C eres on L) ced Iron ((C7) emarks) nches):nches): _) ≎2) ₋iving R	oots (C3)	Surface Soil Crack Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows Saturation Visible Geomorphic Posit FAC-Neutral Test	ks (B6) ad Concave Surfa (B10) heres on Living R (C8) on Aerial Imager ion (D2) (D5) mocks (D7) (LRF	oots (C3 y (C9)
Wetland Hyderimary Indice Surface High Water Management Sedimer Drift Dep Algal Management Inundation Water-Sedimer Surface Water-Sedimer Surface Water Table Saturation Per (includes cap	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Imatained Leaves (B9) vations: are Present? Yes resent? Yes resent? Yes resent? Yes	agery (B7)	Salt Cru Aquatic Hydroge Dry-Sea Oxidized (where Presence Thin Mu Other (E	st (B11) Invertebrat in Sulfide (son Water d Rhizosph e not tilled e of Reduc ck Surface explain in R Depth (ii Depth (iii	Odor (C1) Table (Ceres on Li) ced Iron ((C7) cemarks) nches): _ nches): _ nches): _) :2) Living R C4)	oots (C3)	Surface Soil Cract Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows Saturation Visible Geomorphic Posit FAC-Neutral Test Frost-Heave Hum	ks (B6) ad Concave Surfa (B10) heres on Living R (C8) on Aerial Imager ion (D2) (D5) mocks (D7) (LRF	oots (C3 y (C9)
Wetland Hyderimary Indice Surface High Water Management Sedimer Drift Dep Algal Management Inundation Water-Sedimer Surface Water-Sedimer Surface Water Table Saturation Per (includes cap	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Imatained Leaves (B9) vations: er Present? Yes Present? Yes resent? Yes	agery (B7)	Salt Cru Aquatic Hydroge Dry-Sea Oxidized (where Presence Thin Mu Other (E	st (B11) Invertebrat in Sulfide (son Water d Rhizosph e not tilled e of Reduc ck Surface explain in R Depth (ii Depth (iii	Odor (C1) Table (Ceres on Li) ced Iron ((C7) cemarks) nches): _ nches): _ nches): _) :2) Living R C4)	oots (C3)	Surface Soil Cract Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows Saturation Visible Geomorphic Posit FAC-Neutral Test Frost-Heave Hum	ks (B6) ad Concave Surfa (B10) heres on Living R (C8) on Aerial Imager ion (D2) (D5) mocks (D7) (LRF	oots (C3 y (C9)
Wetland Hyderimary Indice Surface High Water Management Sedimer Drift Dep Algal Management Inundation Water-Sedimer Surface Water-Sedimer Surface Water Table Saturation Per (includes cap	drology Indicators: cators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Imatained Leaves (B9) vations: are Present? Yes resent? Yes resent? Yes resent? Yes	agery (B7)	Salt Cru Aquatic Hydroge Dry-Sea Oxidized (where Presence Thin Mu Other (E	st (B11) Invertebrat in Sulfide (son Water d Rhizosph e not tilled e of Reduc ck Surface explain in R Depth (ii Depth (ii	Odor (C1) Table (Ceres on Li) ced Iron ((C7) cemarks) nches): _ nches): _ nches): _) :2) Living R C4)	oots (C3)	Surface Soil Cract Sparsely Vegetate Drainage Patterns Oxidized Rhizospl (where tilled) Crayfish Burrows Saturation Visible Geomorphic Posit FAC-Neutral Test Frost-Heave Hum	ks (B6) ad Concave Surfa (B10) heres on Living R (C8) on Aerial Imager ion (D2) (D5) mocks (D7) (LRF	oots (C3



norig001 facing North



norig001 facing South



norig001 facing East



norig001 facing West

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Great Plains Region

See ERDC/EL TR-10-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Wahpeton Expansion Project		City/County: Richlar	nd	Sampling Date:	4/18/2024
Applicant/Owner: WBI			State: ND	Sampling Point:	norig002
Investigator(s): CM/NG	S	ection, Township, R	ange: S1 T133N R48W		
Landform (hillside, terrace, etc.): Flat	Local	relief (concave, con	vex, none): Concave	Slop	oe (%):2
Subregion (LRR/MLRA): LRR F, MLRA 56A	Lat: 46.369076	Si [*]	Long: <u>-96.654666</u>	Datum:	WGS84
Soil Map Unit Name: Ryan-Fargo silty clays, 0 to 1 pe	ercent slopes		NWI classif	ication: Upland	
Are climatic / hydrologic conditions on the site typical	for this time of year	r? Yes X	No (If no, exp	lain in Remarks.)	
Are Vegetation X , Soil X , or Hydrology X	significantly disturb	oed? Are "Normal	Circumstances" present?	Yes No	o <u>X</u>
Are Vegetation, Soil, or Hydrology	_naturally problema	itic? (If needed, e	xplain any answers in Rer	narks.)	
SUMMARY OF FINDINGS – Attach site n	nap showing sa	ampling p X			
	No X No	Is the Sampled a		No X	
	No X				
Remarks: Potential NWI located within an agricultural ditch adpresumably for drain tile discharge and/or general management.	naintenance.	SE. At the time of s	urvey there was an excav	ator actively wideni	ing the ditch,
VEGETATION – Use scientific names of			1		
<u>Tree Stratum</u> (Plot size: 30)		ninant Indicator ecies? Status	Dominance Test wor	ksheet:	
1. 2.			Number of Dominant S Are OBL, FACW, or F	•	0 (A)
3. 4.			Total Number of Domi Across All Strata:	nant Species	1 (B)
Sapling/Shrub Stratum (Plot size: 15	=Tota _)	I Cover	Percent of Dominant S Are OBL, FACW, or F	•	0.0% (A/B)
2.			Prevalence Index wo	rksheet:	
3			Total % Cover of:	Multiply by	
4				x 1 = x 2 =	0
J	=Tota	I Cover	FAC species 0		0
Herb Stratum (Plot size: 5)				x 4 =	0
1. Bromus inermis	30	res UPL	UPL species 30	0 x 5 = 1	150
2.			Column Totals: 30	` ′	150 (B)
3. 4.			Prevalence Index = B	/A = 5.00)
5			Hydrophytic Vegetati	on Indicators:	
6.				Hydrophytic Vegeta	ation
7.			2 - Dominance Te	st is >50%	
8.			3 - Prevalence Inc	lex is ≤3.0¹	
9	. <u> </u>			Adaptations ¹ (Provi	
10	- 			s or on a separate	
Woody Vine Stratum (Diet size) 20	=Tota	I Cover	- 	ophytic Vegetation ¹	` ' '
Woody Vine Stratum (Plot size: 30 1.	_) 		¹ Indicators of hydric so be present, unless dis	•	• • • • • • • • • • • • • • • • • • • •
% Bare Ground in Herb Stratum70	=Tota	I Cover	Hydrophytic Vegetation Present? Yes	No. V	
			Fieselli, 168	No_X	
Remarks:	side of the ditch with	no ovidonce of by	drophytic vogotation		

SOIL Sampling Point: norig002

Profile Desc Depth	ription: (Descri Matri			cument th lox Featur		ator or c	confirm the a	absence of indica	tors.)	
(inches)	Color (moist	_	Color (moist)	%	Type ¹	Loc ²	Textu	ıre	Remarks	
0-18	10YR 2/1	100	(11010)		-7					
	-									
	-									
¹Type: C=Co	ncentration, D=[Depletion, RM=F	Reduced Matrix,	CS=Cove	ered or C	oated S	and Grains.	² Location: PL	=Pore Lining, M=	=Matrix.
	ndicators: (App								r Problematic H	
Histosol	(A1)			Sandy G	Sleyed M	atrix (S4	!)	1 cm Muc	k (A9) (LRR I, J)	
Histic Ep	ipedon (A2)		<u> </u>	Sandy F	Redox (S	5)		High Plair	ns Depressions (F16)
Black His	Black Histic (A3) Stripped Matrix (S6)							(LRR	H outside of ML	RA 72 & 73)
Hydroger	Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1)								Vertic (F18)	
Stratified Layers (A5) (LRR F) Loamy Gleyed Matrix (F2)									nt Material (F21)	
1 cm Mu	ck (A9) (LRR F,	G, H)		_ Depleted	d Matrix	(F3)		Very Sha	low Dark Surface	e (F22)
	Depleted Below Dark Surface (A11) Redox Dark Surface (F6)								plain in Remarks	5)
	rk Surface (A12)				d Dark S	,	,			
	ucky Mineral (S1			_	Depression			31	haratara la attara ara	tation and
	lucky Peat or Pe		, H) <u> </u>		ains Depr				hydrophytic vege	
5 cm iviu	cky Peat or Peat	(53) (LRR F)		(IVIL	RA 72 & '	/3 Of LF	KK H)		ydrology must be sturbed or proble	
Restrictive L	ayer (if observe	ed):						unicss dic	sturbed or problem	natio.
Type:	, (0									
Depth (in	ches):						Hydric Soi	Il Present?	Yes	No
Remarks:						ı				
rtomanto.										
HYDROLO	GY									
Wetland Hyd	Irology Indicato	ors:								
Primary Indic	ators (minimum	of one is require	ed; check all tha	t apply)				Secondary Indicat	ors (minimum of	two required)
Surface \	Nater (A1)		Salt Crus	st (B11)			,	Surface Soil C	Cracks (B6)	
High Wa	ter Table (A2)		Aquatic I	nvertebra	tes (B13))	,	Sparsely Veg	etated Concave S	Surface (B8)
Saturatio	n (A3)		Hydroge	n Sulfide (Odor (C1)		Drainage Patt	erns (B10)	
Water Ma	arks (B1)		Dry-Seas	son Water	Table (0	C2)	,	Oxidized Rhiz	ospheres on Livi	ng Roots (C3)
Sedimen	t Deposits (B2)		Oxidized	Rhizosph	eres on	Living R	oots (C3)	(where tille	d)	
	osits (B3)		•	not tilled	•			Crayfish Burro	` '	
	t or Crust (B4)			e of Reduc		(C4)			ible on Aerial Im	agery (C9)
	osits (B5)			ck Surface			•	Geomorphic F		
	n Visible on Aer		Other (E	xplain in R	Remarks))		FAC-Neutral	` ,	
wvater-St	ained Leaves (B	9)						Frost-Heave F	Hummocks (D7)	LRR F)
Field Observ										
Surface Water		Yes	No X		nches): _					
Water Table		Yes	No X		nches):		\ \w_====	I badwala B	V	Na V
Saturation Pr		Yes	No X	Depth (i	nches):_		Wetland	Hydrology Prese	nt? Yes	NoX
(includes cap			oltorio e malli e il	ا ما ما ما	m=======	a le == -	tiona) it :	labla		
Describe Rec	corded Data (stre	earn gauge, mor	nitoring well, aer	iai pnotos	, previou	s inspec	tions), if avai	iable:		
Remarks:										
	ts of surface wat	ter nresent as a	direct result of r	ecent ner	cinitation	1				



norig002 facing North



norig002 facing South



norig002 facing East



norig002 facing West

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Great Plains Region

See ERDC/EL TR-10-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Wahpeton Expansion Project	City/County: Richla	nd	Sampling Date: <u>4/18/2024</u>
Applicant/Owner: WBI		State: ND	Sampling Point: norig003
Investigator(s): CM/NG	Section, Township, R	ange: S1 T133N R48W	
Landform (hillside, terrace, etc.): Flat	Local relief (concave, cor	nvex, none): Concave	Slope (%):2
Subregion (LRR/MLRA): LRR F, MLRA 56A	Lat: 46.365254	Long: <u>-96.673234</u>	Datum: WGS84
Soil Map Unit Name: Ryan-Fargo silty clays, 0 to 1	percent slopes	NWI classifi	cation: Upland
Are climatic / hydrologic conditions on the site typical	al for this time of year? Yes X	No (If no, exp	lain in Remarks.)
Are Vegetation X , Soil X , or Hydrology X		<u> </u>	
Are Vegetation, Soil, or Hydrology		explain any answers in Ren	
SUMMARY OF FINDINGS – Attach site			
Hydrophytic Vegetation Present? Yes	No X Is the Sampled	Area	
	No X within a Wetlan	d? Yes	No X
Wetland Hydrology Present? Yes	No <u>X</u>		
Remarks: Potential NWI located within an agricultural ditch a presumably for drain tile discharge and/or general		survey there was an excav	ator actively widening the ditch,
VEGETATION – Use scientific names o	of plants.		
Tree Stratum (Plot size: 30)	Absolute Dominant Indicator % Cover Species? Status	Dominance Test wor	ksheet:
1. 2.		Number of Dominant S Are OBL, FACW, or FA	
3.		Total Number of Domi	nant Species 1 (B)
Sapling/Shrub Stratum (Plot size: 15	=Total Cover	Percent of Dominant S Are OBL, FACW, or FA	Species That
2.		Prevalence Index wo	 rksheet:
3.		Total % Cover of:	Multiply by:
4.		OBL species 0	x 1 =0
5		FACW species 0	x 2 =0
	=Total Cover	FAC species 0	x 3 =0
Herb Stratum (Plot size: 5	oo v	FACU species 0	
1. Bromus inermis 2.	30 Yes UPL	UPL species 30 Column Totals: 30	
		Column Totals: 30 Prevalence Index = B	(//
4.		Trevalence mack = b	7.1
5.		Hydrophytic Vegetati	on Indicators:
6.		1 - Rapid Test for	Hydrophytic Vegetation
7.		2 - Dominance Te	st is >50%
8.		3 - Prevalence Ind	ex is ≤3.0 ¹
9			Adaptations ¹ (Provide supporting
10			s or on a separate sheet)
	=Total Cover	Problematic Hydro	phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 30	_)		oil and wetland hydrology must
1 2.		be present, unless dist	urbed or problematic.
<u> </u>	=Total Cover	Hydrophytic	
% Bare Ground in Herb Stratum 70		Vegetation Present? Yes	NoX
Remarks: Grasses were present in a dormant state along the	e side of the ditch with no evidence of hy	drophytic vegetation.	

SOIL Sampling Point: norig003

Profile Desci	ription: (Descrit Matrix	_		cument th lox Featur		ator or c	confirm the a	absence of indica	itors.)	
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Type ¹	Loc ²	Textu	ıre	Remarks	
0-18	10YR 2/1	100	(,		-7					
	-									
¹ Type: C=Co	ncentration, D=D	epletion. RM=F	Reduced Matrix.	CS=Cove	ered or C	oated S	and Grains.	² Location: Pl	_=Pore Lining, M=	=Matrix.
	ndicators: (Appl	-							r Problematic H	
Histosol			•	Sandy G	-	atrix (S4	!)		ck (A9) (LRR I, J)	
	ipedon (A2)			_	Redox (S		,		ns Depressions (
Black His				_ ′	Matrix (,			H outside of ML	,
	Sulfide (A4)			Loamy N	Mucky Mi	ineral (F	1)	Reduced	Vertic (F18)	ŕ
Stratified Layers (A5) (LRR F) Loamy Gleyed Matrix (F2)								Red Pare	ent Material (F21)	
1 cm Mu	1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3)								llow Dark Surface	e (F22)
Depleted	Below Dark Surfa	ace (A11)		Redox D	Oark Surf	ace (F6))	Other (Ex	κplain in Remarks)
Thick Da	rk Surface (A12)			 Depleted	d Dark S	urface (I	F7)			
Sandy M	ucky Mineral (S1)			Redox D	Depression	ons (F8)				
2.5 cm M	lucky Peat or Pea	t (S2) (LRR G,	, H)	High Pla	ains Depr	ressions	(F16)	³ Indicators of	hydrophytic vege	tation and
5 cm Mu	cky Peat or Peat	(S3) (LRR F)		(MLF	RA 72 &	73 of LF	RR H)	wetland h	nydrology must be	e present,
								unless di	sturbed or proble	matic.
Restrictive L	ayer (if observe	d):								
Type:			_							
Depth (in	ches):		_				Hydric Soi	Il Present?	Yes	NoX
Remarks:										
HYDROLO	GY									
Wetland Hyd	Irology Indicator	s:								
-	ators (minimum c	of one is require						Secondary Indica		two required)
Surface \	Water (A1)		Salt Crus					Surface Soil (
	ter Table (A2)			nvertebra		•			etated Concave S	Surface (B8)
Saturatio				n Sulfide (Drainage Pat		
Water Ma				son Water	,	,			zospheres on Livi	ng Roots (C3)
	t Deposits (B2)			Rhizosph		Living R	oots (C3)	(where tille	-	
	osits (B3)		•	not tilled	•			Crayfish Burr	` '	
	t or Crust (B4)			e of Reduc		(C4)			sible on Aerial Im	agery (C9)
Iron Depo	, ,			ck Surface				Geomorphic		
	n Visible on Aeria		Other (Ex	xplain in R	Remarks))		FAC-Neutral	` ,	
Water-St	ained Leaves (B9	9)					•	Frost-Heave	Hummocks (D7) (LRR F)
Field Observ	ations:									
Surface Water	er Present?	Yes	No X	Depth (i	nches): _					
Water Table		Yes	No X		nches):		1			
Saturation Pr		Yes	No X	Depth (i	nches):		Wetland	Hydrology Prese	ent? Yes	NoX
(includes cap							1			
Describe Rec	corded Data (strea	am gauge, mor	nitoring well, aeri	al photos	, previou	s inspec	tions), if avai	lable:		
Domorko										
Remarks:	ts of surface water	er nresent as a	direct result of r	ecent ner	cinitation	1				



norig003 facing North



norig003 facing South



norig003 facing East



norig003 facing West

Waterbody Data Sheet

Description										
Project Name:					Date:			Waterbody S	urvey ID:	
State:		County	//Parish:		USGS Wate	erbody Name:				
Company:		Crew N	Member Initials:		Latitude:			Longitude:		
Survey Type: (check one)	☐ Center	line	☐ Re-Route		Access Road	□Facility	□Other			
Waterbody Type:	☐ River		☐ Stream		Ditch	☐ Swale	☐ Canal	I (Other	
Water Appearance: (check one)	□ No Wa	ater	☐ Clear		Turbid	☐Sheen on Surface	□Surfac	e Scum 🗆 A	Igal Mats	□Other
Feature Quality ^a :	□ High		☐ Moderate		Low	J unius				
Feature Description: (check one)	☐ Natura	ıl	☐ Artificial, mar	n-made 🗆	Manipulated					
Flow Regime:	☐ Ephen	neral	□ Intermittent		Perennial	☐ Connect Swale	ing 🗆 Artif	icial		
Sinuosity within Survey Corridor: (check one)	☐ Straig	ht	☐ Meandering			Owale				
Description Notes:										
Measurements				Water Educ		J.,	NI/A 🗆	OLDA/BA VA/: -I41		
Depth of Water:	ft.	N/A□	Unknown□	water Euge	e to Water Ed	dge: ft.	N/A□	OHWM Width	ı:ı	t.
OHWM Indicator: (check all that apply)	□ C	lear line	on bank \square Sh	nelving	□Wrested	vegetation	□Scouring		□Water	staining
		ent, mat sing veg		rack line	□Litter and		☐ Abrupt plan change	t community	□Soil change	aracteristic
		ther - P	lease explain in co	omments						
Dominant Substrate: (check all that apply)	□В	edrock	☐ Boulder	☐ Cobb	ole 🗆	Gravel	☐ Sand	☐ Silt/ clay		Organic
Observations										
Riparian Zone Preser (check one)	nt: 🗆 Y	es	□ No							
Vegetation Layers: (check all that apply)	□Т	rees	☐ Sapling	gs/Shrubs	☐ Herbs	6				
Dominant Bank Vege	etation (lis	t):								
Aquatic Habitats (ex:	submerged o	r emerged	aquatic vegetation, over	rhanging banks/r	oots, leaf packs,	large submerged w	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms (Observed	(list):								
		, ,								
Disturbances (ex: live	stock acces	ss, manur	e in waterbody, was	te discharge p	ipes):					
Observation Notes:										



srig001e Upstream Facing North



srig001e Downstream Facing South



srig001e Across Facing West

Waterbody Data Sheet

Description										
Project Name:					Date:			Waterbody S	urvey ID:	
State:		County	//Parish:		USGS Wate	erbody Name:				
Company:		Crew N	Member Initials:		Latitude:			Longitude:		
Survey Type: (check one)	☐ Center	line	☐ Re-Route		Access Road	□Facility	□Other			
Waterbody Type:	☐ River		☐ Stream		Ditch	☐ Swale	☐ Canal	I (Other	
Water Appearance: (check one)	□ No Wa	ater	☐ Clear		Turbid	☐Sheen on Surface	□Surfac	e Scum 🗆 A	Igal Mats	□Other
Feature Quality ^a :	□ High		☐ Moderate		Low	J unius				
Feature Description: (check one)	☐ Natura	ıl	☐ Artificial, mar	n-made 🗆	Manipulated					
Flow Regime:	☐ Ephen	neral	□ Intermittent		Perennial	☐ Connect Swale	ing 🗆 Artif	icial		
Sinuosity within Survey Corridor: (check one)	☐ Straig	ht	☐ Meandering			Owale				
Description Notes:										
Measurements				Water Educ		J.,	NI/A 🗆	OLDA/BA VA/: -I41		
Depth of Water:	ft.	N/A□	Unknown□	water Euge	e to Water Ed	dge: ft.	N/A□	OHWM Width	ı:ı	t.
OHWM Indicator: (check all that apply)	□ C	lear line	on bank \square Sh	nelving	□Wrested	vegetation	□Scouring		□Water	staining
		ent, mat sing veg		rack line	□Litter and		☐ Abrupt plan change	t community	□Soil change	aracteristic
		ther - P	lease explain in co	omments						
Dominant Substrate: (check all that apply)	□В	edrock	☐ Boulder	☐ Cobb	ole 🗆	Gravel	☐ Sand	☐ Silt/ clay		Organic
Observations										
Riparian Zone Preser (check one)	nt: 🗆 Y	es	□ No							
Vegetation Layers: (check all that apply)	□Т	rees	☐ Sapling	gs/Shrubs	☐ Herbs	6				
Dominant Bank Vege	etation (lis	t):								
Aquatic Habitats (ex:	submerged o	r emerged	aquatic vegetation, over	rhanging banks/r	oots, leaf packs,	large submerged w	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms (Observed	(list):								
		, ,								
Disturbances (ex: live	stock acces	ss, manur	e in waterbody, was	te discharge p	ipes):					
Observation Notes:										



srig002e Upstream Facing West



srig002e Downstream Facing East

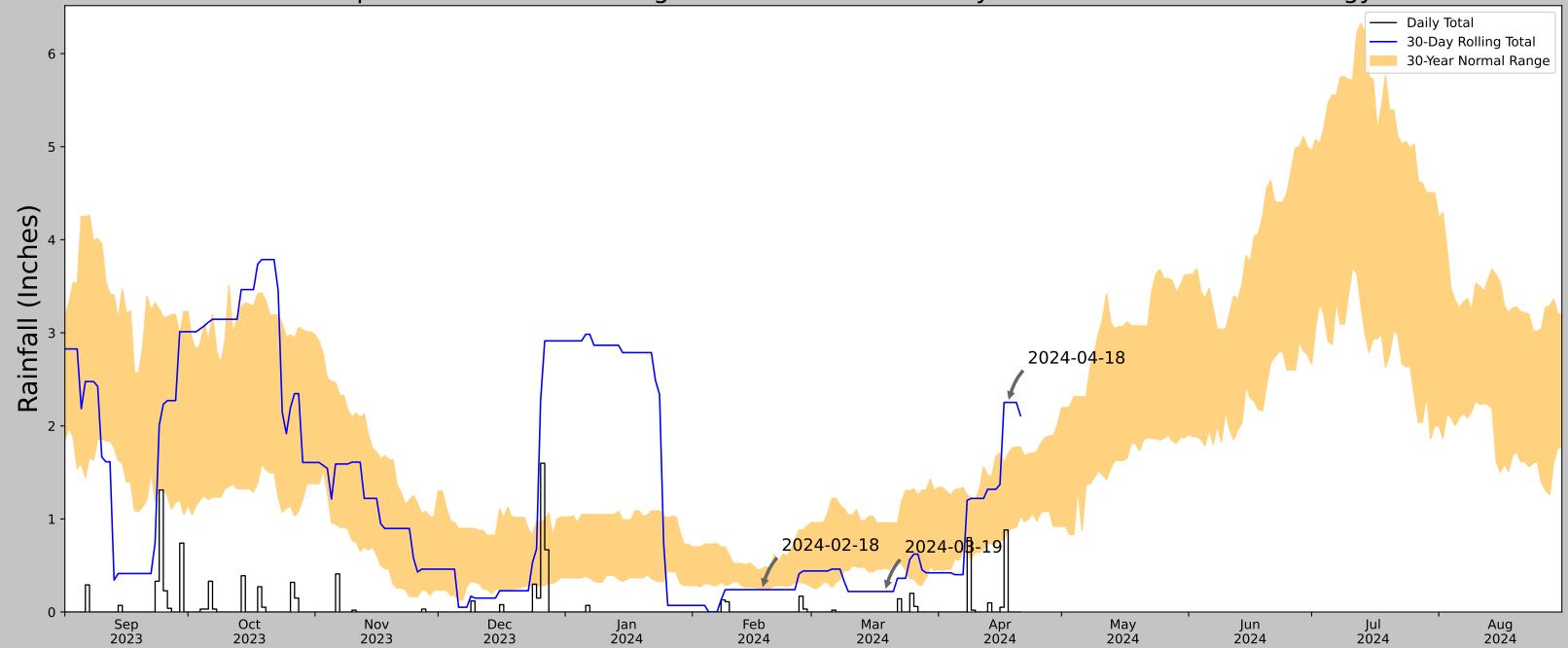


srig002e Across Facing South



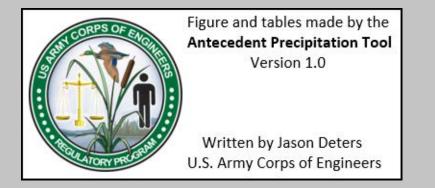
APPENDIX D ANTECEDENT PRECIPITATION TOOL

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	46.569006, -96.911320
Observation Date	2024-04-18
Elevation (ft)	936.339
Drought Index (PDSI)	Moderate wetness (2024-03)
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-04-18	0.877559	1.704331	2.251969	Wet	3	3	9
2024-03-19	0.471654	0.958661	0.220472	Dry	1	2	2
2024-02-18	0.249606	0.464173	0.240157	Dry	1	1	1
Result							Normal Conditions - 12



Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
MC LEOD 3 E	46.3911, -97.2392	1075.131	19.861	138.792	11.694	11034	88
WAHPETON 12.1 WNW	46.3313, -96.841	977.034	19.431	98.097	10.65	16	0
KINDRED 1.7 SSE	46.63, -97.001	948.163	20.019	126.968	11.55	1	0
KINDRED 0.1 SE	46.65, -97.0193	943.898	20.719	131.233	12.043	59	0
LEONARD 4.7 NNE	46.7173, -97.2216	942.913	22.554	132.218	13.131	6	0
WAHPETON 15.8 NNW	46.4729, -96.7671	937.008	23.181	138.123	13.633	0 !	1
ABERCROMBIE	46.45, -96.7333	935.039	24.437	140.092	14.42	1 /	0
ABERCROMBIE 0.2 NW	46.449, -96.728	937.008	24.675	138.123	14.512	14	1
KENT 0.2 SW	46.4366, -96.6847	940.945	26.601	134.186	15.54	44	0
CHAFFEE 5 NE	46.7958, -97.2686	953.084	27.997	122.047	16.016	149	0
BRECKENRIDGE MN	46.2681, -96.5914	959.974	32.053	115.157	18.115	28	0