

December 21, 2020

Ms. Laura Morland, PE Environmental Practice Leader Mead & Hunt 2440 Demming Way Middleton, WI 53562-1562

Dear Ms. Morland,

Carlson McCain, Inc. is pleased to submit the Aquatic Resources Delineation Report of the Stanley Municipal Airport located near Stanley, North Dakota for your review.

Please call me at 701-595-7004 if you have any questions or need additional information

Sincerely,

gy W. Meyer

Greg Meyer M.S. Ecologist

AQUATIC RESOURCES DELINEATION REPORT

Stanley Municipal Airport Stanley, North Dakota Carlson McCain Project No.: 9065

Prepared for: Ms. Laura Morland Environmental Practice Leader Mead & Hunt 2440 Deming Way Middleton, WI 53562-1562

December 21, 2020

Prepared by:



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ENGINEERING \ LAND SURVEYING \ ENVIRONMENTAL

EXCUTIVE SUMMARY

The Aquatic Resource Delineation was conducted in accordance with the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0) (Wetland Manual). Wetlands are defined by Clean Water Act Section 404; 33 CFR Part 328.3 – Definition of the Waters of the U.S. as, "The term wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

The Aquatic Resource Delineation was conducted in accordance with the 2008 "A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States" and the 2014 "Occurrence and Distribution of Ordinary High Water Mark (OHWM) Indicators in Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States. USACE OHWM Delineation Cover and Sheets were completed for each delineated Water of the US. A detailed description of Waters of the US can be found Under Title 33, Chapter II, Code of Federal Regulations (CFR), Part 328 "Definition of Waters of the United States".

The Stanley Municipal Airport is planning future improvements. Numerous aquatic resources were delineated within the airport. Seven wetlands and three ephemeral drains were delineated. Wetlands comprised approximately 0.88 acres and the constructed ephemeral drains comprised approximately 0.38 acres and 1,712 linear feet. The Project Area comprises 114 acres near Stanley, North Dakota.

TABLE OF CONTENTS

	1
II. LOCATION	1
III. METHODS	1
IV. EXISTING CONDITIONS	2
4.1 Landscape Setting	2
4.1.2 Overview	2
4.1.3 Aquatic Resource Systems	4
4.2 Soil Descriptions	4
4.3 Climatic Conditions	4
V. REFERENCES	5

TABLES

Table 1 Summary of aquatic resources identified within the Stanley Municipal Airport Project Area. 3

EXHIBITS

- Exhibit 1 Project Location Map
- Exhibit 2 Project Access Map and Google Map Directions
- Exhibit 3 Aquatic Resources Map
- Exhibit 4 USGS Topo Map
- Exhibit 5 Historical Aerial Map
- Exhibit 6 Soil Map Units

APPENDICES

- Appendix A Project Photographs
- Appendix B Plant List
- Appendix C USACE Wetland Determination Data Sheets
- Appendix D Project Area Permission Sheet
- Appendix E Aquatic Resources Excel Table

ACRONYMS AND ABREVIATIONS

Airport Stanley Municipal Airport **BMP** best management practice Carlson McCain Carlson McCain, Inc. cfs cubic feet per second **CR** County Route **Mountrail** Mountrail County **FAC** facultative FACU facultative upland FACW facultative wetland **HUC** Hydrologic Unit Code LIDAR Light Detection and Ranging **LWD** large woody debris **MP** Mile Post **NAIP** National Agriculture Imagery Program **NDAWN** North Dakota Agricultural Weather Network **NHD** National Hydrography Dataset **NI** No Information NRCS Natural Resources Conservation Service **NWI** National Wetland Inventory **NWPL** National Wetland Plant List **OBL** Obligate **OHWM** ordinary high water mark **PAB** palustrine aquatic bed **PEM** palustrine emergent **PFO** palustrine forested **PLSS** Public Land Survey System **PSS** palustrine scrub-shrub **ROW** right-of-way **SR** State Route **USACE** U.S. Army Corps of Engineers **USDA** U.S. Department of Agriculture **USFWS** U.S. Fish and Wildlife Service **USGS** United States Geological Survey **UTM** Universal Transverse Mercator coordinate system WRIA Water Resource Inventory Area

I. INTRODUCTION

Stanley Municipal Airport (Airport) is planning future improvements within its boundaries located in Section 29, Township (T) 156 North (N), Range (R) 91 West (W). **Please refer to Exhibit 1, Project Location Map**.

Contact Information:

Project Manager – Laura Morland, PE Mead & Hunt 608-443-0608 laura.morland@meadhunt.com

The purpose of this report is to identify and describe aquatic resources and facilitates efforts to:

- 1. Avoid and minimize impacts to aquatic resources during the design process
- 2. Document aquatic resource boundaries for review by regulatory authorities.

II. LOCATION

The Airport is located approximately one-half mile southwest of Stanley, North Dakota. It can be accessed by traveling west on US Highway 2 to its intersection with 82nd Ave. Turn south onto 82nd Ave. and proceed for approximately 0.75 miles to the entrance of the Airport. The Project Area is located at (lat: 48.300808; long: -102.401787). Additional directions are contained in the Google Map Directions. **Please refer to Exhibit 2, Project Access Map and Google Map Directions**.

III. METHODS

The aquatic resource delineation was conducted in accordance with the USACE 1987 Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0) (Wetland Manual). Wetlands are defined by Clean Water Act Section 404; 33 CFR Part 328.3 – Definition of the Waters of the U.S. as, "The term wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

In addition, the field delineation was conducted in accordance with the North Dakota Century Code 43-46, Professional Soil Classifiers.

Prior to field work existing resource information was used to aid in identifying and delineating aquatic resources located within the Project Area. These resources included: Mountrail County NAIP 2020, 2019, 2018, 2017, 2016, 2015, 2014, 2012, 2010, and 2009 aerial photographs; USFWS NWI (USFWS, 2020); digital web soil survey of Mountrail County (USDA-NRCS, 2020); and the USGS National Hydrography Dataset (USGS, 2020).

All wetland areas were documented with paired upland and wetland observation points. A description of the wetland type and documentation of the vegetation, hydrology, and soils were recorded on the associated USACE Wetland Determination Data Forms of the Great Plains Manual (**Appendix C**) and are identified by an observation point number (i.e., 1, 2).

Existing vegetation was classified using hydrophytic vegetation criteria outlined in the Wetland Manual and the *National Wetland Plant List* (Lichvar, 2016). Hydric soil indicators were determined using the *Field Indicators of Hydric Soils in the United States; Guide for Identifying and Delineating Hydric Soils, Version 7.0* (USDA-NRCS, 2010). Hydrology was determined on-site by observation of hydrologic indicators as defined by the Wetland Manual.

Soils, vegetation, hydrology, and landscape indicators were evaluated along the wetland edge to accurately delineate the wetland boundaries. Aquatic resources were recorded with a Samsung Galaxy tablet with the assistance of an EOS Positioning Systems Arrow Lite GPS receiver for sub-meter accuracy.

The Project was also evaluated for Waters of the US besides wetlands during the aquatic resource delineation. The Project was evaluated in accordance with the guidelines set forth by the 2008 "A Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States" and the 2014 "Occurrence and Distribution of Ordinary High Water Mark (OHWM) Indicators in Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States. A detailed description of Waters of the US can be found Under Title 33, Chapter II, Code of Federal Regulations (CFR), Part 328 "Definition of Waters of the United States". These aquatic resources may include traditional navigable waters (rivers, streams, and lakes), lakes, ponds, and impoundments of and adjacent wetlands to jurisdictional waters, tributaries; and waters upon which Interstate or Foreign commerce has occurred.

IV. EXISTING CONDITIONS

4.1 Landscape Setting

The Project is located on the Missouri Coteau Slope, which is part of the Northwestern Great Plains Ecoregion. The Missouri Coteau Slope has rolling topography with a simple drainage pattern and fewer wetlands than more recently glaciated areas located to the north and east. Dryland agriculture, livestock production, and oil and gas extraction activities are common in the area (Bryce et al. 1998). Common agriculture crops grown in the area are small grains, alfalfa, soybeans, and sunflowers. Livestock graze pastures located on steep slopes along drainages such as the Little Knife River. Please refer to Exhibit 3 Aquatic Resources Map, Exhibit 4 USGS Topo Map, and Appendices A and B for Project Photographs and Plant List.

The Airport was not constructed in 1958. Please refer to Exhibit 5 Historical Aerial Map.

The entire Project Area was evaluated during the field delineation by Greg Meyer, Ecologist of Carlson McCain and Darrell VanderBusch, Registered Professional Soil Classifier. The field delineation was conducted on September 24, 2020, during pleasant conditions (65 degrees Fahrenheit temperature and southwest winds at 10-15 miles per hour). The Project Area covers approximately 114 acres.

The Project Area is located within the Lake Sakakawea (10110101) HUC Watershed that comprises approximately 6,813 square miles. The Little Knife River, located approximately 0.25 miles south of the Project Area, is a direct tributary of Lake Sakakawea. From near the Project Area, The Little Knife River flows approximately 30 miles to Lake Sakakawea.

4.1.1 Aquatic Resources

4.1.2 Overview

Seven wetlands and three ephemeral drains were delineated. Wetlands comprised approximately 0.88 acres and the constructed ephemeral drains comprised approximately 0.38 acres and 1,712 linear feet. Four wetlands (1c, 2a, 2b, and 5b) are part of the Airport's storm water removal system. Wetlands 1a,

3b, and 4 are naturally-occurring pothole wetlands. Wetland 3b is partially drained by the Airport's storm water removal system. Constructed drains 1b, 3a, and 5a, convey water away from the Airport and only flow in an ephemeral fashion following snow-melt or significant precipitation events. **Please refer to Exhibits 3 Aquatic Resource Map, Appendix A Project Photographs, Appendix B Plant List, Appendix C USACE Wetland Determination Data Sheet**.

No aquatic resources were depicted on the topographic quadrangle within the Project Area. **Please refer to Exhibit 4 USGS Topo Map.** Table 1 summarizes the delineated aquatic resource located within the Project Area.

Table 1	Summary	of aquatic	resources	identified	within	the	Stanley	Municipal	Airport	Project
Area.										

Aquatic Resource	Test Hole (in	Aquatic Resources Classification		LONG West (Dec. Deg.)	LAT North (Dec.	Aquatic Resource Size	Aquatic Resource Length	Aquatic Resource
	wetland)	Cowardin*	Cowardin* Location		Deg.)	(acres)	(linear feet)	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
# 1a	1	PEMA	Section 29, T156N- R91W	-102.398409	48.299551	0.28	NA	Wetland
# 1b	NA	NA	Section 29, T156N- R91W	-102.399052	48.300018	0.01	104	Drain (constructed)
# 1c	3	PEMAx	Section 29, T156N- R91W	-102.399052	48.300018	0.01	NA	Wetland (ditch)
# 2a	9	PEMAx	Section 29, T156N- R91W	-102.401181	48.300036	0.05	NA	Wetland (ditch)
# 2b	7	PEMAx	Section 29, T156N- R91W	-102.401974	48.30012	0.04	NA	Wetland (ditch)
# 3a	30	NA	Section 29, T156N- R91W	-102.403363	48.301539	0.27	819	Drain (constructed)
# 3b	5	PEMAd	Section 29, T156N- R91W	-102.404435	48.300672	0.26	NA	Wetland
# 4	11	PEMA	Section 29, T156N- R91W	-102.411615	48.302414	0.22	NA	Wetland
# 5a	34	NA	Section 29, T156N- R91W	-102.407597	48.300629	0.1	788	Drain (constructed)
# 5b	13	PEMAx	Section 29, T156N- R91W	-102.407618	48.298473	0.02	NA	Wetland (ditch)

*Cowardin Classification from NWI layer <<u>http://wetlandsfws.er.usgs.gov/NWI/</u>and from Classification of wetlands and deepwater habitats of the United States, (Cowardin 1979). Wetlands without designated classifications were assigned classifications during the aquatic resources delineation.

4.1.3 Aquatic Resource Systems

Wetlands 1a, 3b, and 4 are natural pothole wetlands located within the Airport. Prevalent hydrophytic vegetation within these wetlands include: prairie cordgrass (*Spartina pectinata* - FACW), reed canary grass (*Phalaris arundinacea* - FACW), foxtail barley (*Hordeum jubatum* - FACW), and curly dock (*Rumex crispus* - FAC). Depleted Below Dark Surface (A11) and Depleted Matrix (F3) were the prevalent hydric soil indicators in the wetlands. Sediment Deposits (B2), Geomorphic Position (D2), and FAC-Neutral Test (D5) were all noted as indicators of hydrology within the wetland areas. Portions of the Airport's storm water removal system flows into Wetland 1a. Wetland 3b is partially drained by the Airport's storm water removal system but pockets of hydrophytic vegetation still exist in the wetland area. Wetland 4 is an isolated pothole wetland as no surface connection to other aquatic resources or ephemeral ditches were noted. The wetlands were all considered to be palustrine, emergent, temporary flooded hydrologic regime (PEMA).

Wetlands 1c, 2a, 2b, and 5b consist of shallow wetlands located in the Airport's storm water removal system. These wetlands are shallow scrapes that retain some of the water that is being conveyed within the storm water system. These wetlands contained cattails (*Typha angustifolia* - OBL), reed canary grass, foxtail barley, common spike rush (*Eleocharis palustris* - OBL), and clustered field sedge (*Carex praegracilis* - FACW). Depleted Matrix (F3) was the prevalent hydric soil indicator in the wetlands. Sediment Deposits (B2), Geomorphic Position (D2), and FAC-Neutral Test (D5) were all noted as indicators of hydrology within the wetland areas. The wetlands were all considered to be palustrine, emergent, temporary flooded hydrologic regime, excavated (PEMAx).

Ephemeral Drains 1b, 3a, and 5a were all constructed to convey hydrology away from the Airport. Ephemeral Drain 1b conveys hydrology from Wetland 1c into Wetland 1a and away from the eastern portion of the Airport. The constructed drain is approximately 12-inches wide and 8-inches in depth. Upland vegetation grows throughout the drain. Ephemeral Drain 3a was constructed to convey hydrology away from the western portion of the Airport facilities. The constructed drain is approximately 10-feet wide and 15-inches in depth. Slender wheatgrass (*Elymus trachycaulus* - FACU) is prevalent throughout the constructed drain. Ephemeral Drain 5a is a large constructed drain that flows water south away from the Airport. Hydrology from the western portion of the Airport is conveyed to an inlet culvert on the north side of the runway. The culvert conveys water to the south under the runway and flows into Ephemeral Drain 5a. Upland vegetation is prevalent in the drain except for the southern end where it enters Wetland 5b. Kentucky bluegrass (*Poa pratensis* - FACU) and Canada thistle (*Cirsium arvense* - FACU) are prevalent in the northern portion near the culvert while smooth brome (*Bromus inermis* - UPL) is prevalent throughout the rest of the drain.

4.2 Soil Descriptions

Mountrail County Soil Survey: The USDA Web Soil Survey indicates that the Airport is located on somewhat hydric soils (1-32% rating). Prevalent soils include C154C – Zahl-Williams-Bowbells loams, 3-9% slopes, C132B – Williams-Zahl loams, 3-6% slopes, C360B – Livona fine sandy loam 0-6% slopes, and C800B – Appam sandy loam 2-6% slopes . **Please refer to Exhibit 6, Soil Survey Map.**

4.3 Climatic Conditions

Precipitation data from the NDAWN Ross 4E weather station was analyzed as this was the closest weather station with a complete dataset. Rainfall / precipitation within 2020 should be considered "dry" (7.36 inches) as precipitation amounts were approximately 53% of normal amounts (13.86 inches) (NDAWN, 2020).

No interstate or foreign commerce was observed during the field delineation. It is unknown but possible that interstate or foreign commerce has occurred within the delineated aquatic resources.

V. REFERENCES

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- A University Dr, Bismarck, ND 58504
- **B** 6135 82nd Ave NW, Stanley, ND 58784

Type your route notes here

A University Dr, Bismarck, ND 58504

1	1.	Head north on ND-1804 / University Dr toward 26th St SE	1.3 mi
Þ	2.	Turn right onto Airport Rd	0.9 mi
₽	3.	Turn right onto ND-810 / E Bismarck Expy <i>Minor Congestion</i>	2.1 mi
93	4.	Keep straight onto I-94 E Bus Loop / ND-810 / N Bismarck Expy Moderate Congestion	1.7 mi
8	5.	Take ramp left for I-94 W / US-83 N	1.8 mi
r	6.	At exit 159, take ramp right for US-83 North toward Minot / Wilton	0.2 mi
₽	7.	Turn right onto US-83 N / ND-1804 / State St toward Minot / Wilton Moderate Congestion	106.1 mi, 1 hr 39 min
(2)	8.	Take ramp right for US-83 Byp W / US-2 West / US-52 West toward Williston Pass Subway in 3.1 mi	13.1 mi, 14 min
5	9.	Bear left onto US-2 W / Highway 2 W Pass Hot Stuff Pizza on the left in 9.9 mi ▲ <i>Minor Congestion</i>	41.5 mi, 31 min
←	10.	Turn left onto 82nd Ave NW	0.5 mi
Þ	11.	Turn right	0.1 mi

Arrive at your destination on the left

- 12. The last intersection is 82nd Ave NW
- B 6135 82nd Ave NW, Stanley, ND 58784





These directions are subject to the Microsoft® Service Agreement and are for informational purposes only. No guarantee is made regarding their completeness or accuracy. Construction projects, traffic, or other events may cause actual conditions to differ from these results. Map and traffic data © 2020 TomTom.







December 2020 E:\P



USDA Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey



Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
СЗА	Parnell silty clay loam, 0 to 1 percent slopes	100	3.4	0.8%
C132B	Williams-Zahl loams, 3 to 6 percent slopes	2	131.4	32.4%
C153E	Zahl-Max loams, 15 to 25 percent slopes	8	2.6	0.7%
C154C	Zahl-Williams-Bowbells loams, 3 to 9 percent slopes	2	31.2	7.7%
C210A	Williams-Bowbells loams, 0 to 3 percent slopes	3	13.2	3.2%
C272A	Hamerly-Tonka complex, 0 to 3 percent slopes	41	13.9	3.4%
C360B	Livona fine sandy loam, 0 to 6 percent slopes	3	29.2	7.2%
C370B	Krem-Lihen loamy fine sands, 0 to 6 percent slopes	2	7.6	1.9%
C415A	Tansem loam, 0 to 2 percent slopes	1	6.7	1.7%
C424A	Minot silty clay, 0 to 2 percent slopes	2	9.3	2.3%
C800B	Appam sandy loam, 2 to 6 percent slopes	1	87.8	21.6%
C816B	Lehr loam, 2 to 6 percent slopes	0	0.2	0.0%
C825A	Divide loam, 0 to 2 percent slopes	10	12.8	3.2%
C870E	Wabek-Lehr-Appam complex, 9 to 25 percent slopes	2	41.1	10.1%
C874C	Wabek-Appam complex, 6 to 9 percent slopes	1	15.3	3.8%
C990F	Pits, gravel and sand, 0 to 60 percent slopes	0	0.0	0.0%
Totals for Area of Inter	rest		405.7	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

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Rating Options

Aggregation Method: Percent Present Component Percent Cutoff: None Specified Tie-break Rule: Lower



Appendix A

Project Photographs



Photograph 1. View of Wetland 1a taken facing southeast from Ephemeral Drain 1b. Hydrophytic vegetation is prevalent in the naturally occurring wetland.



Photograph 2. View of Ephemeral Drain 1b taken facing northwest. The constructed drain conveys water away from the airport into Wetland 1a.



Photograph 3. View of Wetland 1c taken facing west. Wetland 1c is part of the storm water removal system and is a slightly deeper area at the lip of the culvert. The culvert connects to Ephemeral Drain 1b and flows water away from the Airport.



Photograph 4. View of Wetland 2b taken facing west. Wetlands 2a and 2b are slightly deeper areas of the Airport's storm water removal system. Storm water is conveyed to the west into a large culvert under the runway and then it flows south.



Photograph 5. View of Ephemeral Drain 3a taken facing west. The constructed drain conveys water from the Airport Facilities to the west and away from the hangers. The constructed drain is well vegetated with slender wheatgrass. Observation Point 30 was evaluated within the drain near the vehicles in the background off the photograph.



Photograph 6. View of the edge of Wetland 3b. Wetland 3b appears to be a naturallyoccurring wetland that has been partially drained by the Airport's storm water system. Water flows west from the wetland area to a large culvert and then south under the runway and away from the Airport.



Photograph 7. View of culvert that flows storm water south under the runway and into Ephemeral Drain 5a. Photograph taken facing south. Ephemeral Drain 5a conveys water south and under 61st Street. Observation Point 32 was evaluated near the culvert location.



Photograph 8. View of Ephemeral Drain 5a taken facing south. The Airport's storm water removal system conveys water into this constructed drain. Upland vegetation was prevalent throughout the drain.



Photograph 9. View of Wetland 5b and Ephemeral Drain 5a (background). Photograph taken facing north. Wetland 5b is located at the southern end of Ephemeral Drain 5a and 61st Street. Reed canary grass is prevalent in the wetland.



Photograph 10. View of Wetland 4, taken facing west. Wetland 4 is a naturally-occurring pothole wetland located to the north of the western end of the runway. It appears isolated as no surface connection to any other aquatic resource was noted. Reed canary grass and curly dock was prevalent in the wetland area.



Photograph 11. View of an Ephemeral Swale located across 61st Street in Section 33. The swale conveys water to the south and east and flows into a deeper cut and ultimately into the Stanley Reservoir (impoundment of Little Knife River). Only upland vegetation was noted within the swale in the Airport. It appears that hydrophytic vegetation may be present in the swale as it deepens outside of the Airport boundary. Observation Point 36 was evaluated in the area of the photograph.

Appendix B

Plant List

Genus	Species	Common Name	Wetland Indicator
Bromus	inermis	Smooth brome	UPL
Cirsium	arvense	Canada thistle	FACU
Eleocharis	palustris	Common spikerush	OBL
Elymus	repens	Quackgrass	FACU
Elymus	trachycaulus	Slender wheatgrass	FACU
Hordeum	jubatum	Foxtail barley	FACW
Medicago	sativa	Alfalfa	UPL
Persicaria	amphibia	Water smartweed	OBL
Phalaris	arundinacea	Reed canarygrass	FACW
Poa	pratensis	Kentucky bluegrass	FACU
Rumex	crispus	Curly dock	FAC
Spartina	pectinata	Prairie cordgrass	FACW
Thalspi	arvense	Pennycress	FACU
Typha	angustifolia	Narrowleaf cattail	OBL

Plant species list within Stanley Municipal Airport Project Area

OBL = occurs in aquatic resources > 99% of time

FACW = occurs in aquatic resources 67-99% of time

FAC = occurs in aquatic resources 34-66% of time

FACU = occurs in aquatic resources 1-33% of time

UPL = occurs in uplands 99% of time

NI = indicator status not known in this region

Appendix C

USACE Wetland Determination Data Sheets

WETLAND DET	ERMINATIO	N DATA FOR	M – Great Plains Region	
Project Site: <u>Stanley Municipal Airport</u>		City/C	County: <u>Stanley /</u> Mountrail Sampling Date: <u>9/24/2020</u>	
Applicant/Owner: <u>Mead & Hunt</u>			State: <u>ND</u> Sampling Point: <u>1</u>	
Investigator(s): <u>GWM & DEV</u>		Sectio	on, Township, Range: <u>29-156-91</u>	
Landform (hillslope, terrace, etc.): depression		Local relief (con	ncave, convex, none): <u>Concave</u> Slope (%): <u>1</u>	
Subregion (LRR): <u>F</u> Lat: <u>48.299</u>	<u>551</u>	Long:	<u>-102.398409</u> Datum: <u>NAD 83</u>	
Soil Map Unit Name: <u>C800A Appam sandy loam, 2-6</u>	% slopes		NWI classification: <u>na</u>	
Are climatic / hydrologic conditions on the site typical for	this time of year?	Yes 🗌 No	⊠ (If no, explain in Remarks.)	
Are Vegetation D, Soil D, or Hydrology	□, significantly	disturbed? Are	e "Normal Circumstances" present? Yes 🛛 No 🗌	
Are Vegetation \Box , Soil \Box , or Hydrology	□, naturally pro	oblematic? (If r	needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map sh	nowing samplin	ng point location	s, transects, important features, etc.	
Hydrophytic Vegetation Present?	Yes 🖾 N	•		
Hydric Soil Present?	Yes 🖾 N	•		
Wetland Hydrology Present?	Yes 🖾 N	○ □ Is the San	npling Area within a Wetland? Yes 🛛 No 🗌	
Remarks:				
Natural depression wetland. Dry conditions at time of	of the delineation).		
VEGETATION – Use scientific names of plants	6			
Tree Stratum (Plot Size:)	Absolute Dor % Cover Spe	ninant Indicator cies? Status	Dominance Test Worksheet:	
1			Number of Dominant Species	
2			That Are OBL, FACW, or FAC: $\frac{1}{2}$ (A)	
3			Total Number of Dominant	
4			Species Across All Strata: (B)	
	= Te	otal Cover	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot Size:)			That Are OBL, FACW, or FAC: 100 (A/B)	
1			Prevalence Index worksheet:	
2			Total % Cover of: Multiply by:	
3			OBL species x1 =	
4.			FACW species x2 =	
5	<u> </u>		FAC species x3 =	
	= Te	otal Cover	FACU species x4 =	
Herb Stratum (Plot Size: 5')			UPL species x5 =	
1 Spartina pectinata	100 ves	FACW	Column Totalor (A) (B)	
2	<u>100</u> <u>700</u>	171011	Column rotals. (3)	
3			Hydronhytic Vegetation Indicators:	
4			1 – Rapid Test for Hydrophytic Vegetation	
5.			x 2 - Dominance Test is >50%	
6.				
7.			3 – Prevalence Index is ≤3.01	
8			4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	n
9.			Problematic Hydronbytic V/ggtation ¹ (Explain)	
10			Indicators of hydric soil and watland hydrology must be present	
	100 = T	otal Cover	unless disturbed or problematic.	
Woody Vine Stratum (Plot Size:	100			
1				
·· 2				
£		otal Cover		
% Baro Cround in Harb Stratum 0				1
Remarks:				

SOIL	-										Sampling Po	oint: 1				
Profil	le Descri	ption: (Describe to	o the depth need	led to doc	ument t	he indicator	or confirm the	absence of inc	dicators	s.)						
Depth Matrix						Redox F	eatures		_							
(inch	es)	Color (moist)	%	Color (Mo	ist)	%	Type ¹	Loc ²	Τe	exture		Rem	arks			
<u>c</u>)-7	<u>10YR 2/1</u>	<u>100</u>							<u>l</u>						
<u>7</u>	<u>-16</u>	<u>2.5Y 4/2</u>	<u>94</u>	7.5YR 5/	4	<u>6</u>	<u>c</u>	<u>m</u>		<u>sil</u>						
											·					
											·					
_											·					
¹ Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix																
Hydri	ic Soil In	dicators: (Applica	ble to all LRRs, i	unless oth	erwise	noted.)				Indicators for Problematic Hydric Soils ³ :						
	Histosol	(A1)		Sandy Gleyed Matrix (S4)						□ 1 cm Muck (A9) (LRR I, J)						
	Histic Ep	oipedon (A2)		Sandy Redox (S5)						Coast Prairie Redox (A16) (LRR F, G, H)						
	Black Hi	stic (A3)		Stripped Matrix (S6)						Dark Surface (S7) (LRR G)						
	Hydroge	n Sulfide (A4)		Loamy Mucky Mineral (F1)						High Plains Depressions (F16)						
	Stratified	Layers (A5) (LRR	R F)	Loamy Gleyed Matrix (F2)						(LRR H outside of MLRA 72 & 73)						
	1 cm Mu	ick (A9) (LRR F, G	i, H)	Depleted Matrix (F3)						Reduced Vertic (F18)						
	Depleted	d Below Dark Surfa	ace (A11)	Redox Dark Surface (F6)						Red Parent Material (TF2)						
	Thick Da	ark Surface (A12)		Depleted Dark Surface (F7)							Very Shallow Dark	Surface	e (TF 12	2)		
	Sandy M	lucky Mineral (S1)		Redox Depressions (F8)							Other (Explain in F	Remarks)			
	2.5 CM I	Mucky Peat or Pea	at (S2)(LRR G, H	H) High Plains Depressions (F16)						°Indic hvdro	ators of hydrophytic logy must be presen	vegetat	ion and s distur	wetlan	d	
	5 cm Mu	icky Peat or Peat (S3) (LRR F)		(MLI	RA 72 & 73	of LRR H)			proble	ematic.	i, amoo	o ulotali			
Restr	ictive La	yer (if present):														
Type:																
Depth	n (Inches)):								Hydri	ic Soils Present?	Yes	\boxtimes	No		
Rema	arks <i>:</i>															

HYDROLOGY

Wetl	and Hydrology Indicat	ors:												
Primary Indicators (minimum of one required; check all that apply)								Secondary Indicators (2 or more required)						
	Surface Water (A1)					Salt Crust (B11)		Surface Soil Cracks (B6)						
	High Water Table (A2))				Aquatic Invertebrates (B13)		Sparsely Vegetated Concave Surface (B8)						
	Saturation (A3)					Hydrogen Sulfide Odor (C1)		Drainage Patterns	(B10)					
	Water Marks (B1)					Dry Season Water Table (C2)		Oxidized Rhizosph	neres alo	ng Living	Roots (C3)		
	Sediment Deposits (B	2)				Oxidized Rhizospheres along Living Roo	ots (C3)	(where tilled)						
	Drift Deposits (B3)					(where not tilled)		Crayfish Burrows (C8)					
	Algal Mat or Crust (B4)					Presence of Reduced Iron (C4)		Saturation Visible	on Aerial	Imagery	/ (C9)			
	Iron Deposits (B5)					Thin Muck Surface (C7)	Geomorphic Position (D2)							
	Inundation Visible on Aerial Imagery (B7)					Other (Explain in Remarks)			st (D5)					
	Water-Stained Leav	ves (B9))					Frost-Heave Humr	nocks (C	97) (LRR	F)			
Field	Observations:													
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):								
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):								
Satuı (inclu	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetland Hy	Yes	\boxtimes	No				
Desc	ribe Recorded Data (st	ream gau	uge, mc	nitoring	g well, a	aerial photos, previous inspections), if avai	ilable:							
Rem	arks:													
WETLAND DET	ERMINATIO		A FORM – Grea	at Plains Regior	n									
--	---------------------------	------------------------	----------------------------	-------------------------------	---									
Project Site: <u>Stanley Municipal Airport</u>			City/County:	<u>Stanley /</u> Mountrail	Sampling Date: <u>9/24/2020</u>									
Applicant/Owner: Mead & Hunt				State: <u>ND</u>	Sampling Point: <u>2</u>									
Investigator(s): <u>GWM & DEV</u>			Section, Township	, Range: <u>29-156-91</u>										
Landform (hillslope, terrace, etc.): <u>slope</u>		Local r	relief (concave, conve	x, none): <u>convex</u>	Slope (%): <u>2</u>									
Subregion (LRR): F Lat: 48.2990	<u>655</u>		Long: <u>-102.398381</u>	<u> </u>	Datum: <u>NAD 83</u>									
Soil Map Unit Name: C800A Appam sandy loam, 2-6	% slopes			NWI classi	ification: <u>na</u>									
Are climatic / hydrologic conditions on the site typical for	this time of year	r?Yes	🗌 No 🖾 (lf no	, explain in Remarks.)										
Are Vegetation \Box , Soil \Box , or Hydrology	□, significantl	y disturbed?	Are "Normal Ci	cumstances" present?	Yes 🖾 No 🗌									
Are Vegetation □, Soil □, or Hydrology	□, naturally p	roblematic?	(If needed, exp	ain any answers in Rem	narks.)									
SUMMARY OF FINDINGS - Attach site man sh	owing sampl	ing point k	ocations transec	ts important featur	es etc									
Hydrophytic Vegetation Present?				is, important reature	es, etc.									
Hydric Soil Present?	Yes 🗌	No 🖾												
Wetland Hydrology Present?	Yes 🗌	No 🛛 Ia	the Sampling Area	within a Wotland?										
Remarks:			s the Sampling Area	within a wettand?										
Upland comparison point. Dry conditions at time of t	the delineation.													
VEGETATION – Use scientific names of plants	5													
Tree Stratum (Plot Size:)	Absolute Do % Cover Sp	ominant l becies? 3	Indicator Status Domina	nce Test Worksheet:										
1			Number	of Dominant Species										
2			That Are	OBL, FACW, or FAC:	<u>u</u> (A)									
3			Total Nu	mber of Dominant	2 (B)									
4			Species	Across All Strata:	<u>z</u> (B)									
	=	Total Cover	Percent	of Dominant Species	0 (A/B)									
Sapling/Shrub Stratum (Plot Size:)			That Are	OBL, FACW, or FAC:	- ((()))									
1			Prevale	nce Index worksheet:										
2			<u>T</u>	otal % Cover of:	Multiply by:									
3			OBL spe	;cies	x1 =									
4			FACW s		x2 =									
5			FAC spe		x3 =									
	=	I otal Cover	FACU s	Jecles	x4 =									
<u>Herb Stratum (</u> Plot Size: <u>5'</u>)			UPL spe	cies	x5 =									
1. Poa pratensis	<u>50 ye</u>	<u>s</u>	FACU Column	Totals:	(A) (B)									
2. Bromus inermis	<u>40 ye</u>	<u>s</u> <u>l</u>	UPL	Prevalence Ir	ndex = B/A =									
3. Lactuca serriola	<u>10</u> <u>no</u>	<u>)</u> <u> </u>	FACU Hydrop	nytic Vegetation Indica	ators:									
4				1 – Rapid Test for H	ydrophytic Vegetation									
5	<u> </u>			2 - Dominance Test	is >50%									
6	<u> </u>			3 – Prevalence Inde	x is ≤3.0 ¹									
8.				4 - Morphological Ad	laptations ¹ (Provide supporting data in									
9.				Remarks or on a	a separate sneet)									
10.				or of bydria apil and wa	tland hydrology must be present									
	100 =	 Total Cover	unless d	isturbed or problematic.										
Woody Vine Stratum (Plot Size:)														
1														
2														
	=	Total Cover	—											
% Bare Ground in Herb Stratum 0			Hydrop	hytic Vegetation Prese	ent? Yes 🗌 No 🖂									
Remarks:														

SOIL								Samplin	ig Point: 2		
Profile Des	cription: (Describe t	o the depth need	led to doc	ument the ind	icator or confirm the	absence of inc	dicators.)				
Depth	Matrix			Red	dox Features		_				
(inches)	Color (moist)	%	Color (Mo	oist) %	6 Type ¹	Loc ²	Texture		Remar	ks	
<u>0-6</u>	<u>10YR 2/2</u>	<u>100</u>					<u>l</u>				
<u>6-16</u>	<u>2.5Y 4/2</u>	<u>100</u>					<u>l</u>				
¹ Type: C= C	oncentration, D=Dep	oletion, RM=Red	uced Matr	ix, CS=Cover	ed or Coated Sand 0	Grains. ² Locat	tion: PL=Por	e Lining, M=Matı	rix		
Hydric Soil	Indicators: (Applica	able to all LRRs,	unless oth	erwise noted.)		Indic	ators for Proble	ematic Hydric	Soils ³ :	
Histos	sol (A1)			Sandy Gleye	ed Matrix (S4)			1 cm Muck (As	9) (LRR I, J)		
Histic	Epipedon (A2)			Sandy Redo	ox (S5)			Coast Prairie F	Redox (A16) (I	LRR F, G, H	H)
Black	Histic (A3)			Stripped Ma	trix (S6)			Dark Surface ((S7) (LRR G)		
☐ Hydro	gen Sulfide (A4)			Loamy Much	ky Mineral (F1)			High Plains De	epressions (F1	6)	
Stratif	ied Layers (A5) (LRF	R F)		Loamy Gley	ed Matrix (F2)			(LRR H outs	side of MLRA	72 & 73)	
□ 1 cm l	Muck (A9) (LRR F, G	6, H)		Depleted Ma	atrix (F3)			Reduced Verti	ic (F18)		
Deple	ted Below Dark Surfa	ace (A11)		Redox Dark	Surface (F6)			Red Parent Ma	aterial (TF2)		
Thick	Dark Surface (A12)			Depleted Da	ark Surface (F7)			Very Shallow I	Dark Surface (TF 12)	
Sandy	/ Mucky Mineral (S1))		Redox Depr	essions (F8)			Other (Explain	in Remarks)		
2.5 CI	M Mucky Peat or Pea	at (S2)(LRR G, H	I) 🗆	High Plains	Depressions (F16)		3India bydra	cators of hydroph	ytic vegetation	h and wetlar disturbed or	ıd
🗌 5 cm l	Mucky Peat or Peat ((S3) (LRR F)		(MLRA 72	& 73 of LRR H)		probl	ematic.			
Restrictive	Layer (if present):										
Туре:											
Depth (Inch	es):						Hydr	ic Soils Present	t? Yes	□ No	\boxtimes
Remarks:											
HYDROLO	DGY										
Wetland Hy	drology Indicators:	:									
Primary Indi	cators (minimum of o	one required; che	eck all that	t apply)			Secon	dary Indicators (2	2 or more requ	iired)	
Surfa	ce Water (A1)			Salt Crust (E	311)			Surface Soil Crac	cks (B6)		_
High	Water Table (A2)			Aquatic Inve	ertebrates (B13)			Sparsely Vegetat	ed Concave S	urface (B8)	
Satur	ation (A3)			Hydrogen S	ulfide Odor (C1)			Drainage Pattern	s (B10)		
			_								(00)

Wetl	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one re	equired	; check	all that	t apply)		Seco	ondary Indicators (2	or more	required)	
	Surface Water (A1)					Salt Crust (B11)			Surface Soil Crack	(B6)			
	High Water Table (A2))				Aquatic Invertebrates (B13)			Sparsely Vegetate	d Conca	ive Surfa	ce (B8)	
	Saturation (A3)					Hydrogen Sulfide Odor (C1)			Drainage Patterns	(B10)			
	Water Marks (B1)					Dry Season Water Table (C2)					ng Living) Roots (C3)
	Sediment Deposits (B2)					Oxidized Rhizospheres along Living Roots (C3) (where tilled)							
	Drift Deposits (B3)					(where not tilled)			Crayfish Burrows ((C8)			
	Algal Mat or Crust (B4)					Presence of Reduced Iron (C4)			Saturation Visible	on Aeria	l Imagery	(C9)	
	Iron Deposits (B5)					Thin Muck Surface (C7)	Geomorphic Positi	ion (D2)					
	Inundation Visible on	Aerial Im	agery (E	37)		Other (Explain in Remarks)							
	Water-Stained Leav	ves (B9))						Frost-Heave Humr	nocks (E)7) (LRR	F)	
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
Satuı (inclu	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetland	d Hyc	drology Present?	Yes		No	\boxtimes
Desc	ribe Recorded Data (st	ream gau	lge, mo	nitoring	, well, a	aerial photos, previous inspections), if avail	able:						
Rem	arks:												
1													

WETLAND DET	ERMINA	TION DAT	A FORM	– Great	Plains R	legion			
Project Site: <u>Stanley Municipal Airport</u>			City/Cou	unty: 5	<u>Stanley /</u> Mountrail	Sam	pling Date:	9/24/2020	<u>0</u>
Applicant/Owner: <u>Mead & Hunt</u>				5	State: <u>ND</u>	<u>Sam</u>	pling Point	: <u>3</u>	
Investigator(s): <u>GWM & DEV</u>			Section,	Township, R	ange: <u>29-</u>	156-91			
Landform (hillslope, terrace, etc.): depression		Local	relief (conca	ave, convex, r	none): <u>Co</u>	ncave		Slope (%):	<u>1</u>
Subregion (LRR): F Lat: 48.300	<u>018</u>		Long: <u>-1</u>	02.399052		Datu	m: <u>NAD 8</u>	83	
Soil Map Unit Name: <u>C800A Appam sandy loam, 2-6</u>	% slopes				NV	VI classifica	tion: <u>na</u>		
Are climatic / hydrologic conditions on the site typical for	this time of y	vear? Yes	🗆 No [🛛 (If no, ex	kplain in Ren	narks.)			
Are Vegetation D, Soil D, or Hydrology	□, significa	antly disturbed?	? Are "I	Normal Circur	mstances" pr	resent?	Yes 🛛	No 🗌	
Are Vegetation D, Soil D, or Hydrology	□, naturall	y problematic?	(If ne	eded, explain	any answer	s in Remark	s.)		
SUMMARY OF FINDINGS – Attach site map sh	nowing san	npling point	locations,	transects,	important	features,	etc.		
Hydrophytic Vegetation Present?	Yes 🛛	No 🗌							
Hydric Soil Present?	Yes 🛛	No 🗌							
Wetland Hydrology Present?	Yes 🛛	No 🗌	Is the Samp	ling Area wit	thin a Wetla	nd? Yes	s 🛛	No]
Remarks:									
Constructed wetland along storm water removal sys	tem. Dry co	nditions at tim	e of the del	ineation.					
VEGETATION – Use scientific names of plants	s								
Tree Stratum (Plot Size:)	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance	e Test Work	sheet:			
1				Number of [Dominant Sp	ecies ,		(A)	
2				That Are OB	BL, FACW, c	or FAC:	<u> </u>	(A)	
3				Total Numb	er of Domina	ant a		(B)	
4				Species Acr	ross All Strat	ta: ·	<u>.</u>	(0)	
		= Total Cover		Percent of D	Dominant Sp	ecies e	7	(A/B)	
Sapling/Shrub Stratum (Plot Size:)				That Are OB	BL, FACW, c	or FAC:		(7,0)	
1				Prevalence	Index work	ksheet:			
2				<u>Total</u>	I % Cover of	<u>.</u> <u>N</u>	Aultiply by:		
3				OBL species	s _	x	.1 =		
4				FACW spec	ies _	×	2 =		
5				FAC species	s	×	3 =		
		= Total Cover		FACU spec	ies _	×	4 =		
<u>Herb Stratum (</u> Plot Size: <u>5'</u>)				UPL species	s _	x	:5 =		
1. Hordeum jubatum	<u>30</u>	yes	FACW	Column Tot	als:	(A)	(B)	
2. Echinochloa crus-galli	20	yes	FAC	e olulini i ol	Preva	alence Index	k = B/A =		
3. Ambrosia psilostachya	20	yes	FACU	Hydrophyti	ic Vegetatio	n Indicator	s:		
4. <u>Sonchus arvensis</u>	10	no	FAC		1 – Rapid Te	est for Hydro	phytic Veg	etation	
5				x	2 - Dominan	ice Test is >	50%		
6.					3 Provalor	nco Indox ic	<2 0 ¹		
7									
8				· '	4 - Morphoic Remarks	s or on a se	ations' (Pro parate shee	ovide suppor et)	ting data in
9					Problematic	Hydrophytic	vegetatior	n ¹ (Explain)	
10				¹ Indicators of	of hvdric soil	and wetland	d hvdroloav	must be pre	esent.
	<u>80</u>	= Total Cover		unless distu	irbed or prob	ematic.			,
Woody Vine Stratum (Plot Size:)									
1									
2									
_		= Total Cover							
% Bare Ground in Herb Stratum 20				Hydrophyti	ic Vegetatio	n Present?	Yes		No 🗆
Remarks:									
rtomonto.									

SOIL								Sampling Point: 3
Profile	Description: (Describe to the second	ne depth ne	eded to doc	ument the indic	cator or confirm the	absence of inc	licators.)	
Dep	th Matrix			Red	ox Features			
(inches) Color (moist)	%	Color (Mo	ist) %	Туре	Loc ²	Textur	e Remarks
<u>0-7</u>	<u>10YR 2/2</u>	<u>96</u>	<u>7.5YR 5/</u>	<u>4 6</u>	<u>c</u>	<u>m</u>	<u>I</u> .	
<u>7-1</u>	<u>6 2.5Y 4/2</u>	<u>100</u>					<u>cl</u>	
¹ Type: (C= Concentration, D=Deplet	ion, RM=Re	educed Matr	ix, CS=Covere	d or Coated Sand G	Grains. ² Locat	ion: PL=Po	pre Lining, M=Matrix
Hydric	Soil Indicators: (Applicable	e to all LRR	s, unless oth	erwise noted.)			Indi	cators for Problematic Hydric Soils ³ :
ПН	istosol (A1)			Sandy Gleye	d Matrix (S4)			1 cm Muck (A9) (LRR I, J)
ПН	istic Epipedon (A2)			Sandy Redox	< (S5)			Coast Prairie Redox (A16) (LRR F, G, H)
□ в	lack Histic (A3)		Stripped Mat	rix (S6)			Dark Surface (S7) (LRR G)	
ПН	ydrogen Sulfide (A4)			Loamy Muck	y Mineral (F1)			High Plains Depressions (F16)
🗆 s	tratified Layers (A5) (LRR F)		Loamy Gleye	ed Matrix (F2)			(LRR H outside of MLRA 72 & 73)
□ 1	cm Muck (A9) (LRR F, G, F	I)		Depleted Ma	trix (F3)			Reduced Vertic (F18)
	epleted Below Dark Surface	e (A11)	\boxtimes	Redox Dark	Surface (F6)			Red Parent Material (TF2)
ПТ	hick Dark Surface (A12)			Depleted Dar	k Surface (F7)			Very Shallow Dark Surface (TF 12)
□ s	andy Mucky Mineral (S1)			Redox Depre	essions (F8)			Other (Explain in Remarks)
□ 2	5 CM Mucky Peat or Peat (S2)(LRR G,	H) 🗌	High Plains [Depressions (F16)		°Ind hvdi	icators of hydrophytic vegetation and wetland rology must be present unless disturbed or
5	cm Mucky Peat or Peat (S3) (LRR F)		(MLRA 72 8	& 73 of LRR H)		prob	plematic.
Restric	tive Layer (if present):							
Type:								
Depth (Inches):						Hyd	Iric Soils Present? Yes 🛛 No 🗌
Remark	is:							
НУПР								
Wetlan	d Hydrology Indicators:							

Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Surface Soil Cracks (B6) Salt Crust (B11) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Aquatic Invertebrates (B13) Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Water Marks (B1) Dry Season Water Table (C2) Oxidized Rhizospheres along Living Roots (C3) Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3) (where tilled) (where not tilled) Drift Deposits (B3) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) \boxtimes Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) \boxtimes FAC-Neutral Test (D5) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Surface Water Present? Yes No \boxtimes Depth (inches): Water Table Present? \boxtimes Yes No Depth (inches): Saturation Present? \boxtimes Wetland Hydrology Present? Yes \boxtimes Yes No Depth (inches): No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

WETLAND DET	ERMINATION DAT	A FORM – Great Plains Region
Project Site: <u>Stanley Municipal Airport</u>		City/County: <u>Stanley /</u> Mountrail Sampling Date: <u>9/24/2020</u>
Applicant/Owner: Mead & Hunt		State: <u>ND</u> Sampling Point: <u>4</u>
Investigator(s): <u>GWM & DEV</u>		Section, Township, Range: <u>29-156-91</u>
Landform (hillslope, terrace, etc.): <u>slope</u>	Local	relief (concave, convex, none): <u>convex</u> Slope (%): <u>2</u>
Subregion (LRR): <u>F</u> Lat: <u>48.300</u>	037	Long: <u>-102.398993</u> Datum: <u>NAD 83</u>
Soil Map Unit Name: <u>C800A Appam sandy loam, 2-6</u>	% slopes	NWI classification: <u>na</u>
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes	🔲 No 🖾 (If no, explain in Remarks.)
Are Vegetation 🔲, Soil 🔲, or Hydrology	□, significantly disturbed?	? Are "Normal Circumstances" present? Yes 🛛 No 🗌
Are Vegetation 🔲, Soil 🔲, or Hydrology	□, naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	nowing sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ∐ No ⊠	
Hydric Soil Present?	Yes 🗋 No 🖂	
Wetland Hydrology Present?	Yes 🗋 No 🖾 🛛	is the Sampling Area within a Wetland? Yes 🗌 No 🛛
Remarks:		
Upland comparison point. Dry conditions at time of	the delineation.	
VEGETATION - Use scientific names of plant		
Tree Stratum (Plot Size:	Absolute Dominant	Indicator Dominance Test Worksheet:
	<u>% Cover</u> Species?	<u>Status</u>
1		Number of Dominant Species That Are OBL_EACW_or_EAC'
2		
3		Total Number of Dominant Species Across All Strata: <u>2</u> (B)
4	= Total Cover	
Sapling/Shrub Stratum (Plot Size:)		That Are OBL, FACW, or FAC: 0 (A/B)
1		Prevalence Index worksheet:
2		Total % Cover of: Multiply by:
3		OBL species x1 =
4		FACW species x2 =
5		FAC species x3 =
	= Total Cover	FACU species x4 =
<u>Herb Stratum (</u> Plot Size: <u>5'</u>)		UPL species x5 =
1 Poa pratensis	50 ves	FACU Column Totolo: (A) (B)
2 Bromus inermis	50 ves	
3	<u></u>	Hydronbytic Vegetation Indicators:
4		1 – Rapid Test for Hydrophytic Vegetation
5.		2 - Dominance Test is >50%
6.		
7.		3 – Prevalence Index is ≤3.0'
8.		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9		Problematic Hydrophytic Vegetation ¹ (Explain)
10		¹ Indicators of hvdric soil and wetland hvdrology must be present.
	100 = Total Cover	unless disturbed or problematic.
Woody Vine Stratum (Plot Size:)		
1		
2		
	= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>		Hydrophytic Vegetation Present? Yes 🗌 No 🖂
Remarks:		

SOIL								Sampling Point: 4
Profile De	escription: (Describe to the secret of the s	the depth neede	ed to doc	ument the indicator	or confirm the a	bsence of indi	cators.)	
Depth	Matrix			Redox Fe	eatures			
(inches)	Color (moist)	<u>%</u> C	Color (Mo	oist) %	Type ¹	Loc ²	Texture	Remarks
0-6	<u>10YR 2/2</u>	<u>100</u>					<u>l</u>	
<u>6-16</u>	<u>2.5Y 4/2</u>	<u>100</u>					<u>I</u>	
¹ Type: C=	Concentration, D=Deple	tion, RM=Redu	ced Matr	ix, CS=Covered or	Coated Sand G	ains. ² Locatio	on: PL=Por	re Lining, M=Matrix
Hydric So	bil Indicators: (Applicabl	e to all LRRs, u	nless oth	erwise noted.)			Indic	ators for Problematic Hydric Soils ³ :
Histe	osol (A1)			Sandy Gleyed Ma	trix (S4)			1 cm Muck (A9) (LRR I, J)
Histi	ic Epipedon (A2)			Sandy Redox (S5)			Coast Prairie Redox (A16) (LRR F, G, H)
Blac	ck Histic (A3)			Stripped Matrix (S	6)			Dark Surface (S7) (LRR G)
Hyd	rogen Sulfide (A4)			Loamy Mucky Mir	neral (F1)			High Plains Depressions (F16)
Stra	tified Layers (A5) (LRR I	=)		Loamy Gleyed Ma	atrix (F2)			(LRR H outside of MLRA 72 & 73)
□ 1 cm	n Muck (A9) (LRR F, G, I	H)		Depleted Matrix (F	=3)			Reduced Vertic (F18)
🗌 Dep	leted Below Dark Surfac	e (A11)		Redox Dark Surfa	ice (F6)			Red Parent Material (TF2)
☐ Thic	k Dark Surface (A12)			Depleted Dark Su	rface (F7)			Very Shallow Dark Surface (TF 12)
	dy Mucky Mineral (S1)			Redox Depression	ns (F8)		□ 31mdii	Other (Explain in Remarks)
2.5 (CM Mucky Peat or Peat	(S2)(LRR G, H)		High Plains Depre	essions (F16)		hydro	blogy must be present, unless disturbed or
□ 5 cm	n Mucky Peat or Peat (S	3) (LRR F)		(MLRA 72 & 73	of LRR H)		probl	lematic.
Restrictiv	e Layer (if present):							
Туре:								
Depth (Inc	ches):						Hydr	ric Soils Present? Yes 🗌 No 🛛
Remarks:								
HYDROI	067							
Wetland H	-oon Hydrology Indicators:							
Primary In	dicators (minimum of on	e required: chec	k all that	apply)			Secon	dary Indicators (2 or more required)
	face Water (A1)			Salt Crust (B11)				Surface Soil Cracks (B6)
	h Water Table (A2)			Aquatic Invertebra	ates (B13)			Sparsely Vegetated Concave Surface (B8)
	uration (A3)			Hydrogen Sulfide	Odor (C1)			Drainage Patterns (B10)
	tor Morke (P1)			Dry Socoon Wate	- Table (C2)			Ovidized Phizopheres along Living Poets (C2)

Wetla	and Hydrology Indicat	ors:												
Prima	ary Indicators (minimum	of one re	equired	; check	all tha	t apply)		Sec	ondary Indicators (2	or more	required)		
	Surface Water (A1)					Salt Crust (B11)			Surface Soil Crack	(B6)				
	High Water Table (A2)				Aquatic Invertebrates (B13)			Sparsely Vegetate	d Conca	ive Surfa	ce (B8)		
	Saturation (A3)					Hydrogen Sulfide Odor (C1)			Drainage Patterns	(B10)				
	Water Marks (B1)					Dry Season Water Table (C2)	Oxidized Rhizosph	neres alo	ng Living	J Roots (C3)			
	Sediment Deposits (B2)					Oxidized Rhizospheres along Living Roots (C3) (where tilled)								
	Drift Deposits (B3)					(where not tilled)		Crayfish Burrows (C8)						
	Algal Mat or Crust (B4)					Presence of Reduced Iron (C4)			Saturation Visible	on Aeria	I Imagery	/ (C9)		
	Iron Deposits (B5)					Thin Muck Surface (C7)		Geomorphic Position (D2)						
	Inundation Visible on Aerial Imagery (B7)					Other (Explain in Remarks)		FAC-Neutral Test	(D5)					
	Water-Stained Leave	ves (B9))						Frost-Heave Humr	nocks (E	07) (LRR	F)		
Field	Observations:													
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):								
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):								
Satur (inclu	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetlar	nd Hyo	drology Present?	Yes		No	\boxtimes	
Desc	ribe Recorded Data (st	ream gau	lge, mo	onitoring	g well, a	aerial photos, previous inspections), if availa	able:							
Rem	arks:													

WETLAND DET	ERMINATION DATA	FORM – Great Plains Region
Project Site: <u>Stanley Municipal Airport</u>		City/County: <u>Stanley /</u> Mountrail Sampling Date: <u>9/24/2020</u>
Applicant/Owner: <u>Mead & Hunt</u>		State: <u>ND</u> Sampling Point: <u>5</u>
Investigator(s): <u>GWM & DEV</u>		Section, Township, Range: <u>29-156-91</u>
Landform (hillslope, terrace, etc.): depression	Local re	elief (concave, convex, none): <u>Concave</u> Slope (%): <u>1</u>
Subregion (LRR): F Lat: 48.300	<u>672</u>	Long: <u>-102.404435</u> Datum: <u>NAD 83</u>
Soil Map Unit Name: <u>C360B Livona fine sandy loam</u> ,	0-6% slopes	NWI classification: <u>na</u>
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes] No 🛛 (If no, explain in Remarks.)
Are Vegetation D, Soil D, or Hydrology	□, significantly disturbed?	Are "Normal Circumstances" present? Yes 🛛 No 🗌
Are Vegetation \Box , Soil \Box , or Hydrology	☐, naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	nowing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes 🛛 No 🗌	
Hydric Soil Present?	Yes 🛛 No 🗌	
Wetland Hydrology Present?	Yes 🛛 No 🗌 Is	the Sampling Area within a Wetland? Yes 🛛 No 🗌
Remarks:		
Naturally-occurring wetland that has been partially of	Irained. Dry conditions at tin	ne of the delineation.
VEGETATION – Use scientific names of plants	s Absolute Dominant Ir	ndicator
Tree Stratum (Plot Size:)	<u>% Cover</u> <u>Species?</u> <u>S</u>	Dominance lest Worksheet:
1		Number of Dominant Species 1 (A)
2		That are OBL, FACW, of FAC:
3		Total Number of Dominant
4		
Conling/Chrub Stratum (Diat Sizo:	= Total Cover	Percent of Dominant Species That Are OBL_EACW_or EAC: <u>100</u> (A/B)
Saping/Shrub Stratum (Plot Size:)		Provolonos Index workshoet
1		Prevalence index worksneet:
2		
3. <u></u>		
		FAC species X2 =
<u>. </u>	= Total Cover	
Herb Stratum (Plot Size: 5)		UPL species x5 =
1. Phalaris arundinacea	<u>70 yes F</u>	ACW Column Totals: (A) (B)
2. <u>Poa pratensis</u>	<u>20 no F</u>	ACU Prevalence Index = B/A =
3. <u>Melilotus officinalis</u>	<u>20 no F</u>	ACU Hydrophytic Vegetation Indicators:
4		1 – Rapid Test for Hydrophytic Vegetation
5		2 - Dominance Test is >50%
6 7		3 – Prevalence Index is ≤3.0 ¹
8		4 - Morphological Adaptations ¹ (Provide supporting data in
·		Remarks or on a separate sheet)
9		Problematic Hydrophytic Vegetation' (Explain)
10		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
Weeder Vine Stratum (Diet Sizer	<u>110</u> = Total Cover	
woody vine Stratum (Piot Size:)		
·		—
2	- Tot-1 0	—
% Baro Cround in Harb Stratum 0		Hydrophytic Vagatation Bracont? Vac M No 🗆
Remarks:		

SOIL											Sampling P	oint: 5			
Profil	e Descri	ption: (Describe to	o the depth nee	ded to docu	ument th	ne indicato	r or confirm the	absence of inc	licators.)					
De	pth	Matrix				Redox F	eatures		_						
(inche	es)	Color (moist)	%	Color (Moi	st)	%	Type ¹	Loc ²	Tex	ture		Rem	arks		
<u>0</u>	-5	<u>10YR 2/1</u>	<u>100</u>							<u>I</u>					
<u>5-</u>	- <u>16</u>	<u>2.5Y 6/1</u>	<u>94</u>	<u>7.5YR 5/4</u>	<u>1</u>	<u>6</u>	<u>c</u>	<u>m</u>		<u>cl</u>					
				<u> </u>					_						
									_						
_									_						
_									_						
_									_						
									-						
¹ Type	: C= Con	centration, D=Dep	oletion, RM=Red	duced Matri	x, CS=0	Covered or	r Coated Sand G	Grains. ² Locat	ion: PL=	Pore	Lining, M=Matrix				
Hydri	c Soil In	dicators: (Applica	ble to all LRRs,	unless oth	erwise r	noted.)			lı -	ndica	tors for Problema	tic Hydr	ic Soils	S ³ :	
	Histosol	(A1)			Sandy	Gleyed M	atrix (S4)		L	_	1 cm Muck (A9) (L	.RR I, J)			
Histic Epipedon (A2)					Sandy	Redox (S	5)		L	_	Coast Prairie Red	ox (A16)		F, G, H)
	Black His	stic (A3)		Supped Maula (So)						_	Dark Surface (S7)	(LRR G)		
	Hydroge	n Sulfide (A4)		Loamy Mucky Mineral (F1) Li High Plains Depressions (F16)						⊢16) 					
	Stratified	Layers (A5) (LRR	RF)		Loamy	/ Gleyed N	latrix (F2)		-	(LRR H outside of MLRA 72 & 73)					
	1 cm Mu	ick (A9) (LRR F, G	i, H)		Deplet	ed Matrix	(F3)		L		Reduced Vertic (F	18)			
	Depleted	Below Dark Surfa	ace (A11)		Redox	Dark Surf	ace (F6)		L		Red Parent Materi	al (TF2)			
	Thick Da	ark Surface (A12)			Deplet	ed Dark S	urface (F7)		L	_	Very Shallow Dark	Surface	e (TF 12	2)	
		lucky Mineral (S1)			Redox		ons (F8)		L 3	_l Indica	Other (Explain in F	venetati) on and	wetland	d
	2.5 CIVI I	viucky Peat of Pea	at (52)(LRR G, I	H) 🗆					h	ydrolo	bgy must be preser	t, unles	s disturl	bed or	a
	5 cm Mu	icky Peat or Peat (53) (LRR F)			(A / Z & / 3	S OF LKK H)		p	robler	natic.				
Turne		iyei (ii present).													
Type:	(Inchoo)												-		_
Depth	(Inches)								F	lydric	Soils Present?	Yes		No	
Reilla	165.														

HYDROLOGY

Wetl	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one re	equired	; check	all tha	t apply)	Sec	ondary Indicators (2	or more	required)		
	Surface Water (A1)					Salt Crust (B11)		Surface Soil Crack	s (B6)				
	High Water Table (A2))				Aquatic Invertebrates (B13)		Sparsely Vegetated Concave Surface (B8)					
	Saturation (A3)					Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)					
	Water Marks (B1)					Dry Season Water Table (C2)						C3)	
	Sediment Deposits (B2)					Oxidized Rhizospheres along Living Roots (C3) (where tilled)							
	Drift Deposits (B3)					(where not tilled)		Crayfish Burrows (C8)				
	Algal Mat or Crust (B4	+)				Presence of Reduced Iron (C4)		Saturation Visible	on Aerial	Imagery	/ (C9)		
	Iron Deposits (B5)					Thin Muck Surface (C7)	Geomorphic Position (D2)						
Inundation Visible on Aerial Imagery (B7)						Other (Explain in Remarks)	\boxtimes	FAC-Neutral Test (D5)					
	Water-Stained Leav	ves (B9))					Frost-Heave Humn	nocks (C	97) (LRR	F)		
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
Satuı (inclu	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetland Hy	drology Present?	Yes	\boxtimes	No		
Desc	ribe Recorded Data (st	ream gau	uge, mc	nitoring	g well, a	aerial photos, previous inspections), if avail	lable:						
Rem	arks:												

WETLAND DET		TION DAT	A FORM	 Great Plains Region 	
Project Site: <u>Stanley Municipal Airport</u>			City/Cou	nty: <u>Stanley /</u> Mountrail Sampling Date: <u>9/24/2020</u>	
Applicant/Owner: Mead & Hunt				State: <u>ND</u> Sampling Point: <u>6</u>	
Investigator(s): <u>GWM & DEV</u>			Section,	Township, Range: <u>29-156-91</u>	
Landform (hillslope, terrace, etc.): <u>slope</u>		Loca	I relief (conca	ve, convex, none): <u>convex</u> Slope (%): <u>2</u>	
Subregion (LRR): F Lat: 48.3006	<u>637</u>		Long: <u>-10</u>	<u>12.404433</u> Datum: <u>NAD 83</u>	
Soil Map Unit Name: <u>C360B Livona fine sandy loam,</u>	0-6% slopes			NWI classification: <u>na</u>	
Are climatic / hydrologic conditions on the site typical for	this time of y	vear? Yes	🗆 No 🗵	☑ (If no, explain in Remarks.)	
Are Vegetation \Box , Soil \Box , or Hydrology	□, significa	antly disturbed	? Are "N	Jormal Circumstances" present? Yes 🛛 No 🗌	
Are Vegetation \Box , Soil \Box , or Hydrology	□, naturall	y problematic?	? (If nee	eded, explain any answers in Remarks.)	
			la antiana d		
SUMMART OF FINDINGS – Attach site map site			locations,	transects, important features, etc.	
Hydric Soil Present?					
Wetland Hydrology Present?					
			Is the Sampl	ing Area within a Wetland? Yes 📋 No 🛛	
Remarks:	he delinesti				
opiand comparison point. Dry conditions at time of	the defineati	on.			
VEGETATION – Use scientific names of plants	5				
Tree Stratum (Plot Size:)	Absolute	Dominant	Indicator	Dominance Test Worksheet:	
1	<u>% Cover</u>	<u>Species ?</u>	Status	Number of Deminent Creases	
2.				That Are OBL, FACW, or FAC: \mathbf{Q} (A)	
3.				Total Number of Dominant	
4.				Species Across All Strata: <u>1</u> (B)	
		= Total Cover	r	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot Size:)				That Are OBL, FACW, or FAC: \mathbf{Q} (A/B)	
1				Prevalence Index worksheet:	
2.				Total % Cover of: Multiply by:	
3				OBL species x1 =	
4				FACW species x2 =	
5				FAC species x3 =	
		= Total Cover	r	FACU species x4 =	
<u>Herb Stratum (</u> Plot Size: <u>5'</u>)				UPL species x5 =	
1 Poa pratensis	100	ves	FACU	Column Totolo: (A) (B)	
2	<u></u>	<u></u>		Prevalence Index = B/A =	
3				Hydrophytic Vegetation Indicators:	
4.				1 – Rapid Test for Hydrophytic Vegetation	
5.				2 - Dominance Test is >50%	
6.				2 Browelence Index is < 2.01	
7.				<u> </u>	
8				 4 - Morphological Adaptations' (Provide supporting dat Remarks or on a separate sheet) 	ta in
9				Problematic Hydrophytic Vegetation ¹ (Explain)	
10				¹ Indicators of hydric soil and wetland hydrology must be present.	
	<u>100</u>	= Total Cover	r	unless disturbed or problematic.	
Woody Vine Stratum (Plot Size:)			F		
1					
2					
		= Total Cover	r		
% Bare Ground in Herb Stratum 0				Hydrophytic Vegetation Present? Yes 🗌 No	\boxtimes
Remarks:					

SOIL								Sampling	Point: 6		
Profile Des	cription: (Describe to the	ne depth need	ed to doc	ument the indicator	or confirm the	absence of indi	cators.)				
Depth	Matrix			Redox F	eatures						
(inches)	Color (moist)	% (Color (Mo	oist) %	Type ¹	Loc ²	Texture		Remar	ks	
<u>0-8</u>	<u>10YR 2/2</u>	<u>100</u>					<u>I</u>				
<u>8-16</u>	2.5Y 4/2	<u>100</u>					<u>clay</u>				
								<u> </u>			
								<u> </u>			
¹ Type: C= C	Concentration, D=Deplet	ion, RM=Redu	iced Matr	ix, CS=Covered or	Coated Sand G	Grains. ² Location	on: PL=Por	e Lining, M=Matrix			
Hydric Soil	I Indicators: (Applicable	to all LRRs, ι	inless oth	erwise noted.)			Indic	ators for Problem	atic Hydric	Soils ³ :	
Histor	sol (A1)			Sandy Gleyed Ma	atrix (S4)			1 cm Muck (A9)	(LRR I, J)		
	Epipedon (A2)			Sandy Redox (S5)			Coast Prairie Re	dox (A16) (L	_RR F, G, I	H)
∐ Black	Histic (A3)			Stripped Matrix (S	\$6) 			Dark Surface (S	7) (LRR G)	-	
	ogen Sulfide (A4)			Loamy Mucky Mir	neral (F1)			High Plains Dep	ressions (F1	6)	
∐ Strati	fied Layers (A5) (LRR F)		Loamy Gleyed Ma	atrix (F2)		_	(LRR H outsid	le of MLRA	72 & 73)	
	Muck (A9) (LRR F, G, H	l)		Depleted Matrix (F3)			Reduced Vertic	(F18)		
	eted Below Dark Surface	(A11)		Redox Dark Surfa	ace (F6)			Red Parent Mate	erial (TF2)		
	Dark Surface (A12)			Depleted Dark Su	rface (F7)			Very Shallow Da	rk Surface (TF 12)	
	y Mucky Mineral (S1)			Redox Depression	NS (F8)		³ Indic	Other (Explain in ators of hydrophyt	i Remarks) ic vegetatior	and wetlar	nd
□ 2.5 C	Mucky Pear of Pear (3) []				hydro	logy must be pres	ent, unless c	listurbed or	
Restrictive	l aver (if present):			(WILKA 12 & 13			proble	ematic.			
Denth (Inch							1 h a she		N		
Remarks:							Hydr	ic Solis Present?	res		
rtomanto.											
	DGY										
Wetland Hy	vdrology Indicators:										
Primary Ind	icators (minimum of one	required; che	ck all that	t apply)			Second	dary Indicators (2 d	or more requ	ired)	
Surfa	ace Water (A1)			Salt Crust (B11)				Surface Soil Cracks	(B6)	-	
🗌 High	Water Table (A2)			Aquatic Invertebra	ates (B13)			Sparsely Vegetated	Concave S	urface (B8)	
			_							· · · /	

well	and Hydrology Indica	lors.											
Prim	ary Indicators (minimun	n of one r	equired	; check	all tha	t apply)		Sec	ondary Indicators (2	or more	required	l)	
	Surface Water (A1)					Salt Crust (B11)			Surface Soil Crack	(B6)			
	High Water Table (A2	?)				Aquatic Invertebrates (B13)			Sparsely Vegetate	d Conca	ave Surfa	ace (B8)	
	Saturation (A3)					Hydrogen Sulfide Odor (C1)			Drainage Patterns	(B10)			
	Water Marks (B1)					Dry Season Water Table (C2)			Oxidized Rhizosph	neres alc	ong Living	g Roots (C3)
	Sediment Deposits (E	32)				Oxidized Rhizospheres along Living Roots	s (C3)		(where tilled)				
	Drift Deposits (B3)					(where not tilled)			Crayfish Burrows ((C8)			
	Algal Mat or Crust (B4	4)				Presence of Reduced Iron (C4)			Saturation Visible	on Aeria	I Imager	y (C9)	
	Iron Deposits (B5)					Thin Muck Surface (C7)			Geomorphic Positi	on (D2)			
	Inundation Visible on	Aerial Im	agery (I	37)		Other (Explain in Remarks)			FAC-Neutral Test	(D5)			
	Water-Stained Lea	ves (B9)						Frost-Heave Humr	nocks ([D7) (LRR	F)	
Field	Observations:												
Surfa	ace Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
Satu (inclu	ration Present? ides capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetlan	nd Hye	drology Present?	Yes		No	\boxtimes
Desc	ribe Recorded Data (s	tream gai	uge, mo	onitoring	g well,	aerial photos, previous inspections), if availa	able:						
Rem	arks:												

WETLAND DET		FION DAT	A FORM	 Great Plains Region
Project Site: <u>Stanley Municipal Airport</u>			City/Cou	nty: <u>Stanley /</u> Sampling Date: <u>9/24/2020</u>
Applicant/Owner: Mead & Hunt				State: <u>ND</u> Sampling Point: <u>7</u>
Investigator(s): <u>GWM & DEV</u>			Section,	Township, Range: <u>29-156-91</u>
Landform (hillslope, terrace, etc.): <u>depression</u>		Loca	I relief (conca	ave, convex, none): <u>Concave</u> Slope (%): <u>1</u>
Subregion (LRR): F Lat: 48.300	<u>120</u>		Long: <u>-1(</u>	02.401974 Datum: <u>NAD 83</u>
Soil Map Unit Name: <u>C132B Williams-Zahl loams, 3-</u>	6% slopes			NWI classification: <u>na</u>
Are climatic / hydrologic conditions on the site typical for	this time of y	rear? Yes	□ No [2	If no, explain in Remarks.)
Are Vegetation D, Soil D, or Hydrology	□, significa	antly disturbed	? Are "N	Normal Circumstances" present? Yes 🛛 No 🗌
Are Vegetation \Box , Soil \Box , or Hydrology	□, naturall	y problematic?	? (If nee	eded, explain any answers in Remarks.)
				to an a first stand for the second stand
SUMMART OF FINDINGS – Attach site map sr			locations,	transects, important features, etc.
Hydrio Soil Prosont?	Voc 🕅			
Wetland Hydrology Propert?				
	Tes 🖂		Is the Samp	ling Area within a Wetland? Yes 🖂 No 📋
Remarks:				_
Shallow scrape within Airport storm water system. L	bry condition	is at time of th	ne delineatio	n.
VEGETATION - Use scientific names of plants	•			
Tree Stratum (Plot Size:	Absolute	Dominant	Indicator	Dominance Test Worksheet
	<u>% Cover</u>	Species?	<u>Status</u>	
1				Number of Dominant Species That Are OBL_FACW_or FAC' <u>3</u> (A)
2				
4				Species Across All Strata: <u>3</u> (B)
T		= Total Cover		
Sapling/Shrub Stratum (Plot Size:)				That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1				Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3				OBL species x1 =
4				FACW species x2 =
5				FAC species x3 =
		= Total Cover	r	FACU species x4 =
Herb Stratum (Plot Size: 5')				UPL species x5 =
1 Phalaris arundinacea	60	ves	FACW	Column Tatalou (A) (B)
2 Typha angustifolia	20	Ves	OBL	Column Totals: (r, r, r
3 Hordeum jubatm	<u>20</u> 20	ves	FACW	Hydronhytic Vegetation Indicators:
4.	20	<u>700</u>	<u></u>	1 – Rapid Test for Hydrophytic Vegetation
5.				x 2 - Dominance Test is >50%
6.				-
7.	_			3 – Prevalence index is \$3.0"
8				 4 - Morphological Adaptations ' (Provide supporting data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10				¹ Indicators of hydric soil and wetland hydrology must be present.
	<u>100</u>	= Total Cover	r	unless disturbed or problematic.
Woody Vine Stratum (Plot Size:)				
1				
2				
		= Total Cover	r	
% Bare Ground in Herb Stratum <u>0</u>				Hydrophytic Vegetation Present? Yes 🖂 No 🗌
Remarks:				

SOIL									Sampling P	oint: 7			
Profile	Description: (Describe to	o the depth need	ded to doc	ument t	he indicator	or confirm the	absence of ind	licators.)					
Dep	th Matrix				Redox Fe	atures		_					
(inches) Color (moist)	%	Color (Mo	ist)	%	Type ¹	Loc ²	Textu	re	Rem	arks		
<u>0-5</u>	<u>10YR 2/1</u>	<u>100</u>						<u>l</u>					
<u>5-1</u>	<u>6 2.5Y 5/1</u>	<u>94</u>	7.5YR 5/-	4	<u>6</u>	<u>c</u>	<u>m</u>	<u>c</u>	<u> </u>				
									<u> </u>				
									<u> </u>				
. —													
¹ Type: (C= Concentration, D=Dep	oletion, RM=Red	uced Matr	ix, CS=	Covered or (Coated Sand G	rains. ² Locat	ion: PL=P	ore Lining, M=Matrix				
Hydric	Soil Indicators: (Applica	ble to all LRRs,	unless oth	erwise	noted.)			Ind	licators for Problema	tic Hydr	ic Soils	S ³ :	
п п	istosol (A1)			Sandy	/ Gleyed Mat	trix (S4)			1 cm Muck (A9) (L	.RR I, J)			
ЦН	istic Epipedon (A2)			Sandy	Redox (S5)				Coast Prairie Red	ox (A16)		F, G, H)
ЦВ	lack Histic (A3)			Stripp	ed Matrix (S	6)			Dark Surface (S7)	(LRR G)		
ЦН	ydrogen Sulfide (A4)			Loam	y Mucky Min	eral (F1)			High Plains Depre	ssions (⊢16) 		
L S	tratified Layers (A5) (LRF	RF)		Loam	y Gleyed Ma	trix (F2)		_	(LRR H outside	of MLR	A 72 &	73)	
	cm Muck (A9) (LRR F, G	i, H)		Deple	ted Matrix (F	-3)			Reduced Vertic (F	18)			
	epleted Below Dark Surfa	ace (A11)		Redox	k Dark Surfa	ce (F6)			Red Parent Materi	al (TF2)			
	hick Dark Surface (A12)			Deple	ted Dark Sur	face (F7)			Very Shallow Dark	Surface	e (TF 12	2)	
	andy Mucky Mineral (S1)			Redox	C Depression	IS (F8)		3In	Other (Explain in F	venetati) on and	wetlan	Ч
	.5 CM Mucky Peat or Pea	at (S2)(LRR G, H	1) 🗆	High F	Plains Depre	ssions (F16)		hyc	drology must be preser	t, unles	s disturl	bed or	u
Destric	tive Laver (if present):	53) (LKK F)			KA / Z & / 3 (DT LKK H)		pro	blematic.				
Turner	tive Layer (il present).												
Type:											_		_
Depth (inches).							Hy	dric Soils Present?	Yes	\bowtie	No	
Remark	.5.												

HYDROLOGY

Wetl	and Hydrology Indicat	ors:										
Prima	ary Indicators (minimum	of one re	equired	; check	all tha	t apply)	Sec	ondary Indicators (2	or more	required))	
	Surface Water (A1)					Salt Crust (B11)		Surface Soil Crack	s (B6)			
	High Water Table (A2))				Aquatic Invertebrates (B13)		Sparsely Vegetate	d Conca	ve Surfa	ce (B8)	
	Saturation (A3)					Hydrogen Sulfide Odor (C1)		Drainage Patterns	(B10)			
	Water Marks (B1)					Dry Season Water Table (C2)		Oxidized Rhizosph	ieres alo	ng Living	Roots (C3)
	Sediment Deposits (B	2)				Oxidized Rhizospheres along Living Roo	ots (C3)	(where tilled)				
	Drift Deposits (B3)					(where not tilled)		Crayfish Burrows (C8)			
	Algal Mat or Crust (B4	+)				Presence of Reduced Iron (C4)		Saturation Visible	on Aerial	Imagery	(C9)	
	Iron Deposits (B5)					Thin Muck Surface (C7)	\boxtimes	Geomorphic Positi	on (D2)			
	Inundation Visible on	Aerial Im	agery (I	B7)		Other (Explain in Remarks)	\boxtimes	FAC-Neutral Test ((D5)			
	Water-Stained Leav	ves (B9))					Frost-Heave Humn	nocks (C	97) (LRR	F)	
Field	Observations:											
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):						
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):						
Satuı (inclu	ation Present? des capillary fringe)	Yes		No		Depth (inches):	Wetland Hy	drology Present?	Yes	\boxtimes	No	
Desc	ribe Recorded Data (st	ream gau	uge, mc	nitoring	g well, a	aerial photos, previous inspections), if avail	lable:					
Rem	arks:											

WETLAND DET			A FORM	 Great Plains Region 	
Project Site: <u>Stanley Municipal Airport</u>			City/Cour	nty: <u>Stanley /</u> Mountrail Sampling Date: <u>9/24/2020</u>	
Applicant/Owner: Mead & Hunt				State: <u>ND</u> Sampling Point: <u>8</u>	
Investigator(s): <u>GWM & DEV</u>			Section,	Township, Range: <u>29-156-91</u>	
Landform (hillslope, terrace, etc.): <u>slope</u>		Local	l relief (conca	ive, convex, none): <u>convex</u> Slope (%): <u>2</u>	
Subregion (LRR): <u>F</u> Lat: <u>48.300</u>	<u>158</u>		Long: <u>-10</u>	<u>)2.401950</u> Datum: <u>NAD 83</u>	
Soil Map Unit Name: C132B Williams-Zahl loams, 3-	6% slopes			NWI classification: <u>na</u>	
Are climatic / hydrologic conditions on the site typical for	this time of y	rear? Yes	🗆 No 🗵	☑ (If no, explain in Remarks.)	
Are Vegetation \Box , Soil \Box , or Hydrology	□, significa	antly disturbed	? Are "N	Jormal Circumstances" present? Yes 🛛 No 🗌	
Are Vegetation \Box , Soil \Box , or Hydrology	□, naturall	y problematic?	(If nee	eded, explain any answers in Remarks.)	
SUMMARY OF FINDINGS Attack site man al		nling noint	leastions	transacto important factures ato	
Hydrophytic Vegetation Present?			iocations,		
Hydric Soil Present?	Yes 🗆				
Wetland Hydrology Present?	Yes 🗌		la tha Comul	ling Area within a Watland? Yaa	
Pomorko:			is the Sampi	Ing Area within a wetland? Fes 📋 No 🖄	
Inland comparison point Dry conditions at time of	the delineati	on			
opiand comparison point. Dry conditions at time of	the defineation	011.			
VEGETATION – Use scientific names of plants	s				
Tree Stratum (Plot Size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:	
1			orano	Number of Dominant Species	
2				That Are OBL, FACW, or FAC: $\mathbf{\underline{0}}$ (A)	
3				Total Number of Dominant	
4.				Species Across All Strata: 2 (B)	
		= Total Cover		Percent of Dominant Species	
Sapling/Shrub Stratum (Plot Size:)				That Are OBL, FACW, or FAC:	
1				Prevalence Index worksheet:	
2				Total % Cover of: Multiply by:	
3				OBL species x1 =	
4				FACW species x2 =	
5				FAC species x3 =	
		= Total Cover		FACU species x4 =	
<u>Herb Stratum (</u> Plot Size: <u>5'</u>)				UPL species x5 =	
1. <u>Poa pratensis</u>	<u>40</u>	yes	FACU	Column Totals: (A) (B)	
2. Bromus inermis	<u>60</u>	<u>yes</u>	UPL	Prevalence Index = B/A =	
3			[Hydrophytic Vegetation Indicators:	
4				1 – Rapid Test for Hydrophytic Vegetation	
5				2 - Dominance Test is >50%	
6				3 – Prevalence Index is ≤3.0 ¹	
7				4 - Morphological Adaptations ¹ (Provide supporting data i	in
8				Remarks or on a separate sheet)	
9				Problematic Hydrophytic Vegetation ¹ (Explain)	
10				¹ Indicators of hydric soil and wetland hydrology must be present,	
	<u>100</u>	= Total Cover	_	unless disturbed or problematic.	
Woody Vine Stratum (Plot Size:)					
1					
2					
		= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>				Hydrophytic Vegetation Present? Yes 🗌 No 🖾	1
Remarks:					

SOIL								Sampling Point: 8
Profile Des	cription: (Describe to	o the depth need	ed to doc	ument the indicat	or or confirm the a	absence of ind	licators.)	
Depth	Matrix			Redox	Features		_	
(inches)	Color (moist)	% (Color (Mo	oist) %	Type ¹	Loc ²	Texture	Remarks
<u>0-7</u>	<u>10YR 2/2</u>	<u>100</u>					<u>I</u>	
<u>7-16</u>	<u>2.5Y 4/2</u>	<u>100</u>					<u>clay</u>	
								<u> </u>
								<u> </u>
								- <u> </u>
								<u> </u>
¹ Type: C= C	Concentration, D=Dep	letion, RM=Redu	iced Matr	rix, CS=Covered o	or Coated Sand G	rains. ² Locat	ion: PL=Pore	e Lining, M=Matrix
Hydric Soi	I Indicators: (Applica	ble to all LRRs, u	inless oth	nerwise noted.)			Indic	ators for Problematic Hydric Soils ³ :
Histo:	sol (A1)			Sandy Gleyed M	Matrix (S4)			1 cm Muck (A9) (LRR I, J)
Histic	Epipedon (A2)			Sandy Redox (S	S5)			Coast Prairie Redox (A16) (LRR F, G, H)
Black	Histic (A3)			Stripped Matrix	(S6)			Dark Surface (S7) (LRR G)
Hydro	ogen Sulfide (A4)			Loamy Mucky N	/lineral (F1)			High Plains Depressions (F16)
Strati	fied Layers (A5) (LRR	: F)		Loamy Gleyed I	Matrix (F2)			(LRR H outside of MLRA 72 & 73)
□ 1 cm	Muck (A9) (LRR F, G	, H)		Depleted Matrix	(F3)			Reduced Vertic (F18)
Deple	eted Below Dark Surfa	ace (A11)		Redox Dark Su	rface (F6)			Red Parent Material (TF2)
Thick	Dark Surface (A12)			Depleted Dark \$	Surface (F7)			Very Shallow Dark Surface (TF 12)
Sand	y Mucky Mineral (S1)			Redox Depress	ions (F8)		2	Other (Explain in Remarks)
□ 2.5 C	M Mucky Peat or Pea	t (S2)(LRR G, H)		High Plains Dep	pressions (F16)		³ Indic hvdro	ators of hydrophytic vegetation and wetland blogy must be present, unless disturbed or
□ 5 cm	Mucky Peat or Peat (S3) (LRR F)		(MLRA 72 & 7	3 of LRR H)		proble	ematic.
Restrictive	Layer (if present):							
Туре:								
Depth (Inch	les):						Hydri	ic Soils Present? Yes 🗌 No
Remarks:								
HYDROL	DGY							
Wetland Hy	vdrology Indicators:							
Primary Ind	icators (minimum of c	ne required; che	ck all that	t apply)			Second	dary Indicators (2 or more required)
Surfa	ace Water (A1)			Salt Crust (B11))			Surface Soil Cracks (B6)
☐ High	Water Table (A2)			Aquatic Inverte	orates (B13)			Sparsely Vegetated Concave Surface (B8)
Satu	ration (A3)			Hydrogen Sulfic	le Odor (C1)			Drainage Patterns (B10)
□ Wata	vr Marke (B1)			Dry Socoon Wa	tor Table (C2)			vidized Phizeenheree along Living Poets (C2

Wetl	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one re	equired	; check		Sec	ondary Indicators (2 c	or more	required)			
	Surface Water (A1)					Salt Crust (B11)			Surface Soil Cracks	s (B6)			
	High Water Table (A2)				Aquatic Invertebrates (B13)			Sparsely Vegetated	l Conca	ve Surfa	ce (B8)	
	Saturation (A3)					Hydrogen Sulfide Odor (C1)			Drainage Patterns ((B10)			
	Water Marks (B1)					Dry Season Water Table (C2)			Oxidized Rhizosphe	eres alo	ng Livinç	J Roots (C3)
	Sediment Deposits (B	2)				Oxidized Rhizospheres along Living Roo	ots (C3)		(where tilled)				
	Drift Deposits (B3)					(where not tilled)			Crayfish Burrows (0	C8)			
	Algal Mat or Crust (B4	•)				Presence of Reduced Iron (C4)			Saturation Visible o	n Aerial	Imagery	/ (C9)	
	Iron Deposits (B5)					Thin Muck Surface (C7)			Geomorphic Positio	on (D2)			
	Inundation Visible on	Aerial Im	agery (I	37)		Other (Explain in Remarks)			FAC-Neutral Test (I	D5)			
	Water-Stained Leave	ves (B9))						Frost-Heave Humm	iocks (D	97) (LRR	F)	
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
Satuı (inclu	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetlan	d Hyo	drology Present?	Yes		No	\boxtimes
Desc	ribe Recorded Data (st	ream gau	uge, mo	nitoring	g well, a	aerial photos, previous inspections), if avail	lable:						
Rem	arks:												

WETLAND DET	ERMINA		DAT		I – Great Plains Region
Project Site: <u>Stanley Municipal Airport</u>				City/Cou	unty: <u>Stanley /</u> Mountrail Sampling Date: <u>9/24/2020</u>
Applicant/Owner: Mead & Hunt					State: <u>ND</u> Sampling Point: <u>9</u>
Investigator(s): <u>GWM & DEV</u>				Section,	, Township, Range: <u>29-156-91</u>
Landform (hillslope, terrace, etc.): depression			Local	l relief (conc	ave, convex, none): <u>Concave</u> Slope (%): <u>1</u>
Subregion (LRR): <u>F</u> Lat: <u>48.300</u>	036			Long: <u>-1</u>	02.401181 Datum: <u>NAD 83</u>
Soil Map Unit Name: <u>C132B Williams-Zahl loams, 3-</u>	6% slopes				NWI classification: <u>na</u>
Are climatic / hydrologic conditions on the site typical for	this time of	year? Y	es	🗆 No [🛛 (If no, explain in Remarks.)
Are Vegetation \Box , Soil \Box , or Hydrology	□, signific	antly dist	urbed?	? Are "	Normal Circumstances" present? Yes 🛛 No 🗌
Are Vegetation \Box , Soil \Box , or Hydrology	□, natural	ly probler	natic?	(If ne	eeded, explain any answers in Remarks.)
			• .		
SUMMARY OF FINDINGS – Attach site map sr	iowing sar	npling p		locations,	, transects, important features, etc.
Hydrophytic vegetation Present?	res ⊠	No			
Hydric Soli Present?	Yes ⊠	NO			
Wetland Hydrology Present?	res 🖂	NO		Is the Samp	oling Area within a Wetland? Yes 🛛 No 🗌
Remarks:					
Shallow scrape within Airport storm water system.	Dry condition	ns at time	e of th	ne delineatio	on.
VECETATION Lies acientific names of plant					
Tree Stratum (Plot Size:)	Absolute	Domina	nt	Indicator	Dominanco Tost Workshoot
	% Cover	Species	<u>;?</u>	<u>Status</u>	Dominance rest worksheet.
1					Number of Dominant Species (A)
2	·				That Are ODE, I AGW, OF AG.
3	·			·	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
4		- Total	Cover		
Sapling/Shrub Stratum (Plot Size:)		= lotal	Cover		Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1					Prevalence Index worksheet:
2					Total % Cover of: Multiply by:
3					OBL species x1 =
4					FACW species x2 =
5					FAC species x3 =
		= Total	Cover		FACU species x4 =
<u>Herb Stratum (</u> Plot Size: <u>5'</u>)					UPL species x5 =
1 Eleocharis palustris	50	ves		OBI	Column Totolo: (A) (B)
2 Typha angustifolia	15	<u>,</u>			Column Totals. (3) (3)
3 Hordeum jubatm	30	Nes			Hydronbytic Vegetation Indicators:
4 Carex praegracilis	<u>00</u> 10	<u>ycs</u> no		FAC	1 – Rapid Test for Hydrophytic Vegetation
5.	10	<u>110</u>		1710	x 2 - Dominance Test is >50%
6.					
7.					3 – Prevalence Index is ≤3.0'
8					4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9.					Problematic Hydrophytic Vegetation ¹ (Explain)
10.					¹ Indicators of hydric soil and wetland hydrology must be present
	105	= Total	Cover		unless disturbed or problematic.
Woody Vine Stratum (Plot Size:)					
1					
2					
		= Total	Cover		
% Bare Ground in Herb Stratum 0					Hydrophytic Vegetation Present? Yes 🖂 No 🗆
Remarke:					
nomano.					

SOIL									Sampling Po	oint: 9		
Profile D	escription: (Describe to	o the depth nee	eded to doc	ument the	indicator	or confirm the a	absence of inc	licators.)				
Depth	Matrix				Redox Fe	eatures		_				
(inches)	Color (moist)	%	Color (Mo	ist)	%	Type ¹	Loc ²	Texture		Remar	s	
<u>0-5</u>	<u>10YR 2/1</u>	100						<u> </u>				
<u>5-16</u>	<u>2.5Y4/2</u>	<u>92</u>	7.5YR 5/	4	<u>8</u>	<u>c</u>	<u>m</u>	<u>cl</u>				
				-								
				-								
				-								
				-								
				-								
				-								
¹ Type: C=	Concentration, D=Dep	letion, RM=Re	duced Matr	ix, CS=Co	vered or (Coated Sand G	rains. ² Locat	ion: PL=Por	e Lining, M=Matrix			
Hydric S	oil Indicators: (Applica	ble to all LRRs	, unless oth	erwise not	ed.)			Indic	ators for Problemati	ic Hydric	Soils³:	
🗌 His	tosol (A1)			Sandy G	eyed Ma	trix (S4)			1 cm Muck (A9) (Lf	RR I, J)		
🗌 His	tic Epipedon (A2)			Sandy R	edox (S5)			Coast Prairie Redo	x (A16) (L	RR F, G, H	I)
🗌 Bla	ck Histic (A3)			Stripped	Matrix (S	6)			Dark Surface (S7) ((LRR G)		
🗌 Нус	drogen Sulfide (A4)			Loamy M	ucky Min	eral (F1)			High Plains Depres	sions (F1	6)	
Stra	atified Layers (A5) (LRR	: F)		Loamy G	leyed Ma	atrix (F2)			(LRR H outside	of MLRA	72 & 73)	
□ 1 c	m Muck (A9) (LRR F, G	, H)	\boxtimes	Depleted	Matrix (F	=3)			Reduced Vertic (F1	18)		
🗌 Dep	oleted Below Dark Surfa	ace (A11)		Redox D	ark Surfa	ce (F6)			Red Parent Materia	al (TF2)		
🗌 Thi	ck Dark Surface (A12)			Depleted	Dark Su	rface (F7)			Very Shallow Dark	Surface (FF 12)	
□ Sar	ndy Mucky Mineral (S1)			Redox D	epressior	ns (F8)		31	Other (Explain in R	emarks)		!
2.5	CM Mucky Peat or Pea	t (S2)(LRR G ,	H) 🗌	High Plai	ns Depre	essions (F16)		hydro	cators of hydrophytic volume of the present	t, unless d	isturbed or	10
□ 5 c	m Mucky Peat or Peat (S3) (LRR F)		(MLRA	72 & 73	of LRR H)		probl	lematic.	,		
Restricti	ve Layer (if present):											
Туре:												
Depth (In	ches):							Hydr	ric Soils Present?	Yes	🛛 No	
Remarks	:											

HYDROLOGY

Wetl	and Hydrology Indicat	ors:											
Prim	ary Indicators (minimum	of one re	equired	; check	all tha	t apply)		Sec	ondary Indicators (2 o	or more	required)	
	Surface Water (A1)					Salt Crust (B11)			Surface Soil Cracks	s (B6)			
	High Water Table (A2)				Aquatic Invertebrates (B13)			Sparsely Vegetated	d Conca	ve Surfa	ce (B8)	
	Saturation (A3)					Hydrogen Sulfide Odor (C1)			Drainage Patterns ((B10)			
	Water Marks (B1)					Dry Season Water Table (C2)			Oxidized Rhizosphe	eres alo	ng Living	3 Roots (C3)
	Sediment Deposits (B	2)				Oxidized Rhizospheres along Living Roo	ts (C3)		(where tilled)				
	Drift Deposits (B3)					(where not tilled)			Crayfish Burrows (0	C8)			
	Algal Mat or Crust (B4	ł)				Presence of Reduced Iron (C4)			Saturation Visible o	on Aerial	Imagery	/ (C9)	
	Iron Deposits (B5)					Thin Muck Surface (C7)		\boxtimes	Geomorphic Positio	on (D2)			
	Inundation Visible on	Aerial Im	agery (E	37)		Other (Explain in Remarks)		\boxtimes	FAC-Neutral Test (I	D5)			
	Water-Stained Leave	ves (B9))						Frost-Heave Humm	nocks (D	97) (LRR	F)	
Field	Observations:												
Surfa	ace Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
Satu (inclu	ration Present? ides capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetlan	d Hyo	drology Present?	Yes		No	
Desc	ribe Recorded Data (st	ream gau	uge, mo	nitoring	g well, a	aerial photos, previous inspections), if avail	lable:						
Rem	arks:												

WETLAND DET	ERMINA	TION DAT	A FORM	– Great Plains Region
Project Site: <u>Stanley Municipal Airport</u>			City/Cou	unty: <u>Stanley /</u> Sampling Date: <u>9/24/2020</u>
Applicant/Owner: Mead & Hunt				State: <u>ND</u> Sampling Point: <u>10</u>
Investigator(s): <u>GWM & DEV</u>			Section,	Township, Range: <u>29-156-91</u>
Landform (hillslope, terrace, etc.): <u>slope</u>		Loca	l relief (conca	ave, convex, none): <u>convex</u> Slope (%): <u>2</u>
Subregion (LRR): <u>F</u> Lat: <u>48.300</u>	<u>059</u>		Long: <u>-1</u>	02.401245 Datum: <u>NAD 83</u>
Soil Map Unit Name: <u>C360B Livona fine sandy loam</u> ,	0-6% slopes			NWI classification: <u>na</u>
Are climatic / hydrologic conditions on the site typical for	this time of y	vear? Yes	🗆 No [🛛 (If no, explain in Remarks.)
Are Vegetation D, Soil D, or Hydrology	□, significa	antly disturbed	? Are "I	Normal Circumstances" present? Yes 🛛 No 🗌
Are Vegetation \Box , Soil \Box , or Hydrology	□, naturall	y problematic?	(If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sl	nowing san	npling point	locations,	transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ∐	No 🖂		
Hydric Soll Present?	res ∐	NO 🖂		
Wetland Hydrology Present?	Yes 📋	NO	Is the Samp	ling Area within a Wetland? Yes 🗌 No 🛛
Remarks:				
Upland comparison point. Dry conditions at time of	the delineati	on.		
VEGETATION - Use scientific names of plant	-			
Tree Stratum (Plot Size:)	Absolute	Dominant	Indicator	Dominance Test Worksheet:
<u>1</u>	<u>% Cover</u>	Species?	<u>Status</u>	
2				Number of Dominant Species <u>0</u> (A)
2 3			·	
4				I otal Number of Dominant Species Across All Strata: <u>1</u> (B)
т		= Total Cover		
Sapling/Shrub Stratum (Plot Size:)				That Are OBL, FACW, or FAC: 0 (A/B)
, ,				Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3.				OBL species x1 =
4.				FACW species x2 =
5				FAC species x3 =
		= Total Cover		FACU species x4 =
Herb Stratum (Plot Size: 5')				UPL species x5 =
$\frac{1}{2} = \frac{1}{2} = \frac{1}$	00	VOC	EACU	
2 Crindelia aguerrada	<u>30</u>	<u>yes</u>		Column Totals: (A) (B)
	<u>10</u>	<u>110</u>	UFL	
3			·	1 - Ranid Test for Hydronbytic Vegetation
5				2 - Dominance Test is >50%
6.				
7.				3 – Prevalence Index is ≤3.0 ¹
8				 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
9.				Problematic Hydrophytic Vegetation ¹ (Explain)
10.				¹ Indicators of hydric soil and wetland hydrology must be present
	100	= Total Cover		unless disturbed or problematic.
Woody Vine Stratum (Plot Size:)				
1				
2				
		= Total Cover	. –	
% Bare Ground in Herb Stratum <u>0</u>				Hydrophytic Vegetation Present? Yes 🗌 No 🖂
Remarks:				

SOIL								Sampling	g Point: 10			
Profile Des	scription: (Describe to the	depth needec	d to doc	ument the indicato	r or confirm the a	absence of ind	icators.)					
Depth	Matrix			Redox F	[:] eatures		_					
(inches)	Color (moist)	% Co	olor (Mo	oist) %	Type ¹	Loc ²	Texture		Rem	arks		
0-6	<u>10YR 2/2</u>	100					<u>l</u>					
<u>6-16</u>	2.5Y 4/2	100					<u>clay</u>					
¹ Type: C= C	Concentration, D=Depletio	n, RM=Reduc	ed Matr	ix, CS=Covered or	Coated Sand G	rains. ² Locati	ion: PL=Por	e Lining, M=Matri	х			
Hydric Soi	I Indicators: (Applicable to	o all LRRs, un	less oth	nerwise noted.)			Indic	ators for Proble	matic Hydr	ic Soils [:]	3:	
Histor	sol (A1)			Sandy Gleyed M	atrix (S4)			1 cm Muck (A9) (LRR I, J)			
Histic	Epipedon (A2)			Sandy Redox (S	5)			Coast Prairie R	edox (A16)	(LRR F	, G , H)	
Black	Histic (A3)			Stripped Matrix (S6)			Dark Surface (67) (LRR G)		
Hydro	ogen Sulfide (A4)			Loamy Mucky M	neral (F1)			High Plains De	pressions (F	F16)		
Strati	fied Layers (A5) (LRR F)			Loamy Gleyed M	latrix (F2)			(LRR H outs	ide of MLR	A 72 & 7	73)	
□ 1 cm	Muck (A9) (LRR F, G, H)			Depleted Matrix	(F3)			Reduced Vertic	; (F18)			
Deple	eted Below Dark Surface (A11)		Redox Dark Surf	ace (F6)			Red Parent Ma	terial (TF2)			
Thick	Dark Surface (A12)			Depleted Dark S	urface (F7)			Very Shallow D	ark Surface	e (TF 12))	
Sand	y Mucky Mineral (S1)			Redox Depression	ons (F8)			Other (Explain	in Remarks)		
□ 2.5 C	M Mucky Peat or Peat (S2	2)(LRR G, H)		High Plains Depr	essions (F16)		³ Indic	ators of hydroph	/tic vegetati	on and v	vetland	
□ 5 cm	Mucky Peat or Peat (S3) ((LRR F)		(MLRA 72 & 73	of LRR H)		probl	ematic.	sent, unese	Sustain		
Restrictive	Layer (if present):											
Туре:												
Depth (Inch	ies):						Hydr	ic Soils Present	? Yes		No	\boxtimes
Remarks:												
HYDROL	OGY											
Wetland Hy	ydrology Indicators:											
Primary Ind	licators (minimum of one r	equired; check	c all that	t apply)			Secon	dary Indicators (2	or more red	quired)		
Surfa	ace Water (A1)			Salt Crust (B11)				Surface Soil Crac	ks (B6)			
☐ High	Water Table (A2)			Aquatic Inverteb	rates (B13)			Sparsely Vegetate	ed Concave	Surface	(B8)	
Satu	ration (A3)			Hydrogen Sulfide	∋ Odor (C1)			Drainage Patterns	(B10)			
			_				_					

Wetla	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one re	equired	; check	all that	t apply)		Seco	ondary Indicators (2	or more	required))	
	Surface Water (A1)					Salt Crust (B11)			Surface Soil Crack	<s (b6)<="" td=""><td></td><td></td><td></td></s>			
	High Water Table (A2))				Aquatic Invertebrates (B13)			Sparsely Vegetate	d Conca	ve Surfa	ce (B8)	
	Saturation (A3)					Hydrogen Sulfide Odor (C1)			Drainage Patterns	(B10)			
	Water Marks (B1)					Dry Season Water Table (C2)			Oxidized Rhizosph	neres alo	ng Living	j Roots ((C3)
	Sediment Deposits (B	2)				Oxidized Rhizospheres along Living Roo	ots (C3)		(where tilled)				
	Drift Deposits (B3)					(where not tilled)			Crayfish Burrows ((C8)			
	Algal Mat or Crust (B4)				Presence of Reduced Iron (C4)			Saturation Visible	on Aeria	l Imagery	(C9)	
	Iron Deposits (B5)					Thin Muck Surface (C7)			Geomorphic Positi	ion (D2)			
	Inundation Visible on A	Aerial Ima	agery (E	37)		Other (Explain in Remarks)			FAC-Neutral Test	(D5)			
	Water-Stained Leav	ves (B9))						Frost-Heave Humr	mocks (E	07) (LRR	F)	
Field	Observations:												
Surfa	ace Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
Satur (inclu	ation Present? des capillary fringe)	Yes		No		Depth (inches):	Wetland	d Hyd	Irology Present?	Yes		No	\boxtimes
Desc	ribe Recorded Data (st	ream gau	lge, mo	nitoring	, well, a	aerial photos, previous inspections), if avail	lable:						
Rem	arks:												
1													

WETLAND DET		TION DAT	A FORM	 Great Plains Region
Project Site: <u>Stanley Municipal Airport</u>			City/Cou	nty: <u>Stanley /</u> Mountrail Sampling Date: <u>9/24/2020</u>
Applicant/Owner: Mead & Hunt				State: <u>ND</u> Sampling Point: <u>11</u>
Investigator(s): <u>GWM & DEV</u>			Section,	Township, Range: <u>29-156-91</u>
Landform (hillslope, terrace, etc.): <u>depression</u>		Local	l relief (conca	we, convex, none): <u>Concave</u> Slope (%): <u>1</u>
Subregion (LRR): <u>F</u> Lat: <u>48.3024</u>	<u>414</u>		Long: <u>-10</u>	02.411615 Datum: <u>NAD 83</u>
Soil Map Unit Name: <u>C132B Williams-Zahl loams, 3-</u>	6% slopes			NWI classification: <u>na</u>
Are climatic / hydrologic conditions on the site typical for	this time of y	rear? Yes	🗆 No 🛛	If no, explain in Remarks.)
Are Vegetation D, Soil D, or Hydrology	□, significa	antly disturbed	? Are "N	lormal Circumstances" present? Yes 🛛 No 🗌
Are Vegetation \Box , Soil \Box , or Hydrology	□, naturall	y problematic?	(If nee	eded, explain any answers in Remarks.)
			laastiswa	
Hydrophytic Vegetation Present?			iocations,	transects, important reatures, etc.
Hydric Soil Present?	Ves 🕅			
Wetland Hydrology Present?	Ves 🕅			
			is the Samp	ling Area within a wetland? Yes 🖂 No 🗌
Remarks:	o dolinostio			
Natural potnole wetland. Dry conditions at time of th	le defineation	n.		
VEGETATION – Use scientific names of plants	5			
Tree Stratum (Plot Size:)	Absolute	Dominant	Indicator	Dominance Test Worksheet:
1	<u>% Cover</u>	Species?	Status	Number of Densis and Onesis
2.				That Are OBL, FACW, or FAC: <u>1</u> (A)
3.				Total Number of Dominant
4.				Species Across All Strata: <u>1</u> (B)
		= Total Cover		Percent of Dominant Species
Sapling/Shrub Stratum (Plot Size:)				That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1			F	Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3				OBL species x1 =
4				FACW species x2 =
5				FAC species x3 =
		= Total Cover		FACU species x4 =
Herb Stratum (Plot Size: 5')				UPL species x5 =
1 Phalaris arundinacea	90	ves	FACW	Column Totolo: (A) (B)
2 Rumer crispus	10	<u>100</u>	FAC	Prevalence Index = B/A =
3	10	<u></u>	<u></u>	Hydrophytic Vegetation Indicators:
4.				1 – Rapid Test for Hydrophytic Vegetation
5.				x 2 - Dominance Test is >50%
6.				\sim 2. Drawalance index is <2.01
7.				3 – Prevalence index is \$3.0°
8				 4 - Morphological Adaptations ' (Provide supporting data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10				¹ Indicators of hydric soil and wetland hydrology must be present
	<u>100</u>	= Total Cover		unless disturbed or problematic.
Woody Vine Stratum (Plot Size:)			F	
1				
2				
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	-			Hydrophytic Vegetation Present? Yes 🛛 No 🗌
Remarks:				

Sampling Point: 11

Profile Description: (Descri	be to the	depth r	needed	to doc	ument the in	dicator or	confirm the	absence c	of indicato	ors.)	
Depth Ma	trix				R	edox Feat	tures				
(inches) Color (moist)	%	Co	lor (Mo	ist)	%	Type ¹	Loc ²	1	Texture	Remarks
0-8 10YR 2/1		94	7	5YR 5/	6	6	c	la		1	
8-16 2.5Y 4/2		96	7	5YR 5/	4	4	c	m		- cl	
<u>0 10</u> <u>2.01 1/2</u>		<u></u>	<u></u>	01110/	<u>-</u>	÷	-	<u></u>		<u>.</u>	
							·		_		
									_		
	-				_				-		
	_								_		
	-						<u> </u>		_		
	_								_		
¹ Type: C= Concentration, D=	Depletio	n, RM=l	Reduce	ed Matr	ix, CS=Cove	ered or Co	ated Sand G	irains. ² L	ocation: F	PL=Por	e Lining, M=Matrix
Hydric Soil Indicators: (App	olicable t	o all LRI	Rs, unl	ess oth	erwise noted	d.)				Indic	ators for Problematic Hydric Soils ³ :
Histosol (A1)					Sandy Gle	yed Matri	x (S4)				1 cm Muck (A9) (LRR I, J)
Histic Epipedon (A2)					Sandy Rec	dox (S5)					Coast Prairie Redox (A16) (LRR F, G, H)
Black Histic (A3)					Stripped M	latrix (S6)					Dark Surface (S7) (LRR G)
Hydrogen Sulfide (A4)					Loamy Mu	cky Miner	al (F1)				High Plains Depressions (F16)
Stratified Layers (A5) (LRR F)				Loamy Gle	eyed Matri	ix (F2)				(LRR H outside of MLRA 72 & 73)
1 cm Muck (A9) (LRR	F. G. H)				Depleted N	- ∕latrix (F3))				Reduced Vertic (F18)
Depleted Below Dark S	Surface (A11)			Redox Dar	k Surface	, e (F6)				Red Parent Material (TE2)
Thick Dark Surface (A1	12)	,)ark Surfa	(F7)				Very Shallow Dark Surface (TE 12)
Sandy Mucky Mineral (S1)				Redox Der	oressions	(F8)				Other (Explain in Remarks)
2.5 CM Mucky Peat or	Peat (S2		с н)		High Plains	s Denress	(10) sions (F16)			³ India	cators of hydrophytic vegetation and wetland
5 cm Mucky Peat or Pe	r car (02)		0, 11)		(MI PA 7	2 & 73 of				hydro	blogy must be present, unless disturbed or
Restrictive Laver (if presen	t).					2 0 7 5 6				probl	
	.,.										
Туре:											
Deptn (Inches):										Hydr	ric Soils Present? Yes 🛛 No 🗌
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicate	ors:										
Primary Indicators (minimum	of one r	eauired:	check	all that	applv)					Secon	dary Indicators (2 or more required)
Surface Water (A1)					Salt Crust	(B11)					Surface Soil Cracks (B6)
High Water Table (A2)						(ertebrate	e (B13)				Sparsely Vegetated Concave Surface (B8)
$\square \text{Figure track of } (A2)$					Ludrogon	Sulfido O	dor(C1)				Drainage Betterne (B10)
											Drainage Fatterns (DTO)
	2)				Dry Seaso				(00)		Character (11-1)
	2)					Izosphe	res along Liv	ing Roots	(C3)	_	(where tilled)
Drift Deposits (B3)					(where no	t tilled)					Crayfish Burrows (C8)
Algal Mat or Crust (B4)				Presence	of Reduce	ed Iron (C4)				Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)					Thin Muck	Surface ((C7)			\boxtimes (Geomorphic Position (D2)
Inundation Visible on A	Aerial Im	agery (E	37)		Other (Exp	lain in Re	emarks)				FAC-Neutral Test (D5)
Water-Stained Leaver	/es (B9))									Frost-Heave Hummocks (D7) (LRR F)
Field Observations:							-				
Surface Water Present?	Yes		No	\boxtimes	Depth	(inches):					
Water Table Present?	Yes		No	\bowtie	Depth	(inches):					
Saturation Present?	-	_				/-			14/		
(includes capillary fringe)	Yes		No		Depth	(Inches):			wetland	a Hydro	
Describe Recorded Data (st	ream gau	uge, mo	nitoring	g well, a	erial photos	, previous	inspections)), if availal	ble:		
Remarks:											
Appears isolated as no surfa	ce conne	ection to	anoth	er aqua	tic resource	or draina	ge was noted	l.			

WETLAND DET		TION DAT	A FORM	– Great Plains Region
Project Site: <u>Stanley Municipal Airport</u>			City/Cou	unty: <u>Stanley /</u> Sampling Date: <u>9/24/2020</u>
Applicant/Owner: Mead & Hunt				State: <u>ND</u> Sampling Point: <u>12</u>
Investigator(s): <u>GWM & DEV</u>			Section,	Township, Range: <u>29-156-91</u>
Landform (hillslope, terrace, etc.): <u>slope</u>		Loca	I relief (conca	ave, convex, none): <u>convex</u> Slope (%): <u>2</u>
Subregion (LRR): F Lat: 48.3023	<u>392</u>		Long: <u>-1(</u>	02.411502 Datum: <u>NAD 83</u>
Soil Map Unit Name: <u>C132B Williams-Zahl loams, 3-6</u>	6% slopes			NWI classification: <u>na</u>
Are climatic / hydrologic conditions on the site typical for	this time of y	vear? Yes	🗆 No 🛛	☑ (If no, explain in Remarks.)
Are Vegetation D, Soil D, or Hydrology	□, significa	antly disturbed	? Are "N	Normal Circumstances" present? Yes 🛛 No 🗌
Are Vegetation \Box , Soil \Box , or Hydrology	□, naturall	y problematic?	? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF EINDINGS Attach site man ab	owing con	nling noint	locations	transasta important fasturas ata
Hydronhytic Vegetation Present?			iocations,	transects, important reatures, etc.
Hydric Soil Present?	Yes 🗆	No 🖾		
Wetland Hydrology Present?	Yes 🗆	No 🕅	la tha Camp	ling Area within a Watland? Yao
Pomarka:			is the Samp	ing area within a wetland? Fes 🗋 No 🖂
Inland comparison point Dry conditions at time of t	he delineati	on		
opiana companson point. Dry conditions at time of		011.		
VEGETATION – Use scientific names of plants	5			
Tree Stratum (Plot Size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1.	<u>70 COVEL</u>	<u>opecies:</u>	Olalus	Number of Dominant Species
2.				That Are OBL, FACW, or FAC: $\underline{0}$ (A)
3				Total Number of Dominant
4.				Species Across All Strata: <u>1</u> (B)
		= Total Cover	r	Percent of Dominant Species
Sapling/Shrub Stratum (Plot Size:)				That Are OBL, FACW, or FAC: 0 (A/B)
1				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3				OBL species x1 =
4				FACW species x2 =
5				FAC species x3 =
		= Total Cover	r	FACU species x4 =
<u>Herb Stratum (</u> Plot Size: <u>5'</u>)				UPL species x5 =
1. Poa pratensis	100	ves	FACU	Column Totale: (A) (B)
2	<u></u>	<u>,</u>		Prevalence Index = B/A =
3.				Hydrophytic Vegetation Indicators:
4.				1 – Rapid Test for Hydrophytic Vegetation
5.				2 - Dominance Test is >50%
6.				3 Provolopico Index is $\leq 3.0^{1}$
7				
8				 4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10				¹ Indicators of hydric soil and wetland hydrology must be present.
	<u>100</u>	= Total Cover	r	unless disturbed or problematic.
Woody Vine Stratum (Plot Size:)			ľ	
1				
2				
		= Total Cover	r	
% Bare Ground in Herb Stratum 0				Hydrophytic Vegetation Present? Yes 🗌 No 🖂
Remarks:				

SOIL										Sampling Point: 12
Profil	e Descr	iption: (Describe to	the depth need	ed to doc	ument the i	ndicator	or confirm the a	bsence of in	dicators.)	
De	epth	Matrix			F	tedox F	eatures		_	
(inche	es)	Color (moist)	% (Color (Mo	vist)	%	Type ¹	Loc ²	Textu	Ire Remarks
<u>0</u>	-7	<u>10YR 2/2</u>	<u>100</u>		_				<u>I</u>	<u> </u>
<u>7-</u>	<u>-16</u>	<u>2.5Y 4/2</u>	<u>100</u>		_				<u>cla</u>	<u>αγ</u>
					_					
					_					
					_				_	
					_					
					_					
					_					
¹ Type	: C= Co	ncentration, D=Dep	letion, RM=Redu	uced Matr	ix, CS=Cov	ered or	Coated Sand Gr	ains. ² Loca	tion: PL=P	Pore Lining, M=Matrix
Hydri	c Soil Ir	idicators: (Applicat	ole to all LRRs, u	inless oth	erwise note	.)			Ind	dicators for Problematic Hydric Soils ³ :
	Histoso	(A1)			Sandy Glo	eyed Ma	atrix (S4)			1 cm Muck (A9) (LRR I, J)
	Histic E	pipedon (A2)			Sandy Re	dox (S5	i)			Coast Prairie Redox (A16) (LRR F, G, H)
	Black H	istic (A3)			Stripped M	√atrix (S	6)			Dark Surface (S7) (LRR G)
	Hydroge	en Sulfide (A4)			Loamy M	ucky Mir	neral (F1)			High Plains Depressions (F16)
	Stratifie	d Layers (A5) (LRR	. F)		Loamy GI	eyed Ma	atrix (F2)			(LRR H outside of MLRA 72 & 73)
	1 cm M	uck (A9) (LRR F, G ,	, H)		Depleted	Matrix (I	F3)			Reduced Vertic (F18)
	Deplete	d Below Dark Surfa	ıce (A11)		Redox Da	ırk Surfa	ace (F6)			Red Parent Material (TF2)
	Thick D	ark Surface (A12)			Depleted	Dark Su	ırface (F7)			Very Shallow Dark Surface (TF 12)
	Sandy M	/lucky Mineral (S1)			Redox De	pression	ns (F8)			Other (Explain in Remarks)
	2.5 CM	Mucky Peat or Peat	t (S2)(LRR G, H))	High Plair	is Depre	essions (F16)		³ Inc	dicators of hydrophytic vegetation and wetland
	5 cm M	ucky Peat or Peat (S	33) (LRR F)		(MLRA7	72 & 73	of LRR H)		pro	oblematic.
Restr	ictive L	ayer (if present):								
Type:										
Depth	(Inches):							Hy	/dric Soils Present? Yes 🗌 No 🛛
Rema	irks <i>:</i>									
нурі		Υ Υ								
Wetla	nd Hyd	rology Indicators:								
Prima	ry Indica	ators (minimum of o	ne required; che	ck all that	t apply)				Seco	ondary Indicators (2 or more required)
	Surface	Water (A1)			Salt Crust	(B11)				Surface Soil Cracks (B6)
	Hiah W	ater Table (A2)			Aquatic Ir	vertebra	ates (B13)			Sparsely Vegetated Concave Surface (B8)
	Saturat	ion (A3)			Hydrogen	Sulfide	Odor (C1)			Drainage Patterns (B10)
	Water I	Marks (B1)			Drv Seas	on Wate	r Table (C2)			Oxidized Rhizospheres along Living Roots (C3)
		(D)			2.) cour			D ()01		(

- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

Frost-Heave Hummocks	(D7)	(L
I Tool Thouse Thanhington	()	·-

□ Water-Stained Leav	/es (B9)						Frost-Heave Hum	mocks (E)7) (LRR	F)
Field Observations:										
Surface Water Present?	Yes		No	\boxtimes	Depth (inches):					
Water Table Present?	Yes		No	\boxtimes	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetland Hy	drology Present?	Yes		No
Describe Recorded Data (st	ream gau	ige, mo	nitoring	well, a	erial photos, previous inspections), if availa	able:				
Remarks:										

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

Presence of Reduced Iron (C4)

Drift Deposits (B3)

Iron Deposits (B5)

Algal Mat or Crust (B4)

Inundation Visible on Aerial Imagery (B7)

 \boxtimes

Project Site: Stantery Municipal Arrort City/County: Stanter/Municipal Arrort Stanter Municipal Arrort Applicant/Commer: Maintail State: Maintail State: Maintail Sampling Point: 13 Investigator(s): gitted: Local relief (concave, convex, none): Concave State: Maintail Maintail Maintail Maintail Maintail State: Maintail State: Maintail State: Maintail Maintail Maintail State: Maintail Main
Applicant/Owner: Maad & Hunt State: ND Sampling Point: 13 Investigator(s): QMMA & DEV Section, Township, Range: 22:05:65:1 Landform (hills) per trace, etc.): ditch Locat relif (concaux, convex, none): Concaux Subregion (LRR): E Lat: 42:828473 Long: 102:407618 Datum:: NAD & B3 Sold May Unit Name: C200A Appain smart ytam, 24% slopes No Image: Concaux, convex, none): Concaux Concaux No Image: Concaux, convex, none): Concaux No Image: Convex, convex, none): Convex, convex, none): Concaux No Image: Convex, convex, none): Convex, convex, none: Convex,
Investigator(s): GWM & DEV Section, Township, Range: 29156-91 Landform (hillslope, torrace, etc.): dich Local relife (concave, convex, none): Stope (%): 1 Subregion (LINK): E Latt & 4209473 Long: -102/407618 Donum: MADB at Soil Map Unit Name: C300A Appam sandy loam. 26% slopes No (If no, explain in Remarks.) Are Vegetation No (If no, explain in Remarks.) Are vegetation Soil or Hydrology naturally problematic? (If no, explain in Remarks.) No Image: -102/407618 No Image: -102/407618 No Image: -102/407613 No
Landform (hillslöpe, terrace, etc.): didn Local relief (concave, convex, none): Concave Stope (%): 1 Subregion (LRR): E Lat: 45299473 Loc:::::02407618 Datum: NAD 63 Soll Map Unit Name: 2000 Appoint Stapper sandy Jopans andy Jopans and Jopans NAD 63 Are vegetation
Subregion (LRR): E Let: 42.39273 Long: -102.407618 Datum: NAD-83 Soll Map Unt Name: C2000A Acpains and Views -2.67% signed: MVI classification: ma MVI classification: ma Are climater (Nytoologic conditions on the site typical for this time of year? Yes No Q (If no, explain in Remarks.) Are Vegetation Soll or Hydrology isignificantly disturbed? Are "Normal Circumstances" present? Yes No No SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrolyphic Vegetation Present? Yes No Image: No
Soil Map Unit Name: C2000A Appam samely Loam, 20% slopes NM C [destification: na Are dimatic / hydrologic conditions on the site typical for this time of year? Yes N N C [ff (nc, explain in Remarks.] N N C Are Vegetation Soil , or Hydrology , instinctantly disturbed? Are Normal Circumstance? present? N N C N N C Hydrophytic Vegetation Present? Yes N N C (ff needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes N N C Hydrophytic Vegetation Present? Yes N N C is the Sampling Area within a Wetland? Yes N O C Wetland along road ditch. Dry conditions at time of the delineation. Indicator Indicator Number of Dominant Species 1 (A) 1.
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No No (If no, explain in Remarks.) Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes No SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No
Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are Vegetation Soil or Hydrology naturally problematic? (if needed, explain any answers in Remarks.) SUBMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophylic Vegetation Present? Yes No
Are Vegetation
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Image: Colspan="2">Image: Colspan="2" Image: Colspan="2">Image: Colspan="2" Image: Colspan=""2" Image: Colspan="2" Image: C
Contraction of the properties of the prop
Hydric Soil Present? Yes ∑ No Is the Sampling Area within a Wetland? Yes ∑ No □ Remarks: Wetland along road ditch. Dry conditions at time of the delineation. Is the Sampling Area within a Wetland? Yes ∑ No □ Remarks: Wetland along road ditch. Dry conditions at time of the delineation. Dominant Indicator Dominant No □ 1.
Wetland Hydrology Present? Yes No Is the Sampling Area within a Wetland? Yes No Remarks: Wetland along road ditch. Dry conditions at time of the delineation. VEGETATION - Use scientific names of plants Tree Stratum (Plot Size:) Absolute Dominant Indicator 1.
In the case of plants VEGETATION - Use scientific names of plants Image: Index case of plants Indicator Dominant Indicator 1.
Wetland along road ditch. Dry conditions at time of the delineation. VEGETATION – Use scientific names of plants Tree Stratum (Plot Size: _) Absolute % Cover Dominant Species? Status Dominant Prevalence Index worksheet: 1.
VEGETATION – Use scientific names of plants Tree Stratum (Plot Size:) Absolute % Cover Dominant Species? Indicator Status Dominant Species 1 (A) 1.
VEGETATION – Use scientific names of plants Tree Stratum (Plot Size:) Absolute % Cover % Decies? Dominant % Indicator % Species? Dominant % Species? Dominant % Pocies? 1 (A) 1.
VEGETATION – Use scientific names of plants Tree Stratum (Plot Size:) Absolute % Cover Dominant Species? Indicator Status Dominant Status Dominant Species? 1 (A) 2.
Tree Stratum (Plot Size:) Absolute % Cover Dominant Species? Indicator Status Dominance Test Worksheet: 1.
1.
2.
3.
4.
Sapling/Shrub Stratum (Plot Size:) = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B) 1.
Sapling/Shrub Stratum (Plot Size:) Inat Are OBL, FACW, or FAC: Inat Are OBL, FACW, or FAC: 1. Prevalence Index worksheet: 2. OBL species x1 = 3.
1.
2.
3.
4.
3.
Herb Stratum (Plot Size: 5') Image: Stratum (Plot Size: 5') UPL species x4 = 1. Phalaris arundinacea 100 yes FACW Column Totals: (A) (B) 2 Prevalence Index = B/A = (B) 3 Hydrophytic Vegetation Indicators: 1 – Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot Size: 5') UPL species x5 = 1. Phalaris arundinacea 100 yes FACW Column Totals: (A) (B) 2.
1. Phalaris arundinacea 100 yes FACW Column Totals: (A) (B) 2.
2. Prevalence Index = B/A = 3.
3. Hydrophytic Vegetation Indicators: 4. 1 – Rapid Test for Hydrophytic Vegetation
4. 1 – Rapid Test for Hydrophytic Vegetation
5 X 2 - Dominance Test is >50%
0 3 – Prevalence Index is ≤3.0 ¹
8. 4 - Morphological Adaptations ¹ (Provide supporting data in
9. Problematic Hydrophytic Vegetation ¹ (Evplain)
10.
100 = Total Cover unless disturbed or problematic.
Woody Vine Stratum (Plot Size:)
1
2
= Total Cover
Remarks:

Sampling Point: 13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth Matrix Redox Features									
(inches) Color (moist) % Color (Moist) % Type ¹ Loc ² Texture Remark	s								
0-8 10YR 2/1 92 7.5YR 5/6 8 c pl l									
<u>8-16 2.5Y 4/2 96 7.5YR 5/4 6 c m cl</u>									
¹ Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric	Soils³:								
Histosol (A1) Sandy Gleyed Matrix (S4) 1 cm Muck (A9) (LRR I, J)									
Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (L	RR F, G, H)								
Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G)									
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) High Plains Depressions (F16)	S)								
Stratified Layers (A5) (LRR F) Loamy Gleyed Matrix (F2) (LRR H outside of MLRA *	72 & 73)								
Image: Constraint of the second se									
Depleted Below Dark Surface (A11)									
Thick Dark Surface (A12) Depleted Dark Surface (F7) Very Shallow Dark Surface (F 12)								
Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks)									
2.5 CM Mucky Peat or Peat (S2)(LRR G, H) High Plains Depressions (F16)	and wetland								
5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Insufacional problematic.	Istui ded Ol								
Restrictive Layer (if present):									
Туре:									
Depth (Inches): Hydric Soils Present? Yes	🛛 No 🗆								
Remarks:									
Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more requi	red)								
Surface Water (A1)	,								
High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Si	urface (B8)								
Saturation (A3)									
Water Marks (B1) Dry Season Water Table (C2) Oxidized Rhizospheres along Li	ving Roots (C3)								
\square Sediment Deposits (B2) \square Oxidized Rhizospheres along Living Roots (C3) (where tilled)	5								
□ Drift Deposits (B3) (where not tilled) □ Craviish Burrows (C8)									
Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Ima	aerv (C9)								
□ Iron Deposits (B5) □ Thin Muck Surface (C7) ⊠ Geomorphic Position (D2)	, , (,								
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) K FAC-Neutral Test (D5)									
□ Water-Stained Leaves (B9)	RR F)								
Field Observations:	,								

Field Observations:											
Surface Water Present?	Yes		No	\bowtie	Depth (inches):						
Water Table Present?	Yes		No	\boxtimes	Depth (inches):						
Saturation Present? (includes capillary fringe)	Yes		No		Depth (inches):	Wetland Hydrology Present?	Yes	\boxtimes	No		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
Remarks:											

WETLAND DET			A FORM	- Great Plains Re	egion
Project Site: <u>Stanley Municipal Airport</u>			City/Cour	ty: <u>Stanley /</u> Mountrail	Sampling Date: <u>9/24/2020</u>
Applicant/Owner: Mead & Hunt				State: <u>ND</u>	Sampling Point: <u>14</u>
Investigator(s): <u>GWM & DEV</u>			Section,	ownship, Range: <u>29-1</u>	<u>56-91</u>
Landform (hillslope, terrace, etc.): <u>slope</u>		Local	relief (conca	e, convex, none): <u>conv</u>	<u>ex</u> Slope (%): <u>2</u>
Subregion (LRR): <u>F</u> Lat: <u>48.298</u>	<u>491</u>		Long: <u>-10</u>	2.407534	Datum: <u>NAD 83</u>
Soil Map Unit Name: <u>C800A Appam sandy loam, 2-6</u>	% slopes			NWI	l classification: <u>na</u>
Are climatic / hydrologic conditions on the site typical for	r this time of y	ear? Yes	🗆 No 🗵	(If no, explain in Rema	arks.)
Are Vegetation D, Soil D, or Hydrology	□, significa	antly disturbed?	? Are "N	ormal Circumstances" pres	sent? Yes 🖾 No 🗌
Are Vegetation \Box , Soil \Box , or Hydrology	□, naturall	y problematic?	(If nee	led, explain any answers i	in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	nowing sam	pling point	locations, t	ransects, important fe	eatures, etc.
Hydrophytic Vegetation Present?	Yes 📋	No 🖂			
Hydric Soil Present?	Yes 📋	No 🖂			
Wetland Hydrology Present?	Yes 🗋	No 🛛	Is the Sampl	ng Area within a Wetland	d? Yes 🗌 No 🛛
Remarks:					
Upland comparison point. Dry conditions at time of	the delineation	on.			
VECETATION Lies acientific names of plant					
Tree Stratum (Plot Size:	Absolute	Dominant	Indicator	Dominance Test Works	neet.
	<u>% Cover</u>	Species?	<u>Status</u>	Dominance rest works	
2				Number of Dominant Spec That Are OBL_FACW_or	cies FAC [.] <u>0</u> (A)
2				T	
3				Total Number of Dominan Species Across All Strata:	<u>t</u> (В)
т		= Total Cover	_	'	-1
Sapling/Shrub Stratum (Plot Size:)				That Are OBL, FACW, or	FAC: 0 (A/B)
, 1.				Prevalence Index works	heet:
2.				Total % Cover of:	Multiply by:
3.				OBL species	x1 =
4.				FACW species	x2 =
5				FAC species	x3 =
		= Total Cover		FACU species	x4 =
Herb Stratum (Plot Size: 5')				UPL species	x5 =
1 Bromus inermis	90	VAS	FACU		(A) (B)
2 Hordoum jubatum	<u>30</u> 10	<u>yes</u>	EACW/	Column Totals:	$\underline{\qquad} (A) = \underline{\qquad} (B)$
	10	<u>110</u>	TACIN		Indicators:
3				1 - Ranid Tes	t for Hydronhytic Vegetation
5				2 - Dominance	- Test is >50%
6.				2 Bonnanoo	
7.				3 – Prevalence	e Index is ≤3.01
8				4 - Morphologi	ical Adaptations ¹ (Provide supporting data in or on a separate speet)
9.				Problematic H	Vdronhytic Vegetation ¹ (Explain)
10.				Indicators of bydric soil a	nd wotland bydrology must be present
· · · · · · · · · · · · · · · · · · ·	100	= Total Cover		unless disturbed or proble	ematic.
Woody Vine Stratum (Plot Size:)	_		F		
1					
2					
		= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>	_			Hydrophytic Vegetation	Present? Yes 🗌 No 🖂
Remarks:				<u> </u>	
·					

SOIL									Sampling Point: 14			
Profil	e Description: (Describe to	the depth neede	d to doc	ument the in	dicator or o	confirm the abse	nce of indi	icators.)	·			
De	epth Matrix			Re	edox Featu	ires						
(inche	es) Color (moist)	% C	olor (Mo	ist)	%	Type ¹	Loc ²	Textur	Remarks			
0	-7 <u>10YR 2/2</u>	100						<u> </u>				
7-	<u>10YR 3/2</u>	<u>100</u>						<u>I</u>				
_												
_												
_												
¹ Type	: C= Concentration, D=Dep	letion, RM=Reduc	ed Matr	ix, CS=Cove	red or Coa	ted Sand Grain	s. ² Locatio	on: PL=Po	ore Lining, M=Matrix			
Hydri	c Soil Indicators: (Applicat	ole to all LRRs, ur	nless oth	erwise noted	.)			Ind	icators for Problematic Hydric Soils ³ :			
	Histosol (A1)			Sandy Gle	ed Matrix	(S4)			1 cm Muck (A9) (LRR I, J)			
	Histic Epipedon (A2)			Sandy Red	ox (S5)				Coast Prairie Redox (A16) (LRR F, G, H)			
	Black Histic (A3)			Stripped M	atrix (S6)				Dark Surface (S7) (LRR G)			
	Hydrogen Sulfide (A4)			Loamy Mu	cky Minera	l (F1)			High Plains Depressions (F16)			
	Stratified Layers (A5) (LRR	tified Layers (A5) (LRR F)				(F2)			(LRR H outside of MLRA 72 & 73)			
	1 cm Muck (A9) (LRR F, G	, H)		Depleted M	latrix (F3)				Reduced Vertic (F18)			
	Depleted Below Dark Surfa	ce (A11)		Redox Dar	k Surface	(F6)			Red Parent Material (TF2)			
	Thick Dark Surface (A12)			Depleted D	ark Surfac	e (F7)			Very Shallow Dark Surface (TF 12)			
	Sandy Mucky Mineral (S1)			Redox Depressions (F8)					Other (Explain in Remarks)			
	2.5 CM Mucky Peat or Peat	t (S2)(LRR G, H)	High Plains Depressions (F16)					3lnc hvd	licators of hydrophytic vegetation and wetland			
	5 cm Mucky Peat or Peat (S	63) (LRR F)		(MLRA 72 & 73 of LRR H)					problematic.			
Restr	ictive Layer (if present):											
Type:												
Depth	(Inches):							Нус	dric Soils Present? Yes 🗌 No 🛛			
Rema	rks <i>:</i>											
HYD	ROLOGY											
Wetla	nd Hydrology Indicators:											
Prima	ry Indicators (minimum of o	ne required; chec	k all that	apply)				Seco	ndary Indicators (2 or more required)			
	Surface Water (A1)	•		Salt Crust	B11)				Surface Soil Cracks (B6)			
	High Water Table (A2)			Aquatic Inv	ertebrates	(B13)			Sparsely Vegetated Concave Surface (B8)			
	Saturation (A3)			Hydrogen	Sulfide Od	or (C1)			Drainage Patterns (B10)			
	Water Marks (B1)			Dry Seaso	n Water Ta	able (C2)			Oxidized Rhizospheres along Living Roots (C3)			
	Sediment Deposits (B2)	its (B2) Oxidized Rhizospheres along Living Roots (C3)						(where tilled)				

_		
	(where	tilled)

- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- RF)

	Frost-Heave Hummocks (D7) (LRF
Depth (inches):	

Water Table Present?	Yes		No	\boxtimes	Depth (inches):						
Saturation Present? (includes capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetland Hydrology Present?	Yes		No		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

Presence of Reduced Iron (C4)

 \boxtimes

Remarks:

Drift Deposits (B3)

Iron Deposits (B5)

Field Observations: Surface Water Present?

Algal Mat or Crust (B4)

Inundation Visible on Aerial Imagery (B7)

Yes

No

Water-Stained Leaves (B9)

 \boxtimes

WETLAND DET		TION DAT	A FORM	 Great Plains Region
Project Site: <u>Stanley Municipal Airport</u>			City/Cour	nty: <u>Stanley /</u> Mountrail Sampling Date: <u>9/24/2020</u>
Applicant/Owner: Mead & Hunt				State: <u>ND</u> Sampling Point: <u>30</u>
Investigator(s): <u>GWM & DEV</u>			Section,	Township, Range: <u>29-156-91</u>
Landform (hillslope, terrace, etc.): <u>drain</u>		Local	l relief (conca	ve, convex, none): <u>concave</u> Slope (%): <u>1</u>
Subregion (LRR): F Lat: 48.301	<u>539</u>		Long: <u>-10</u>	<u>2.403363</u> Datum: <u>NAD 83</u>
Soil Map Unit Name: <u>C800A Appam sandy loam, 2-6</u>	% slopes			NWI classification: <u>na</u>
Are climatic / hydrologic conditions on the site typical for	this time of y	ear? Yes	🗆 No 🗵	I (If no, explain in Remarks.)
Are Vegetation D, Soil D, or Hydrology	□, significa	antly disturbed	? Are "N	lormal Circumstances" present? Yes 🛛 No 🗌
Are Vegetation \Box , Soil \Box , or Hydrology	□, naturall	y problematic?	(If nee	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	nowing sam	npling point	locations,	transects, important features, etc.
Hydrophytic vegetation Present?	Yes □			
Mational Hydrology Procent?	Yes 🗆			
	res 🔟		Is the Sampl	ing Area within a Wetland? Yes 🗋 No 🖾
Remarks:				
Constructed ephemeral drain. Dry conditions at time	e of the delin	eation.		
VEGETATION – Use scientific names of plants				
Tree Stratum (Plot Size:)	Absolute	Dominant	Indicator	Dominance Test Worksheet:
1	% Cover	Species?	Status	
2				Number of Dominant Species $\underline{0}$ (A) That Are OBL, FACW, or FAC:
3				Total Number of Dominant
4.				Species Across All Strata: <u>1</u> (B)
		= Total Cover		Percent of Dominant Species
Sapling/Shrub Stratum (Plot Size:)				That Are OBL, FACW, or FAC: 0 (A/B)
1			-	Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3				OBL species x1 =
4				FACW species x2 =
5				FAC species x3 =
		= Total Cover		FACU species x4 =
<u>Herb Stratum (</u> Plot Size: <u>5'</u>)				UPL species x5 =
1. Elvmus trachycaulus	100	ves	FACU	Column Totals: (A) (B)
2		<u>,</u>		Prevalence Index = B/A =
3.				Hydrophytic Vegetation Indicators:
4.				1 – Rapid Test for Hydrophytic Vegetation
5.				2 - Dominance Test is >50%
6.				2. Dravalance Index is <2.01
7				
8				 4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10				¹ Indicators of hydric soil and wetland hydrology must be present,
	<u>100</u>	= Total Cover		unless disturbed or problematic.
Woody Vine Stratum (Plot Size:)			F	
1				
2				
		= Total Cover		
% Bare Ground in Herb Stratum 0				Hydrophytic Vegetation Present? Yes 🗌 No 🛛
Remarks:			•	

SOIL								Sampling Point: 30				
Profile Des	cription: (Describe to t	he depth neede	ed to doc	ument the indicato	r or confirm the a	bsence of indic	ators.)					
Depth Matrix				Redox I	eatures							
(inches)	Color (moist)	% C	olor (Mo	pist) %	Type ¹	Loc ²	Texture	Remarks				
<u>0-5</u>	<u>10YR 2/2</u>	<u>100</u>					<u>l</u>					
<u>5-16</u>	<u>10YR 3/2</u>	<u>100</u>					<u>l</u>					
¹ Type: C= C	Concentration, D=Deple	tion, RM=Reduc	ced Matr	ix, CS=Covered or	Coated Sand G	rains. ² Locatio	n: PL=Por	re Lining, M=Matrix				
Hydric Soil	Indicators: (Applicable	e to all LRRs, ur	nless oth	erwise noted.)			India	cators for Problematic Hydric Soils ³ :				
Histos	sol (A1)			Sandy Gleyed M	atrix (S4)			1 cm Muck (A9) (LRR I, J)				
Histic Epipedon (A2)				Sandy Redox (S	5)			Coast Prairie Redox (A16) (LRR F, G, H)				
Black Histic (A3)				Stripped Matrix (S6)			Dark Surface (S7) (LRR G)				
☐ Hydrogen Sulfide (A4)				Loamy Mucky M	ineral (F1)			High Plains Depressions (F16)				
Stratified Layers (A5) (LRR F)			Loamy Gleyed M	latrix (F2)		_	(LRR H outside of MLRA 72 & 73)					
□ 1 cm	1 cm Muck (A9) (LRR F, G, H)			Depleted Matrix	(F3)			Reduced Vertic (F18)				
	eted Below Dark Surface	e (A11)		Redox Dark Surf	Dark Surface (F6)			Red Parent Material (TF2)				
	Dark Surface (A12)			Depleted Dark Surface (F7)				Very Shallow Dark Surface (TF 12)				
	y Mucky Mineral (S1)			Redox Depressions (F8)			⊔ ³ Indi	Other (Explain in Remarks) cators of hydrophytic vegetation and wetland				
	Mucky Pear of Pear (1) High Plains Depressions (F16)				hydrology must be present, unless disturbed or					
	laver (if present):)(LKK F)		(WILKA 12 & 13			prob	lematic.				
Turney	Layer (il present).											
Type: Donth (Inch												
Depth (Inch	es).						Hyd	ric Soils Present? Yes 🗋 No 🖂				
Remarks:												
HYDROLO	DGY											
Wetland Hy	/drology Indicators:											
Primary Indicators (minimum of one required; check all that apply)							Secon	idary Indicators (2 or more required)				
□ Surfa	ace Water (A1)			Salt Crust (B11)				Surface Soil Cracks (B6)				
High	Water Table (A2)			Aquatic Inverteb	rates (B13)			Sparsely Vegetated Concave Surface (B8)				
Satur	ration (A3)			Hydrogen Sulfide	e Odor (C1)			Drainage Patterns (B10)				
Water Marks (B1) Dry Season Water Table (C2)								Oxidized Rhizospheres along Living Roots (C3)				

Oxidized Rhizospheres along Living Roots (C3)

Saturation Present?	Voc	No	Dopth (inchos):	
(includes capillary fringe)	165	NU	Deptil (inches).	

No

No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

 \boxtimes

 \boxtimes

(where not tilled)

Thin Muck Surface (C7)

Depth (inches):

Depth (inches):

Other (Explain in Remarks)

Presence of Reduced Iron (C4)

Remarks:

Sediment Deposits (B2)

Algal Mat or Crust (B4)

Inundation Visible on Aerial Imagery (B7)

Yes

Yes

Water-Stained Leaves (B9)

Drift Deposits (B3)

Iron Deposits (B5)

Field Observations: Surface Water Present?

Water Table Present?

(where tilled)

Crayfish Burrows (C8)

FAC-Neutral Test (D5)

Geomorphic Position (D2)

Saturation Visible on Aerial Imagery (C9)

Frost-Heave Hummocks (D7) (LRR F)

Yes

No

 \boxtimes

 \boxtimes

Wetland Hydrology Present?

WETLAND DET	ERMINA	TION DAT		– Great Plains F	Region
Project Site: <u>Stanley Municipal Airport</u>			City/Coun	ty: <u>Stanley /</u> Mountrail	Sampling Date: <u>9/24/2020</u>
Applicant/Owner: <u>Mead & Hunt</u>				State: <u>N</u>	D Sampling Point: <u>32</u>
Investigator(s): <u>GWM & DEV</u>			Section, T	ownship, Range: <u>29</u>	9- <u>156-91</u>
Landform (hillslope, terrace, etc.): <u>drain</u>		Loca	l relief (concav	re, convex, none): <u>co</u>	oncave Slope (%): 2
Subregion (LRR): <u>F</u> Lat: <u>48.301</u>	1381		Long: <u>-102</u>	2.407183	Datum: <u>NAD 83</u>
Soil Map Unit Name: <u>C800A Appam sandy loam, 2-</u>	6% slopes			N	IWI classification: <u>na</u>
Are climatic / hydrologic conditions on the site typical for	or this time of	/ear? Yes	🗆 No 🖾	(If no, explain in Re	marks.)
Are Vegetation D, Soil D, or Hydrology	□, signific	antly disturbed	? Are "No	ormal Circumstances" p	oresent? Yes 🛛 No 🗌
Are Vegetation \Box , Soil \Box , or Hydrology	□, natural	ly problematic?	P (If need	ded, explain any answe	ers in Remarks.)
				_	
SUMMARY OF FINDINGS – Attach site map s	howing sar	npling point	locations, t	ransects, important	t features, etc.
Hydrophytic Vegetation Present?	Yes 📋	No 🖂			
Hydric Soil Present?	Yes 📋	No 🖂			
Wetland Hydrology Present?	Yes 🗋	No 🖂	Is the Sampli	ng Area within a Wetla	and? Yes 🗌 No 🖾
Remarks:					
Edge of inlet culvert of the Airport's storm water ren	moval system	n. Dry condition	ons at time of	the delineation.	
	-				
VEGETATION - Use scientific names of plant	S Absolute	Dominant	Indicator		
Tree Stratum (Plot Size:)	<u>% Cover</u>	Species?	<u>Status</u>	Dominance Test Work	ksneet:
1				Number of Dominant S	pecies 0 (A)
2				That Are Obl, FACW,	OFFAC.
3				Total Number of Domin	nant <u>1</u> (B)
4				Species Across Air Sira	ala.
Sanling/Shruh Stratum (Plot Size:)	—	= Total Cover	r	Percent of Dominant Sp That Are OBL, FACW.	pecies or FAC: <u>0</u> (A/B)
<u>Saping/Sinub Stratum</u> (Flot Size)			-		rkehoot:
2				Total % Cover o	NSHEEL.
3				OBL species	x1 =
4				FACW species	x2 =
5.				FAC species	X3 =
· · · · · · · · · · · · · · · · · · ·		= Total Cover		FACU species	x4 =
Horb Stratum (Diat Siza: E!)					^
	100		FAOL	OF L Species	XJ (D)
1. Bromus inermis	<u>100</u>	<u>yes</u>	FACU	Column Totals:	(A) (B)
2				Prev	valence Index = B/A =
3				Hydrophytic Vegetatio	on Indicators:
4				1 – Rapid 1	
5				2 - Dominar	nce Test is >50%
7.				3 – Prevale	ence Index is ≤3.0 ¹
8.				4 - Morphol Remark	logical Adaptations ¹ (Provide supporting data in ks or on a separate sheet)
9				Problematic	c Hydrophytic Vegetation ¹ (Explain)
10				¹ Indicators of hydric soi	il and wetland hydrology must be present,
	<u>100</u>	= Total Cover	r	unless disturbed or pro	blematic.
Woody Vine Stratum (Plot Size:)					
1					
2					
		= Total Cover	r		
% Bare Ground in Herb Stratum <u>0</u>				Hydrophytic Vegetation	on Present? Yes 🗌 No 🛛
Remarks:					

SOI	L									Sampling Point: 32		
Prof	ile Descr	iption: (Describe to	the depth neede	ed to doc	ument the ir	ndicator	or confirm the a	absence of indi	icators.)			
D	epth	Matrix			F	ledox Fe	atures					
(inch	nes)	Color (moist)	% C	olor (Mo	oist)	%	Type ¹	Loc ²	Textu	re Remarks		
	0-5	10YR 2/2	100						<u> </u>			
5	<u>5-16</u>	<u>2.5Y 4/2</u>	<u>100</u>		_				<u> </u>	no redoximorphic features		
_					_							
_					_							
_					_							
_					_							
_					_							
_					_							
¹ Typ	e: C= Co	ncentration, D=Depl	etion, RM=Redu	ced Matr	ix, CS=Cov	ered or C	Coated Sand G	rains. ² Locatio	on: PL=P	ore Lining, M=Matrix		
Hydi	ric Soil Ir	idicators: (Applicat	ole to all LRRs, u	nless oth	erwise note	d.)			Inc	licators for Problematic Hydric Soils ³ :		
	Histoso	(A1)			Sandy Gle	eyed Mat	trix (S4)			1 cm Muck (A9) (LRR I, J)		
	Histic Epipedon (A2)				Sandy Re	dox (S5)	1			Coast Prairie Redox (A16) (LRR F, G, H)		
	Black Histic (A3)			Stripped N	/latrix (S	6)			Dark Surface (S7) (LRR G)			
	Hydrogen Sulfide (A4)			Loamy Mu	icky Min	eral (F1)			High Plains Depressions (F16)			
	Stratified Layers (A5) (LRR F)				Loamy Gl	eyed Ma	trix (F2)			(LRR H outside of MLRA 72 & 73)		
	1 cm Muck (A9) (LRR F, G, H)				Depleted I	Matrix (F	3)			Reduced Vertic (F18)		
	Deplete	d Below Dark Surfa	ce (A11)		Redox Da	rk Surfa	ce (F6)			Red Parent Material (TF2)		
	Thick D	ark Surface (A12)			Depleted Dark Surface (F7)					Very Shallow Dark Surface (TF 12)		
	Sandy M	/lucky Mineral (S1)			Redox Depressions (F8)					Other (Explain in Remarks)		
	2.5 CM	Mucky Peat or Peat	(S2)(LRR G, H)] High Plains Depressions (F16)					dicators of hydrophytic vegetation and wetland trology must be present unless disturbed or		
	5 cm M	ucky Peat or Peat (S	63) (LRR F)		(MLRA 7	2 & 73 c	of LRR H)		blematic.			
Rest	rictive L	ayer (if present):										
Туре	:											
Dept	h (Inches):							Ну	dric Soils Present? Yes 🗌 No 🛛		
Rem	arks <i>:</i>											
HYD	ROLOG	6Y										
Wetl	and Hyd	rology Indicators:										
Prim	ary Indica	ators (minimum of o	ne required; chec	k all that	t apply)				Seco	ondary Indicators (2 or more required)		
	Surface	e Water (A1)			Salt Crust	(B11)				Surface Soil Cracks (B6)		
	High W	ater Table (A2)			Aquatic In	vertebra	tes (B13)			Sparsely Vegetated Concave Surface (B8)		
	Saturat	ion (A3)			Hydrogen	Sulfide (Odor (C1)			Drainage Patterns (B10)		
	Water	/larks (B1)			Dry Seaso	on Water	Table (C2)			Oxidized Rhizospheres along Living Roots (C3)		
	Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3)								(where tilled)			

	Drift Deposits (B3)					(where not tilled)		Crayfish Burrows (C8)			
	Algal Mat or Crust (B4)				Presence of Reduced Iron (C4)		Saturation Visible on Aerial Image				
	Iron Deposits (B5)				Thin Muck Surface (C7)	Geomorphic Position (D2)					
] Inundation Visible on Aerial Imagery (B7)					Other (Explain in Remarks)	FAC-Neutral Test (D5)				
	Water-Stained Leaves (B9)							Frost-Heave Hum	nocks ([07) (LRR	F)
Field	Observations:										
Surface Water Present?		Yes		No	\boxtimes	Depth (inches):					
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):					
Saturation Present? (includes capillary fringe)		Yes		No	\boxtimes	Depth (inches):	Wetland Hy	drology Present?	Yes		No
Desc	ribe Recorded Data (s	tream gau	uge, mo	onitoring	g well, a	aerial photos, previous inspections), if ava	ailable:				
Dama	aulta .										

Remarks:

Water is conveyed to this location but flows off through the adjacent culvert and south under the runway.

 \boxtimes No

WETLAND DET	ERMINA	FION DAT	A FORM	I – Great Plains Region
Project Site: <u>Stanley Municipal Airport</u>			City/Cou	unty: <u>Stanley /</u> Sampling Date: <u>9/24/2020</u>
Applicant/Owner: <u>Mead & Hunt</u>				State: <u>ND</u> Sampling Point: <u>34</u>
Investigator(s): <u>GWM & DEV</u>			Section,	, Township, Range: <u>29-156-91</u>
Landform (hillslope, terrace, etc.): drain		Local	relief (conc	ave, convex, none): <u>concave</u> Slope (%): <u>2</u>
Subregion (LRR): <u>F</u> Lat: <u>48.3013</u>	<u>381</u>		Long: <u>-1</u>	02.407183 Datum: <u>NAD 83</u>
Soil Map Unit Name: <u>C800A Appam sandy loam, 2-6</u>	% slopes			NWI classification: <u>na</u>
Are climatic / hydrologic conditions on the site typical for	this time of y	rear? Yes	🗆 No [⊠ (If no, explain in Remarks.)
Are Vegetation \Box , Soil \Box , or Hydrology	□, significa	antly disturbed?	? Are "	Normal Circumstances" present? Yes 🛛 No 🗌
Are Vegetation \Box , Soil \Box , or Hydrology	□, naturall	y problematic?	(If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	nowing san	npling point	locations,	transects, important features, etc.
Hydrophytic Vegetation Present?	Yes 🗌	No 🖂		
Hydric Soil Present?	Yes ∐	No 🖂		
Wetland Hydrology Present?	Yes 🗌	No 🛛 🛛	s the Samp	oling Area within a Wetland? Yes 🗌 No 🛛
Remarks:				
Constructed drain. Dry conditions at time of the deli	neation.			
VEGETATION – Use scientific names of plants	S Absolute	Dominant	Indicator	
Tree Stratum (Plot Size:)	% Cover	Species?	Status	Dominance Test Worksheet:
1				Number of Dominant Species 0 (A)
2				That Are OBL, FACW, or FAC:
3				Total Number of Dominant
4				Species Across All Strata:
Sapling/Shrub Stratum (Plot Size:)		= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
1				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3				OBL species x1 =
4				FACW species x2 =
5				FAC species x3 =
		= Total Cover		FACU species x4 =
<u>Herb Stratum (</u> Plot Size: <u>5'</u>)				UPL species x5 =
1. Poa pratentis	45	ves	FACU	Column Totals: (A) (B)
2. Thlaspi arvense	35	ves	FACU	Prevalence Index = B/A =
3. Cirsium arvense	20	ves	FACU	Hydrophytic Vegetation Indicators:
4.		<u> </u>		1 – Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				3 – Prevalence Index is <3.0 ¹
7				
8				A - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10				¹ Indicators of hydric soil and wetland hydrology must be present,
	<u>100</u>	= Total Cover		unless disturbed or problematic.
Woody Vine Stratum (Plot Size:)				
1				
2				
		= Total Cover		
% Bare Ground in Herb Stratum 0				Hydrophytic Vegetation Present? Yes 🗌 No 🛛
Remarks:				

SOIL							Sampling Point: 34			
Profile De	scription: (Describe to the de	pth needed to do	cument the indic	ator or confirm the	absence of ind	icators.)				
(inchoo)	Deptn Matrix		Ked		1.002	Toxturo	Pemerka			
(incries)			10IST) %	Туре	LOC	Texture	Remarks			
<u>0-0</u>	<u>101 R 2/2</u> 100	<u>'</u>				<u> </u>				
8-10	<u>2.5Y 4/2</u> 100	<u> </u>				<u>CI</u>				
							·			
							·			
							·			
							·			
							·			
1T 0	<u> </u>									
Type: C=	Concentration, D=Depletion, F		trix, CS=Covere	d or Coated Sand C	Frains. ² Locati	on: PL=Pore	e Lining, M=Matrix			
	Indicators: (Applicable to al		therwise noted.)				ators for Problematic Hydric Soliss:			
	osol (A1)		Sandy Gleye	d Matrix (S4)						
	ic Epipedon (A2)		Sandy Redox	(85)			Coast Prairie Redox (A16) (LRR F, G, H)			
	x Histic (A3)		Stripped Mati	TX (S6)			Dark Surface (S7) (LRR G)			
	rogen Sulfide (A4)		Loamy Muck	/ Mineral (F1)			High Plains Depressions (F16)			
∐ Stra	tified Layers (A5) (LRR F)		Loamy Gleyed Matrix (F2)				(LRR H outside of MLRA 72 & 73)			
∐ 1 cm	n Muck (A9) (LRR F, G, H)		Depleted Mat	rix (F3)			Reduced Vertic (F18)			
	leted Below Dark Surface (A11		Redox Dark S	Surface (F6)			Red Parent Material (TF2)			
	k Dark Surface (A12)		Depleted Dark Surface (F7)				Very Shallow Dark Surface (TF 12)			
	dy Mucky Mineral (S1)		Redox Depre	ssions (F8)		³ Indicators of hydrophytic vegetation and wetland				
		. кк G, H) 📋				hydrology must be present, unless disturbed or				
☐ 5 cm	n Mucky Peat of Peat (53) (LR	RF)	(WILKA 72 8	(73 OF LRR H)		proble	ematic.			
-	e Layer (il present).									
Type:										
Depth (Inc	nes):					Hydri	c Soils Present? Yes 🗌 No 🛛			
Remarks:										
HYDROL	LOGY									
Wetland H	Hydrology Indicators:									
Primary In	idicators (minimum of one requ	ired; check all th	at apply)			Second	lary Indicators (2 or more required)			
□ Sur	face Water (A1)	\Box s	Surface Soil Cracks (B6)							

Primary indicators (minimum of one required; check all that apply)								Sec	ondary indicators (2	or more	required)		
	Surface Water (A1)					Salt Crust (B11)			Surface Soil Crack	ks (B6)				
	High Water Table (A2)					Aquatic Invertebrates (B13)			Sparsely Vegetated Concave Surface (B8)					
	Saturation (A3)					Hydrogen Sulfide Odor (C1)			Drainage Patterns (B10)					
	Water Marks (B1)					Dry Season Water Table (C2)			Oxidized Rhizospł	neres alc	ong Living	J Roots (C3)	
	Sediment Deposits (B	2)				Oxidized Rhizospheres along Living Roc	Oxidized Rhizospheres along Living Roots (C3) (where tilled)							
	Drift Deposits (B3)					(where not tilled)	(where not tilled)			Crayfish Burrows (C8)				
	Algal Mat or Crust (B4)				Presence of Reduced Iron (C4)	Saturation Visible on Aerial Image			I Imagery	/ (C9)				
	Iron Deposits (B5)				Thin Muck Surface (C7)		\boxtimes	Geomorphic Position (D2)						
	Inundation Visible on Aerial Imagery (B7)					Other (Explain in Remarks)			FAC-Neutral Test (D5)					
□ Water-Stained Leaves (B9)									Frost-Heave Hum	mocks ([07) (LRR	F)		
Field	Observations:													
Surfa	ace Water Present?	Yes		No	\boxtimes	Depth (inches):								
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):								
Satuı (inclu	ration Present? ides capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetlar	nd Hyd	drology Present?	Yes		No	\boxtimes	
Desc	ribe Recorded Data (st	ream gau	uge, mo	onitoring	g well, a	aerial photos, previous inspections), if avai	ilable:							
Rem	arks:													
Wate	Water is conveyed to this location but flows south within the constructed drain.													

WETLAND DET	ERMINA	TION DAT	A FORM	l – Great	Plains	Regio	n			
Project Site: <u>Stanley Municipal Airport</u>			City/Cou	unty:	<u>Stanley /</u> Mountrail	:	Sampling Dat	e: <u>9/24/2</u>	020	
Applicant/Owner: Mead & Hunt					State:	ND	Sampling Poir	nt: <u>36</u>		
Investigator(s): <u>GWM & DEV</u>			Section,	Township, F	Range:	<u>33-156-91</u>				
Landform (hillslope, terrace, etc.): <u>swale</u>		Local	relief (conca	ave, convex,	none):	concave		Slope (%	6): <u>2</u>	
Subregion (LRR): <u>F</u> Lat: <u>48.2978</u>	<u>393</u>		Long: <u>-1</u>	02.395526		0	Datum: <u>NAE</u>	<u>) 83</u>		
Soil Map Unit Name: <u>C800A Appam sandy loam, 2-6</u>	% slopes					NWI class	ification: <u>na</u>			
Are climatic / hydrologic conditions on the site typical for	this time of y	vear? Yes	🗌 No 🕻	🛛 (lf no, e	explain in F	Remarks.)				
Are Vegetation , Soil , or Hydrology	☐, significa	antly disturbed	? Are "I	Normal Circu	umstances	" present?	Yes 🛛	No		
Are Vegetation , Soil , or Hydrology], naturall	y problematic?	(If ne	eded, explai	n any ansv	wers in Ren	narks.)			
SUMMARY OF FINDINGS – Attach site map sh	owing san	npling point	locations,	transects	, importa	ant featur	es, etc.			
Hydrophytic Vegetation Present?	Yes 🗌	No 🛛								
Hydric Soil Present?	Yes 🗌	No 🖾								
Wetland Hydrology Present?	Yes 🗌	No 🖂	Is the Samp	ling Area w	vithin a We	etland?	Yes 🗌	No	\boxtimes	
Remarks:										
Ephemeral swale that conveys water indirectly to the	e Stanley Re	servoir. Dry c	onditions at	time of the	delineati	on.				
VEGETATION – Use scientific names of plants	i									
Tree Stratum (Plot Size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominanc	ce Test Wo	orksheet:				
1	—		—	Number of	Dominant	Species	<u>0</u>	(A)		
2										
3. <u> </u>				Total Num Species Ad	ber of Don cross All S	ninant Strata:	<u>1</u>	(B)		
T		= Total Cover		, Dereent of	Deminant	Chaolea				
Sapling/Shrub Stratum (Plot Size: 15')				That Are C	Dominant DBL, FACV	V, or FAC:	<u>o</u>	(A/B)		
1. Symphoricarpos occidentalis	<u>5</u>	no	FACU	Prevalenc	e Index w	orksheet:				
2				Tota	al % Cove	<u>r of:</u>	Multiply by	<u>:</u>		
3				OBL speci	es		x1 =			
4				FACW spe	ecies		x2 =			
5				FAC speci	es		x3 =			
	<u>5</u>	= Total Cover		FACU spe	cies		x4 =			
<u>Herb Stratum (</u> Plot Size: <u>5'</u>)				UPL speci	es		x5 =			
1. Bromus inermis	95	ves	FACU	Column To	ntals:		(A)	(B)	
2. Cirsium arvense	5	no	FACU	Oolanni Te	Pi	revalence l	ndex = B/A =			
3.	-			Hydrophy	tic Vegeta	ation Indica	ators:			
4.					1 – Rapio	d Test for H	lydrophytic Ve	getation		
5					2 - Domir	nance Test	is >50%			
6					3 – Preva	alence Inde	ox is <3 0¹			
7					4 Morph		dentetione ¹ (D	rovido oup	porting data in	
8					Rema	arks or on a	a separate she	eet)	porting data in	
9					Problema	atic Hydropl	hytic Vegetati	on ¹ (Explai	n)	
10				¹ Indicators	of hydric	soil and we	tland hydrolog	gy must be	present,	
	<u>100</u>	= Total Cover		unless dist	turbed or p	problematic.				
Woody Vine Stratum (Plot Size:)										
1										
2										
		= Total Cover								
% Bare Ground in Herb Stratum <u>0</u>				Hydrophy	tic Vegeta	ation Prese	ent? Yes		No 🛛	
Remarks:										

SOIL								Sampling Point: 36				
Profile Des	cription: (Describe to th	e depth neede	d to doc	ument the indicato	or or confirm the a	bsence of ind	licators.)	·				
Depth	Matrix		Redox Features									
(inches)	Color (moist)	% C	olor (Mc	oist) %	Type ¹	Loc ²	Texture	e Remarks				
0-10	10YR 2/2	100		· · · · · · · · · · · · · · · · · · ·			<u> </u>					
<u>10-17</u>	<u>2.5Y 4/3</u>	<u>100</u>					<u>cs</u>					
								<u> </u>				
								<u> </u>				
¹ Type: C= C	Concentration, D=Depleti	on, RM=Reduc	ced Matr	rix, CS=Covered o	r Coated Sand G	rains. ² Locati	ion: PL=Por	e Lining, M=Matrix				
Hydric Soil	Indicators: (Applicable	to all LRRs, ur	nless oth	nerwise noted.)			Indic	ators for Problematic Hydric Soils ³ :				
Histor	sol (A1)			Sandy Gleyed N	latrix (S4)			1 cm Muck (A9) (LRR I, J)				
Histic	Epipedon (A2)			Sandy Redox (S	,5)			Coast Prairie Redox (A16) (LRR F, G, H)				
Black	. Histic (A3)		Stripped Matrix (S6)					Dark Surface (S7) (LRR G)				
Hydro	ogen Sulfide (A4)			Loamy Mucky M	ineral (F1)			High Plains Depressions (F16)				
Stratif	fied Layers (A5) (LRR F)	t.		Loamy Gleyed N	/latrix (F2)			(LRR H outside of MLRA 72 & 73)				
1 cm /	Muck (A9) (LRR F, G, H)		Depleted Matrix	(F3)			Reduced Vertic (F18)				
Deple	eted Below Dark Surface	(A11)		Redox Dark Sur	face (F6)			Red Parent Material (TF2)				
Thick	. Dark Surface (A12)		Depleted Dark Surface (F7)					Very Shallow Dark Surface (TF 12)				
Sandy	y Mucky Mineral (S1)			Redox Depressi	ons (F8)		3	Other (Explain in Remarks)				
2.5 CM	M Mucky Peat or Peat (S	52)(LRR G, H)		High Plains Dep	ressions (F16)		Sinak hvdre	cators of hydrophytic vegetation and wetland plogy must be present, unless disturbed or				
□ 5 cm /	Mucky Peat or Peat (S3)	(LRR F)		(MLRA 72 & 73	3 of LRR H)		probl	lematic.				
Restrictive	Layer (if present):											
Туре:												
Depth (Inch	ies):						Hydr	r ic Soils Present? Yes 🗌 No 🖾				
Remarks:												
	JGY											
Wetland hy	/drology indicators.		-l- all tha				Casar	demote discharge (2 as more required)				
		requirea; checi					Secon	dary Indicators (2 or more required)				
	ace Water (A1)			Salt Crust (B11)	(D42)			Surface Soil Cracks (B6)				
Hign	Water Table (A2)			Aquatic inverted	rates (B13)							
Satur	ration (A3)			Hydrogen Sulfide	e Odor (C1)			Drainage Patterns (B10)				
[] Wate	er Marks (B1)			Drv Season Wat	(er Table (C2)		[] (Oxidized Rhizospheres along Living Roots (C3				

Wetla	Wetland Hydrology Indicators:												
Prima	ary Indicators (minimum	of one re	equired	; check	Secondary Indicators (2 or more required)								
	Surface Water (A1)					Salt Crust (B11)			Surface Soil Cracks (B6)				
	High Water Table (A2)				Aquatic Invertebrates (B13)			Sparsely Vegetated Concave Surface (B8)				
	Saturation (A3)					Hydrogen Sulfide Odor (C1)			Drainage Patterns	(B10)			
	Water Marks (B1)					Dry Season Water Table (C2)			Oxidized Rhizosph	neres alo	ng Living	g Roots (C3)
	Sediment Deposits (B	2)				Oxidized Rhizospheres along Living Root	ts (C3)		(where tilled)				
	Drift Deposits (B3)					(where not tilled)			Crayfish Burrows ((C8)			
	Algal Mat or Crust (B4	ł)				Presence of Reduced Iron (C4)		Saturation Visible	on Aeria	I Imagery	y (C9)		
	Iron Deposits (B5)					Thin Muck Surface (C7)	\boxtimes	Geomorphic Position (D2)					
	Inundation Visible on Aerial Imagery (B7)					Other (Explain in Remarks)	FAC-Neutral Test	FAC-Neutral Test (D5)					
□ Water-Stained Leaves (B9)									Frost-Heave Humr	nocks (E)7) (LRR	F)	
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
Satur (inclu	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetlar	nd Hyo	drology Present?	Yes		No	\boxtimes
Desc	ribe Recorded Data (st	iream gau	lge, mo	nitoring	g well, a	aerial photos, previous inspections), if availa	able:						
Rem	arks:												

Appendix D

Project Area Permission Sheet

Property Access Authorization:

Primary Contact:

JEN BOEHM, PE, LEED AP BD+C

CIVIL ENGINEER, AVIATION Mead & Hunt Direct: 701-566-6449 | Cell: 303-704-0726 |

Arrange/schedule any site access with Ms Boehm. Escorting may be required and needs to be coordinated with Ms. Boehm and the Airport.
Appendix E

Aquatic Resources Excel Sheet

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
# 1a	NORTH DAKOTA	PEMA		Area	0.28	ACRE	DELINEATE	48.299551	-102.398409	
# 1c	NORTH DAKOTA	PEMAx		Area	0.01	ACRE	DELINEATE	48.300018	-102.399052	
# 2a	NORTH DAKOTA	PEMAx		Area	0.05	ACRE	DELINEATE	48.300036	-102.401181	
# 2b	NORTH DAKOTA	PEMAx		Area	0.04	ACRE	DELINEATE	48.30012	-102.401974	
# 3b	NORTH DAKOTA	PEMAd		Area	0.26	ACRE	DELINEATE	48.300672	-102.404435	
# 4	NORTH DAKOTA	PEMA		Area	0.22	ACRE	DELINEATE	48.302414	-102.411615	
# 5b	NORTH DAKOTA	PEMAx		Area	0.02	ACRE	DELINEATE	48.298473	-102.407618	