

Appendix D: Wetland Delineation Report

WETLAND DELINEATION REPORT

John & Marie Clark, ETAL.

3266 State Highway 64

Bloomer, WI 54724

T31N R10W SECTION 28

&

DRT SANDS INC

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Bloomer, WI 54724

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October 31, 2014

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INTRODUCTION

As shown in **FIGURES 1 & 2**, the property is located in T31N, R10 W, Section 28 of Chippewa County, WI. It is owned by the John & Mary Clark ETAL. The total parcel is about 266 acres. The DRT Sands INC company is considering purchasing the property for a non-metallic mine. DRT Sands INC's engineering consultant, Sunde Engineering, PLLC, determined that there were potential wetlands on the property from the WDNR Surface Water Data Viewer Website. Anna Breland, Sunde Engineering, PLLC contacted Wisconsin Wetland Specialists to conduct a wetland boundary delineation on the property. Maria Scholze and John Scholze, Wisconsin Wetland Specialists, were on-site on October 15, 16 and 31, 2014 to conduct the wetland delineation field work.

Jurisdiction and regulatory authority lies with the US Army Corps of Engineers (US ACE) over waters of the United States, adjacent wetlands, and some types of isolated wetlands as defined under Section 404 of the Federal Clean Water Act (33 CFR 328.3(a)). The permitting process is overseen by the Environmental Protection Agency (EPA) and is reviewed by the US Fish and Wildlife Service (US FWS). The Wisconsin Department of Natural Resources (WDNR) has regulatory authority over wetlands, navigable waters, and adjacent lands under Chapter 30 of the Wisconsin State Statutes, Act 6, and Wisconsin Administrative Code NR 103.

METHODS

The wetland boundary delineation was performed as outlined in the January 1987 version of the US ACE, "Wetland Delineation Manual". Additional guidance for the delineation was from the US ACE, "Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region", Version 2.0, August 2010 and the WDNR, "Basic Guide to Wisconsin's Wetlands and Their Boundaries", 1995 Version. The USDA, NRCS, "Field Indicators of Hydric Soils in the United States", Version 7.0, 2010, (including 2011 and 2013 errata) and the Pocket Guide adapted for use in Minnesota and Wisconsin, Edition 3.0, August 2012, were used to describe and classify hydric soil characteristics.

Information on land records, historical land use, soils, previously mapped or identified state or federal wetlands, precipitation records and plant identification about the site were obtained from the following sources:

- Chippewa County Land Record/County Survey website to obtain tax record information to verify ownership of parcels involved in the proposed project.
- Chippewa County, WI GIS website to obtain topographic and other site information.
- WDNR, Wisconsin Wetland and Wetland Indicators (WDNR W&WI) website to obtain information about any identified wetlands and their descriptions on the proposed project site.
- USDA, Natural Resource Conservation Service (NRCS), Web Soil Survey website to obtain the soils mapped for the site and their descriptions.
- US Fish & Wildlife Service (US FWS), National Wetland Inventory (NWI), website to obtain information on any federal wetlands that have been identified on the site.
- Wisconsin State Cartographer's Office, Wisconsin Historic Aerial Image Finder, website used to review any historical aerial photos of the property showing changes in land use over time.
- USDA NRCS, National Water and Climate Center (NWCC) and PRISM Climate Group website for Chippewa County WETS tables and high spatial resolution digital maps for this site.

- US Army Corps of Engineers (US ACE) 2014 National Wetland Plant List version 3.2 website to obtain a copy of the State of Wisconsin 2014 Plant List.

The vegetation was named according to the State of Wisconsin 2014 Plant List, developed by the US ACE from 2014 National Wetland Plant List version 3.2. In determining if hydrophytic vegetation was present, the Dominance Test and the Prevalence Index was used for each sample point.

The wetland boundary determination was made by evaluating the soil, hydrology (surface and subsurface), and vegetation at sample points along transects were positioned approximately perpendicular to the wetland boundary. The minimum number of transects for a particular length of wetland boundary are specified in the federal guidelines. Additional transects and sample points were added based of site-specific issues. Site-specific issues may include, but are not limited to, additional drainage area channels, unusual changes in vegetation, and topography changes. A shovel and soil probe were used in conjunction with topography and plants to place the wetland boundary flags along the transects and if necessary between transects. While in the field, the information for each sample point was recorded on a US ACE, "Wetland Determination Data Form-Midwest Region Version 2". This information was then transferred into the v6.2 Excel spreadsheet found on the US Army Corps of Engineers (US ACE) St. Paul website, and they are included in this report (**APPENDIX A**). The data collection and evaluation was done in accordance with the criteria and procedures described in both the federal and state manuals.

Each sample point was marked with a yellow flag and the delineated wetland boundary was marked by pink flags labeled "Wetland Delineation". The sample points were identified by both transect number and a hole number. For example: sample point #4 along transect #2 would be marked and recorded as T2 H4. In some areas it was determined that additional data was needed to confirm field decisions. These points were not located along any transect. The points were identified as Information Points (IP1). The vegetation, soil and hydrology were documented for these points. The information found at the sample points and the information points will be discussed later in this report.

The location of the delineated wetland boundary, sample points, culvert locations, drainageways, information points and other relevant site information were mapped using an Ashtech MobileMapper 100. The MM100 has a real-time horizontal accuracy of less than 20 inches (50 cm). In areas where internet connection to the WISCORS (Wisconsin Continuously Operating Reference Stations) base stations system can be maintained, the real-time accuracy improves to 12 inches (30cm). The state plane reference data used for the GPS mapping was the USA-System NAD 83-CORS 96, Wisconsin Central. The field location data was then downloaded as shape files into ESRI ArcMap 10.2.2 software to develop the wetland maps for the site (**FIGURE 9**).

A NRCS Voluntary Authorization for Release of Information Form was obtained and signed by the owner to allow access to any NRCS file information pertinent to the delineation. This includes obtaining copies of the digitized aerial photography and any previous FSA wetland determinations that were done on the property. This information will be discussed in more detail later in this report.

SITE INFORMATION

- **BACKGROUND:**

The FEMA Flood Insurance Rate Map, CID #55017C0190E, effective date March 2, 2010 (**FIGURE 3**) shows the classification of “Zone X Other Areas” as the flood risk for this property. This is defined as “Areas determined to be outside the 0.2% annual chance floodplain. The MLRA is 105, Northern Mississippi Valley Loess Hills and the LRR is M, Central Feed Grains and Livestock Region.

According to records at the USDA NRCS Service Center in Chippewa Falls, WI, there were no certified FSA wetland determinations done on this property. Copies of the digitized slides of the aerial flights for various years from 1981-2002 were obtained from the NRCS Area Office in Altoona, WI for review. The information gathered from the photo review was documented on a modified NRCS Form 32W and can be found in **APPENDIX B**. As mentioned previously, the total property is approximately 266 acres. Of that 266 acres, there are about 162 acres of woodland, about 62 acres of cropland, and about 42 acres of pastureland.

There were two wetland areas that were identified on the US FWS National Wetland Inventory (NWI) and the WDNR Wetland and Wetland Indicators (W&WI) maps. They are shown in essentially the same area and with similar boundaries on both maps. One wetland borders either side of a section of an un-named, intermittent stream that flows through the pasture area. The other wetland is identified as “too small to be delineated” and is located in the cropland in the northeast corner of the junction of HWY 64 and 30th Street. US FWS NWI identify both wetlands as PEMC. PEMC is defined as a “Fresh Emergent Meadow” having “herbaceous hydrophytes that are present for most of the growing season in most years and are usually dominated by perennial plants”. It is further defined as being seasonally flooded having “surface water present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years” (**FIGURE 7**). WDNR W&WI identified the wetland along the intermittent stream in the pasture area as E1Kg, which is defined as “Emergent/Wet Meadow” being a “persistent wetland that does not appear to have surface water for a prolonged period of time.” It is further defined as being a “grazed wetland” (**FIGURE 6**).

There are two soil types in the areas where the wetlands were previously identified on the NWI and W&WI maps (**FIGURE 5**). These are: Shiffer loam (So) and Rib silt loam (Rb). The Shiffer loam is classified as somewhat poorly drained with a water table of about 12 to 36 inches. It is not hydric and has a NRCS “Hydric Rating of 0” on the NRCS Soil Survey website. It is identified on the WDNR W&WI as potentially having hydric indicators in the soil profile. This is the soil that is located in the pasture area, along the intermittent stream channel. The Rib silt loam is classified as poorly drained with a depth to water table of 0 inches. It has a “Hydric Rating of 100”. It is considered a hydric soil. This is the soil that is located in the corner of the highway intersection. There is one other soil on the site that the WDNR W&WI identified as potentially having hydric indicators. It is the Magnor silt loam, MbB. It is classified as somewhat poorly drained with a water table at about 6 inches. The NRCS Hydric Rating for this soil is 0. It is located in the cropland along HWY 64. There were no wetlands previously identified in this area. The historic 1938 photo and the aerial photos from 1981 to 2013 show this area in crop production (**FIGURE 4**). A review of the 1981 to 2013 aerial photos gave no indication of the wet signatures in this area. The site visit on October 15, 2014 confirmed that there were no wetlands to be delineated in this area of the property.

Other soil types that were mapped in the area of the delineation were: Meridian loam (MIB), Humbird sandy loam (HuB) and Scott Lake loam (SdA). None of these soils are considered hydric. All have a NCRS Hydric Rating of 0. The Humbird sandy loam and the Scott Lake loam are considered moderately well drained with a depth to water table of 18 to 30 inches for the Humbird sandy loam and about 30 inches for the Scott Lake loam. The Meridian loam is classified as well drained with a depth to water table of over 80 inches. The Scott Lake loam was mapped along the drainageway of the intermittent stream, downstream from the pastureland to HWY 64. The Humbird sandy loam and the Meridian loam were mapped in the upland areas along the Shiffer loam and Scott Lake loam drainageway.

• **SITE HYDROLOGY:**

At the time of the wetland delineation, it was not known whether the mapped intermittent stream upstream from HWY 64 would be considered as a “navigable” by federal or state agencies. The NRCS, WDNR, and US FWS maps showed the intermittent stream’s source as a small pond that is located about 1460 feet upstream from the north property line. The aerial photos for 1981 to 2013 and the historic 1938 photo showed no pond in this area. The drainage area upstream from the north property line is about 74 acres.

The length of channel through the pastureland is about 1392 feet. The channel dimensions ranged from about 13 to 18 foot top width, 4 to 8 foot bottom width, and a depth of 2 to 2 1/2 feet. The photos below were taken from the same location, near the fenceline between the pastureland and the cropland.



LOOKING UPSTREAM AT CHANNEL IN PASTURE



LOOKING DOWNSTREAM AT CHANNEL IN CROPFIELD

According to John (Jack) Clark, there were about 20 cattle grazing in this pasture in 2014. Prior to that, there were no cattle in the pastureland for several years. The pasture was not overgrazed. At the time of the field work for the wetland delineation, there were 6 cattle left grazing in the pasture. The cattle seemed to avoid the hydrophytic plants in the wetter areas of the pastureland.

Downstream from the pastureland, the intermittent stream then flows through a grassed waterway between the cropfields for about 1255 feet where it reaches HWY 64. The total drainage area to this point is about 184 acres. The photo at the right was taken from Information Point IP4 looking upstream in the grassed waterway between the fields. The soil in this area was mapped the Scott Lake loam. The aerial photo review did not show any wet signatures within this waterway.



LOOKING UPSTREAM FROM IP4

There are no road culverts at the point where the intermittent stream meets HWY 64. Although the NRCS, US FWS and WDNR maps show the intermittent stream proceeding directly under HWY 64, at this point. The water actually flows easterly along the north side of HWY 64 for about 490 feet until it reaches two 32 inch CMP culverts with wingwalls. Then the water flows southeasterly through the existing woodlot and cropfield about 3940 feet. At that point the water flows through another culvert under HWY 64. It then flows for about another 1609 feet where it junctions with another un-named stream. Both streams then flow south about another 2560 feet, reaching Trout Creek.



INLET SIDE OF 32" CMP WITH WINGWALLS

There is also a 32 inch CMP culvert with wingwalls located under 30th Street. It is the outlet for the water from the small wetland on the northeast corner of the junction of HWY 64 and 30th Street. The photo on the right is of the inlet end of the culvert. This is the same type of culvert that is under HWY 64.

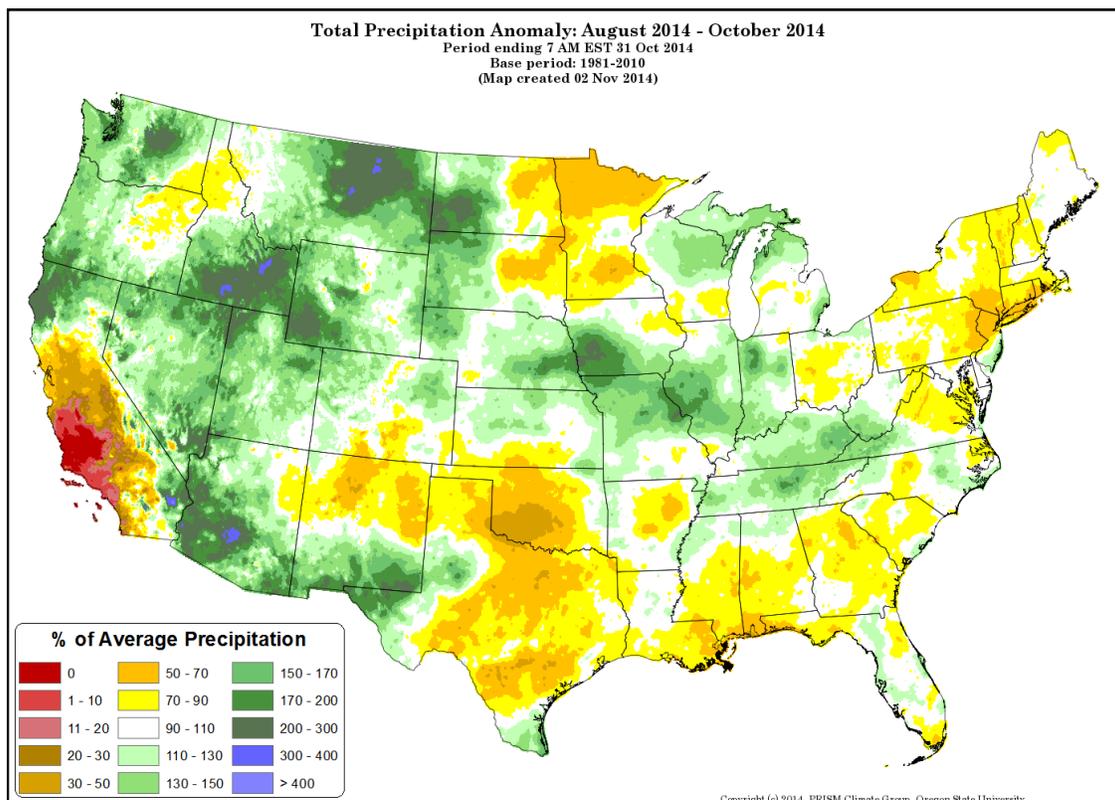
The aerial photo review did show wet signatures in this area in most years (**APPENDIX B**).

• **ANTECEDENT MOISTURE CONDITION:**

The information for the summary table below was taken from the NRCS WETS weather station at Bloomer, WI. The complete detailed information for the weather data is in **APPENDIX B**. The table shows that the antecedent moisture condition for this site for the three months prior to the delineation field activities was found to be “wetter than normal”.

MONTH	LESS THAN 3 YRS IN 10	MORE THAN 3 YRS IN 10	ACTUAL RAINFALL	CONDITION D, N, OR W	VALUE ON CONDITION	WEIGHTED MONTH	PRODUCT OF COLUMN 7 & 8
JULY	2.56	4.56	2.97	NORMAL	2	1	2
AUGUST	3.51	5.97	6.65	WET	3	2	6
SEPTEMBER	2.45	4.59	5.57	WET	3	3	9
SUM IS 15 TO 18, THEN THE PRIOR PERIOD HAS BEEN WETTER THAN NORMAL						TOTAL	17

The graphic below was compiled by the PRISM group. The total rainfall for August 1 to October 31 was 14.53 inches, which is 108.7% of normal range. The graphic below shows the area experiencing 110 to 130% of normal range precipitation for that same time period.



The rainfall for the month of October was 2.31 inches. This would be considered as within the normal range. It rained 0.52 inches on the 13th and 0.43 inches on the 14th. The field information for Transects 1 to 6 were obtained on October 15th and 16th. It also rained measurable amounts on the 22 and 23, with trace amounts on 27, 28 and 30. The field information for Transects 7 to 9 was obtained on October 31, 2014.

• **FIELD ACTIVITY OBSERVATIONS AND FINDINGS:**

As discussed previously, 20 cattle grazed this pasture area in 2014. Prior to 2014, the pastureland had been left fallow for a number of years. It was determined that the limited grazing did not affect the outcome of the hydrophytic vegetation decision for the following three reasons: 1. The area had been fallow for several years prior to 2014 when it was grazed; 2. The area was grazed by a very small concentration of cattle per acre; and 3. There were a variety of vegetative species present at the sample points. As mentioned previously, it appeared that the cattle did not graze the wetter areas where hydrophytes were dominant.

At the time of the field activities for the wetland delineation, there were still some vegetation that were actively growing and blooming. Photos of some of the plants observed are found in **APPENDIX C**.

The information gathered along Transects 1, 3 and 4 were typical for what one might expect along a drainageway. The specifics can be found on the data sheets in **APPENDIX A**. There were a couple areas where the wetlands that were delineated might not seem so typical. These would be the areas delineated by Transects 2, 5, 6, 7 and 8.

The area where the Transect 2 Sample Points and IP1 were located is on an upland terrace. This terrace is approximately 20 feet above the elevation of the intermittent stream. The area was slightly depressional and surface water was present at the time of the survey. IP1 soil pit was found to be a Depleted Matrix (F3) with Hydrogen Sulfide odor (A4) with Redox of 25% in the upper 12 inches of the soil profile. T2H4 was saturated to the surface, and was also a Depleted Matrix (F3) and Depleted Below Dark Surface (A11), with Redox of greater than 25% in the upper 12 inches of the soil profile. Some of the hydrophytic vegetation in this area were: Soft Rush (*Juncus effusus*), Carex sp., Bulrush (*Scirpus cyperinus*) and Canadian bluejoint grass (*Calamagrostis canadensis*). The picture at the right shows the soft rushes, bulrushes, and Carex.



AT SAMPLE POINT T2H4

It is suspected that this wetland area may be the result of a seep or small spring. As indicated by the delineation line, the overflow water from this terrace spring area evidently flows north towards the fence/property line and then downslope to the intermittent un-named stream. The landowner told the us that this area always sits wet.



The photo on the left was take at Sample Point T3 H7. This wetland area that was dominated by Rattlesnake manna grass (*Glyceria canadensis*) is adjacent to the un-named stream.



The wetland boundary that was defined by Transects 5, 6 and 7 in the drainageway had three types of wetlands: a sedge meadow, a wooded wetland, and a wet meadow depressional area. The photo at the left was taken from sample point T5H13 looking downstream in the drainageway at the existing sedge meadow.

AT T5H13 LOOKING DOWNSTREAM

Along the east side of the pasture, at the fenceline boundary between the pastureland and the woodland, there was a small ridge on the woodland side of the fence. This ridge may have been the result of a travel lane that was used regularly in the past. The surface water runoff from the upland wooded area flowed through breaches in this ridge into the pastureland. This small ridge does impede the flow of the surface water runoff from the approximate 26 acres drainage area within the woodland. The slope in the bottom of the drainageway in the wooded wetland portion is nearly level. The herb layer in most places was sparse, due to prolonged inundation. The trees in that area were shallow rooted. The size of the drainage area, the nearly level grade in the drainageway bottom, and the small ridge all contributed to the hydrology indicators that were found in the wooded wetland area.



The photos above are at T8H22. This was a disturbed area of the cropland that appeared to be depressional with no outlet. This area was not planted to corn. There are spots within this area that had no vegetation due to ponding. The corn at the edge of the depression was stunted. The aerial photo review of this area showed evidence of wet signatures in most years (**APPENDIX B**).

Transect 9 is in the area that was identified as “too small to be delineated” on the state and federal wetland maps. This area is located on the northeast side of the intersection of HWY 64 and 30th Street. The soil in this area is considered hydric. Both sample points were placed in the corn field. The wetland sample point, T9H24 had distinct redox at the surface, even though it was tilled to plant the corn. The corn in this area was stunted. Soft rush (*Juncus effusus*) was found growing in between the corn rows. The aerial photo review of this area showed evidence of wet signatures in most years (**APPENDIX B**).

Two Informational Points, IP3 and IP4, were dug and the soils and vegetation documented in the downstream reach of the intermittent stream that was described previously in this report as the grassed waterway. These informational points were selected to verify whether conditions existed to classify this area as a wetland. The soil profile showed no hydric indicators. The soil was 0” to 4” loamy sand, 4” to 16” gravelly sand, and 16” to 23” sand with rocks. The only surface hydrology indicator was that it was a drainageway. The common vegetation in the waterway was bromegrass (*Bromus inermis*), Kentucky bluegrass (*Poa pratensis*), and quackgrass (*Elymus repens*). It was determined that this reach of the intermittent un-named stream did not meet the criteria for a wetland.



ROCKS FOUND IN LOWEST 16” TO 23” LAYER AT IP3 & IP4

CONCLUSION

The site had wetter than normal moisture conditions for the three months preceding the wetland delineation field work. The rainfall for the month of October was considered to be within the normal range. There were still plants actively growing at the time of the field activities for the wetland delineation. There were no NRCS FSA wetland determinations done on this property. There were two wetland areas previously identified on state and federal maps on this property: 1. "Too Small to be Delineated" and 2. PEMC (NWI) and E1Kg (WNDR). Although the pastureland was recently grazed, it was determined that the limited grazing did not affect the outcome of the hydrophytic vegetation decision. Transects 8 and 9 were considered to be disturbed areas due to managed agricultural crops. The aerial photo review of these two areas found wet signatures in most years.

The wetland as defined by the sample points along Transects 1, 2, 3, 4, 6, 8 and 9 would be considered "Wet Meadows". The wetland defined by sample points along Transect 5 is a "Sedge Meadow". The wetland defined by sample points along Transect 7 is "Hardwood Wetland".

The delineations identified wetland boundaries according to current state and federal guidelines. The US ACE has regulatory authority over waters of the United States, adjacent wetlands, and some types of isolated wetlands as defined under Section 404 of the Federal Clean Water Act (33 CFR 328.3(a)). WDNR has regulatory authority over wetlands, navigable waters, and adjacent lands under Chapter 30, Wisconsin State Statutes, Act 6, and NR 103 Wisconsin Administrative Code. Local jurisdictions may have additional regulatory authority through shoreland or wetland zoning ordinances.

This report is limited to the identification of state and/or federally regulated wetlands. There may be other regulated environmental features with this property. The regulated features may include, but are not limited to, endangered or threatened species. The federal, state, and local units of government may restrict land use within or in close proximity to these features. The landowner is advised to check with county zoning departments prior to beginning any building activities on the property.

Prior to beginning work at this site or disturbing or altering wetlands, Wisconsin Wetland Specialists recommends that the owner obtain the necessary permits or other agency regulatory review and concurrence, with regard to the proposed project site activities.

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- US Fish & Wildlife Service, National Wetland Inventory, <http://www.fws.gov/wetlands/Wetlands-Mapper.html>
- UW-Stevens Point, Freckmann Herbarium Web site, www.wisplants.uwsp.edu.
- Wisconsin State Cartographer's Office, Wisconsin Historic Aerial Image Finder, <http://maps.sco.wisc.edu/WHAIFinder/>
- Wisconsin Department of Natural Resources, Surface Water Data Viewer-Wetlands and Wetland Indicators, <http://dnrmaps.wi.gov/imf/imf.jsp?site=SurfaceWaterViewer.wetlands>
- WDNR, Basic Guide to Wisconsin's Wetlands and Their Boundaries, 1995 Version.

FIGURES

- FIGURE 1:** Site Location Map
- FIGURE 2:** Chippewa County, WI Property Tax Records
- FIGURE 3:** FEMA Flood Insurance Rate Map
- FIGURE 4:** Wisconsin Historic 08/02/1938 Aerial Photo
- FIGURE 5:** USDA, Natural Resource Conservation Service, Web Soil Survey Map
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- FIGURE 8:** USGS Topographic Map
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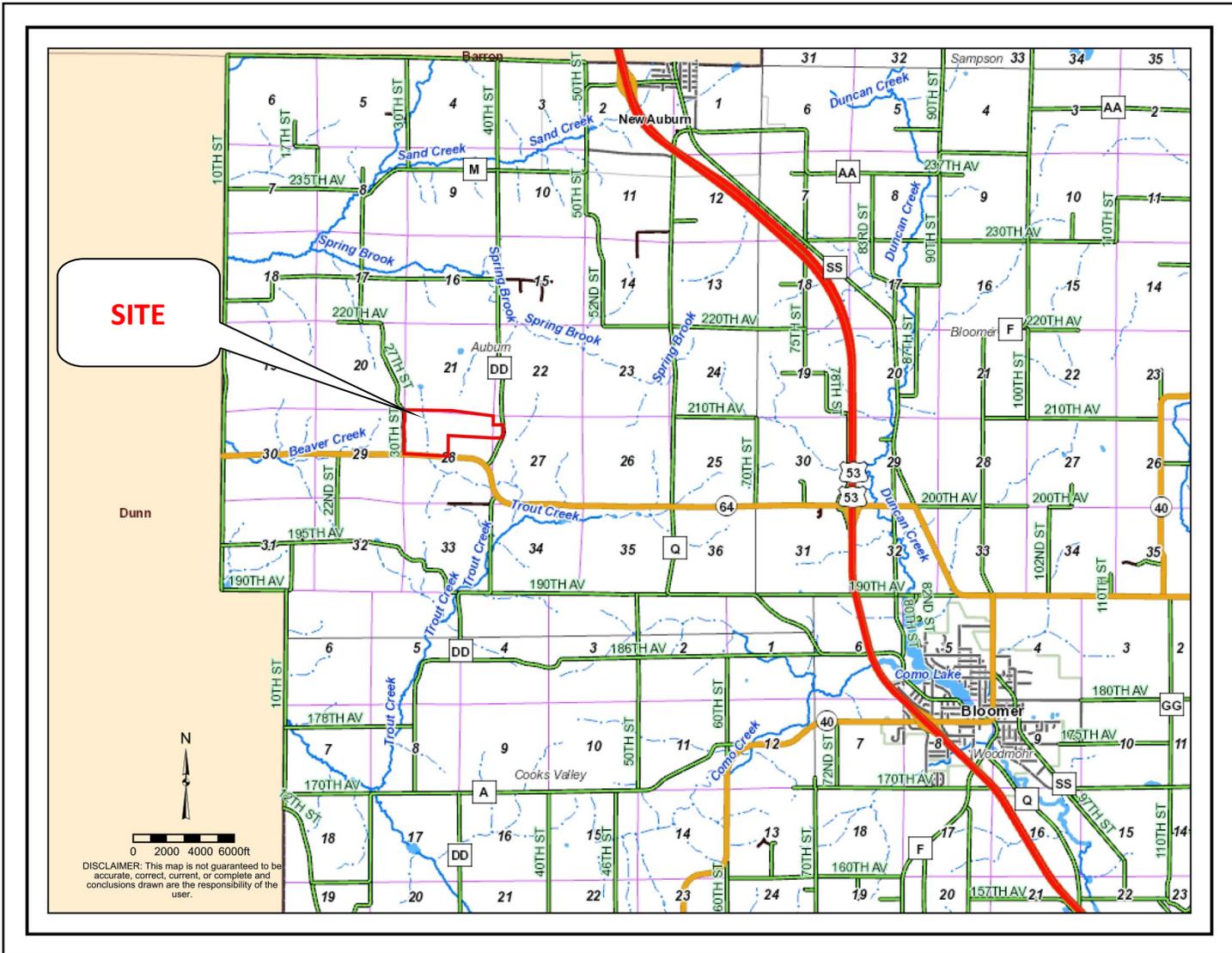


FIGURE 1: SITE LOCATION MAP

FIGURE 2: CHIPPEWA COUNTY, WI PROPERTY TAX RECORDS

Parcel Number:	23110-2822-00000000	Address: 3266 STATE HWY 64 BLOOMER WI , 547240000			
Computer Number:	006-524				
Municipality:	TOWN OF AUBURN				
Current Owner:	CLARK, LORI A %JOHN & MARIE CLARK			Assessment Year: 2013	
Property Address:		Legal Descriptions	SECT 28 TWN 31N RNG 10 NW NW		
Vol-Page/Doc#1:	682-267				
Vol-Page/Doc#2:	805-494				
Vol-Page/Doc#3:	749460				
	Acres	Land	Improvements	School District:	BLOOMER SCHOOL DIST
4 AGRICULTURE	39.00	2,100		Vctnl District:	CVTC DIST #0100
5 UNDEVELOPED	1.00	100		Total Acres:	40.00
				Total Land:	2,200

Parcel Number:	23110-2821-00000000	Address: 3266 STATE HWY 64 BLOOMER WI , 547240000			
Computer Number:	006-523				
Municipality:	TOWN OF AUBURN				
Current Owner:	CLARK, LORI A %JOHN & MARIE CLARK			Assessment Year: 2013	
Property Address:		Legal Descriptions	SECT 28 TWN 31N RNG 10 NE NW		
Vol-Page/Doc#1:	682-267				
Vol-Page/Doc#2:	805-494				
Vol-Page/Doc#3:	749460				
	Acres	Land	Improvements	School District:	BLOOMER SCHOOL DIST
5M ACRI. FOREST	32.68	29,400		Vctnl District:	CVTC DIST #0100
4 AGRICULTURE	3.00	200		Total Acres:	40.00
5 UNDEVELOPED	4.32	2,600		Total Land:	32,200

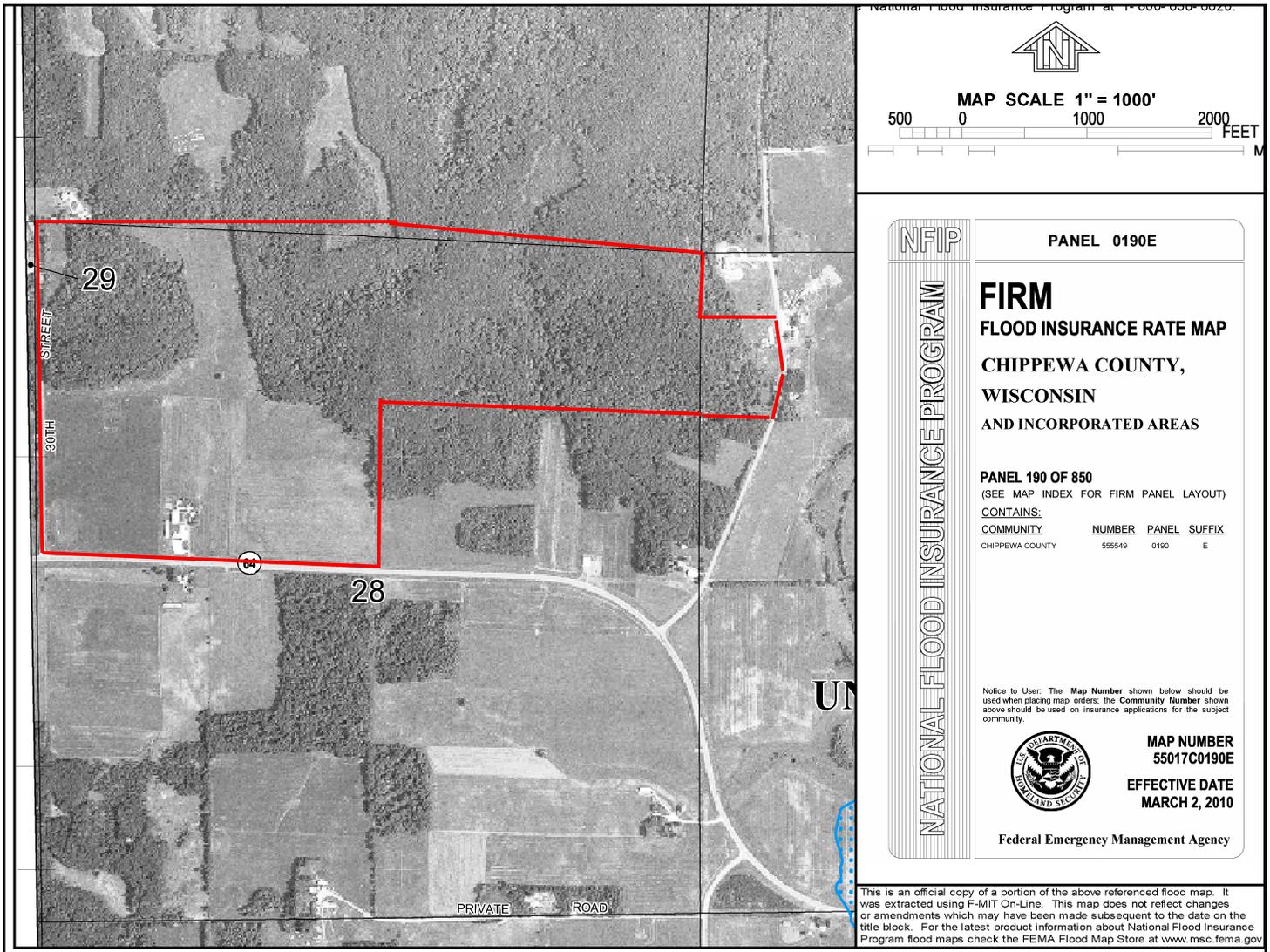


FIGURE 3: FEMA FLOOD INSURANCE RATE MAP



FIGURE 4: WISCONSIN HISTORIC 1938 AERIAL PHOTO

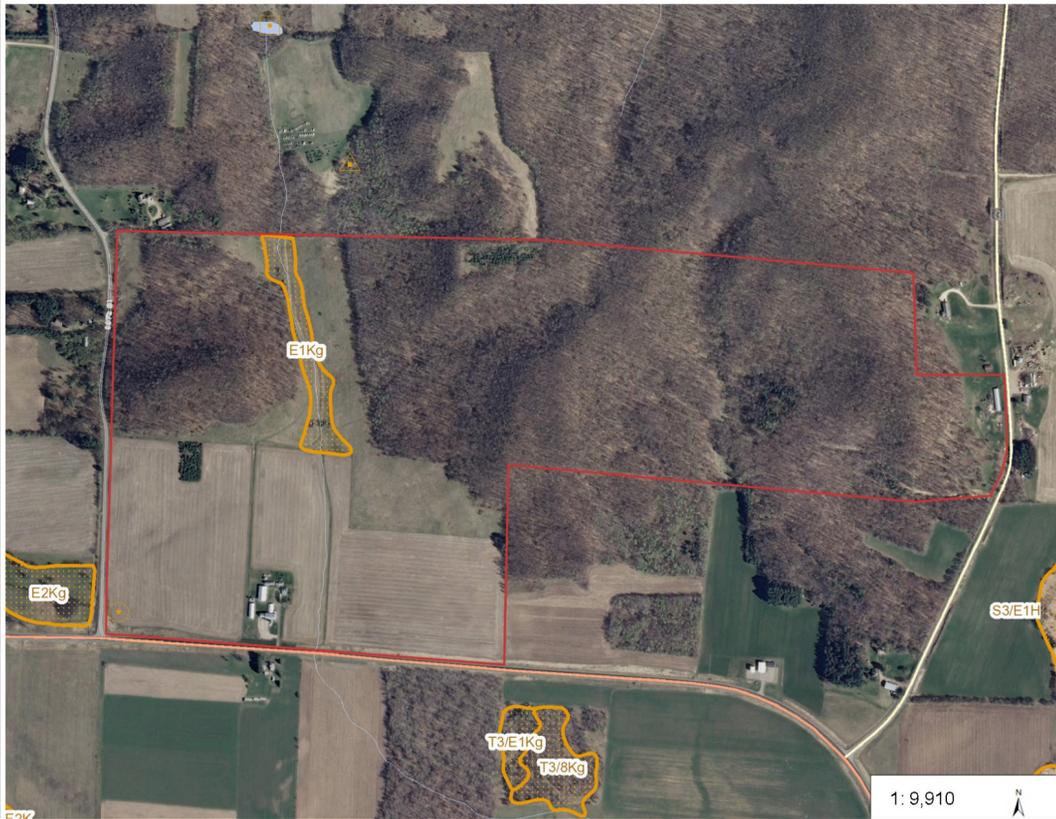
Map Unit Legend

Chippewa County, Wisconsin (WI017)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ApC2	Arland sandy loam, 6 to 12 percent slopes, eroded	4.3	1.7%
ApD2	Arland sandy loam, 12 to 20 percent slopes, eroded	12.8	4.9%
AsB	Arland loam, 2 to 6 percent slopes	0.9	0.3%
BIB	Billett sandy loam, 2 to 6 percent slopes	14.2	5.4%
BoE	Boone fine sand, 20 to 45 percent slopes	47.6	18.2%
CkC2	Chetek sandy loam, 6 to 12 percent slopes, eroded	11.0	4.2%
CkD2	Chetek-Mahtomedi complex, 12 to 25 percent slopes, eroded	0.3	0.1%
EIB	Eleva sandy loam, 2 to 6 percent slopes	11.7	4.5%
EIC2	Eleva sandy loam, 6 to 12 percent slopes, eroded	4.4	1.7%
EID2	Eleva sandy loam, 12 to 20 percent slopes, eroded	18.6	7.1%
EmE	Elkmound loam, 20 to 45 percent slopes	8.3	3.2%
HuB	Humbird sandy loam, 2 to 6 percent slopes	13.6	5.2%
MbB	Magnor silt loam, 1 to 6 percent slopes	5.0	1.9%
MIB	Meridian loam, 2 to 6 percent slopes	7.6	2.9%
PdD	Plainbo loamy sand, 12 to 20 percent slopes	46.7	17.9%
Rb	Rib silt loam, 0 to 2 percent slopes	0.1	0.0%
RpB	Rosholt loam, 2 to 6 percent slopes	5.1	2.0%
SdA	Scott Lake loam, 0 to 3 percent slopes	9.6	3.7%
SeB	Seaton silt loam, 2 to 6 percent slopes	1.9	0.7%
SeC2	Seaton silt loam, 6 to 12 percent slopes, eroded	21.2	8.1%
SeD2	Seaton silt loam, 12 to 25 percent slopes, eroded	4.0	1.5%
So	Shiffer loam, 0 to 2 percent slopes	12.5	4.8%
Totals for Area of Interest		261.3	100.0%

FIGURE 5: USDA, NRCS, SOIL SURVEY MAP SOIL TABLE



WDNR WETLAND MAP

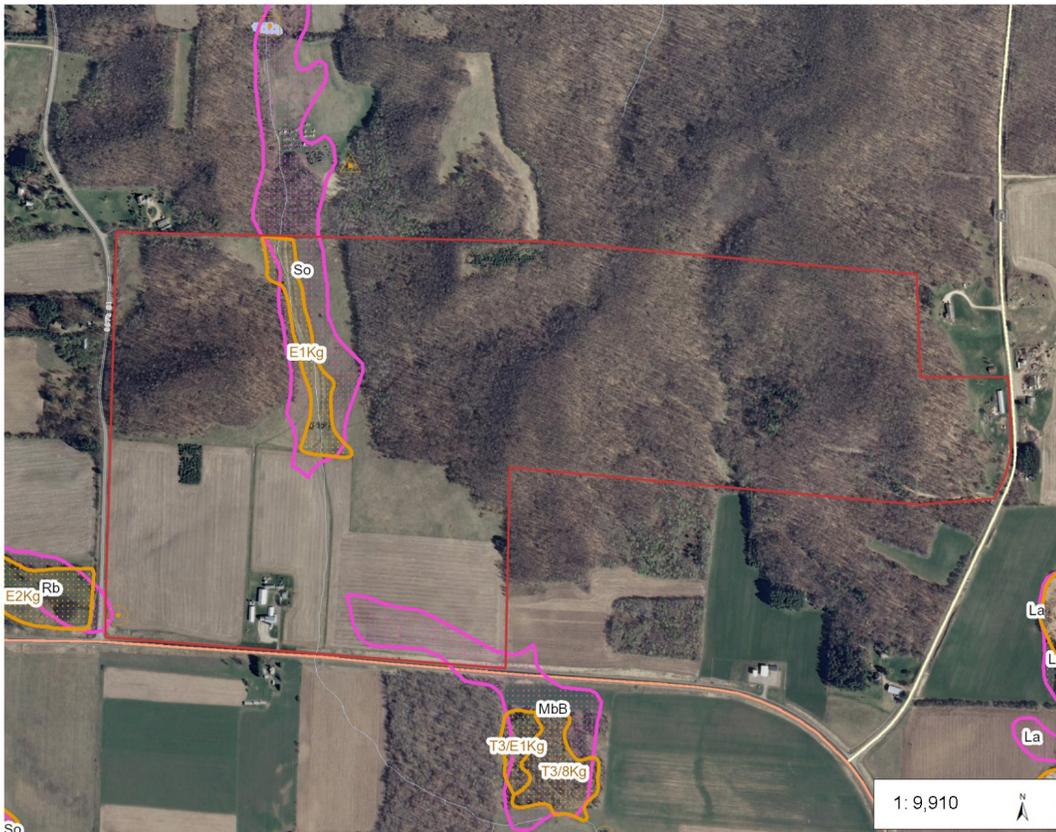


- Legend**
- Wetland Class Points**
 - Dammed pond
 - Excavated pond
 - Filled excavated pond
 - Filled/draind wetland
 - Wetland too small to delineate
 - Filled Points**
 - Wetland Class Areas**
 - Wetland
 - Upland
 - Filled Areas**
 - Rivers and Streams**
 - Open Water**
 - 2010 Air Photos (WROC)

Notes

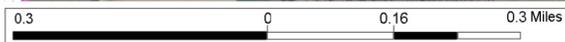


WDNR WETLAND AND WETLAND INDICATORS



- Legend**
- Wetland Class Points**
 - Dammed pond
 - Excavated pond
 - Filled excavated pond
 - Filled/draind wetland
 - Wetland too small to delineate
 - Filled Points**
 - Wetland Class Areas**
 - Wetland
 - Upland
 - Filled Areas**
 - NRCS Wetspots**
 - Wetland Indicators**
 - Rivers and Streams**
 - Open Water**
 - 2010 Air Photos (WROC)

Notes



DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this /map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal>

NAD_1983_HARN_Wisconsin_TM
© Latitude Geographics Group Ltd.

FIGURE 6: WDNR MAPS



U.S. Fish and Wildlife Service National Wetlands Inventory

Nov 9, 2014



This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands.Manneer.web.site

FIGURE 7: US FWS NATIONAL WETLAND INVENTORY MAP

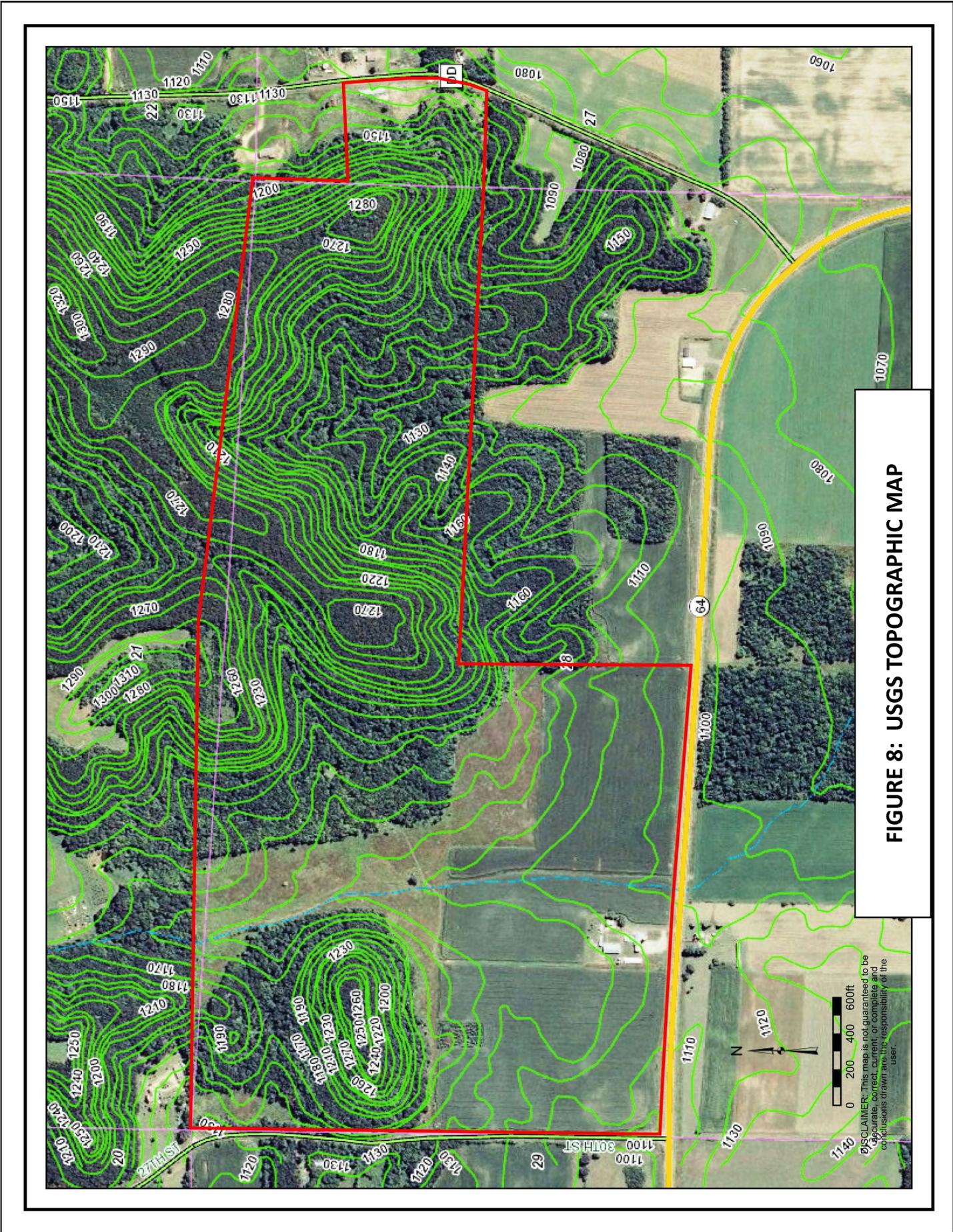
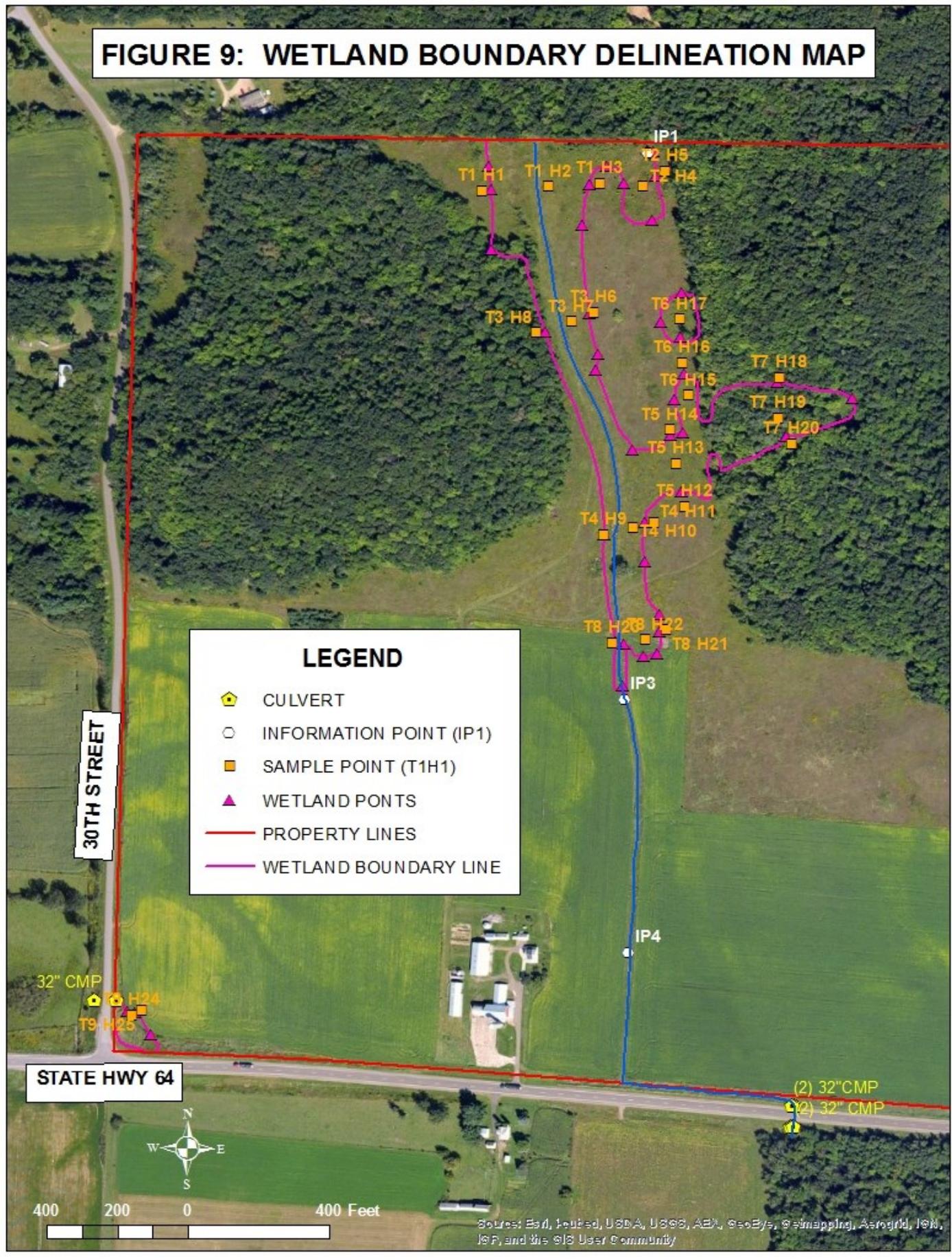


FIGURE 8: USGS TOPOGRAPHIC MAP

FIGURE 9: WETLAND BOUNDARY DELINEATION MAP



APPENDIX A: Delineation Data Sheets



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/15/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T1 H1
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
Slope (%): 4 Lat: 45°8'59.403"N Long: 91°37'14.511"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Humbird sandy loam, HuB NWI Classification: NONE
Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)

Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Rows include: Hydrophytic vegetation present? (N), Hydric soil present? (N), Indicators of wetland hydrology present? (N), and Is the sampled area within a wetland? (N).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Stratum, Plot size, Absolute % Cover, Dominant Species, Indicator Status. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators section.

Remarks: (Include photo numbers here or on a separate sheet)
UNDISTURBED, NOT GRAZED PASTURE AREA



Wisconsin Wetland Specialists

SOIL: Humbird sandy loam, HuB

Sampling Point: T1 H1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-12	10YR 3/3	65					SANDY LOAM	
	7.5YR 5/4	30						
	10YR 7/1	5						VISIBLE FINE SAND COLOR
12-18	7.5YR 4/3	70					LOAMY SAND	
	10YR 5/6	30						
18-25	10YR 5/6	100					SAND	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> N </u>
---	--

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
	<input type="checkbox"/> Surface Soil Cracks (B6)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
--	--

REMARKS: UNDISTURBED, NOT GRAZED PASTURE AREA.



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/15/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T1 H2
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): TOESLOPE, TS Local relief (concave, convex, none): NONE
Slope (%): 1 Lat: 45°8'59.58"N Long: 91°37'11.881"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Shiffer loam, So vWI Classification: PEMC

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (Y), 'Hydric soil present?' (Y), 'Indicators of wetland hydrology present?' (Y). Right column asks 'Is the sampled area within a wetland?' (Y) and 'f yes, optional wetland site ID:'.

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Stratum, Plot size, Absolute % Cover, Dominant Species, Indicator Status. Includes sections for Tree, Sapling/Shrub, Herb, and Woody vine strata. Also includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators.

Remarks: (Include photo numbers here or on a separate sheet)
No perigynia on the Carex. Assumed a FACW status.



Wisconsin Wetland Specialists

SOIL: Shiffer loam, So

Sampling Point: T1 H2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-12	10YR 3/1	95					LOAM	
	10YR 6/1	5						VISIBLE FINE SAND COLOR
12-21	7.5YR 5/1	60	5YR 5/8	40	C	M	LOAM	DISTINCT REDOX

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydic Soil Indicators:		Indicators for Problematic Hydic Soils:	
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydic soil present? <u>Y</u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	

Field Observations:	
Surface water present? Yes <u> </u> No <u>X</u> Depth (inches): _____	Indicators of wetland hydrology present? <u>Y</u>
Water table present? Yes <u>X</u> No <u> </u> Depth (inches): <u>10</u>	
Saturation present? Yes <u>X</u> No <u> </u> Depth (inches): <u>at surface</u>	

REMARKS: SAMPLE POINT LOCATED ABOUT 30FT FROM THE CHANNEL. CHANNEL HAD A BASE FLOW OF WATER ON THE DAY OF THE SURVEY. BASE FLOW WAS ABOUT 4 INCHES DEEP. THE CHANNEL WAS MEASURED TO HAVE A 13 FOOT TOP WIDTH, 5 FOOT BOTTOM WIDTH, AND 2 FEET DEEP. IT HAD RAINED THE PREVIOUS TWO NIGHTS.



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/15/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T1 H3
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): Backslope, BS Local relief (concave, convex, none): NONE
Slope (%): 6% Lat: 45°8'59.694"N Long: 91°37'9.825"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Mapped Shiffer loam, So. Should be Meridian loam, MIB. NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (N), 'Hydric soil present?' (N), 'Indicators of wetland hydrology present?' (N). Right side asks 'Is the sampled area within a wetland?' (N) and 'f yes, optional wetland site ID:'.

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data tables for Tree, Sapling/Shrub, and Herb stratum. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators. Results show 33.33% dominance and a prevalence index of 3.80. Hydrophytic vegetation is present (N).

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-10	7.5YR 4/4	60					SANDY SILT	SEE NOTES
	7.5YR 3/3	40						
10-15	7.5YR 5/6	60					SANDY LOAM	
	7.5YR 6/6	35						
	7.5YR 3/3	5						
15-21	7.5YR 5/6	60					GRAVELLY LOAMY	
	7.5YR 6/6	25						
	SEE NOTES	15						

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> N </u>
---	--

FEW COBBLES 1/2"X1/2" TO 1"X1" IN UPPER 10". 15 - 21" LAYER HAD COARSE AGGREGATES TO SMALL COBBLES TO SMALL ROCKS 1" X 3" IN LAYER

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
	<input type="checkbox"/> Surface Soil Cracks (B6)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
--	--



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/15/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T2 H4
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): Shoulder Frontslope, SH FS Local relief (concave, convex, none): NONE
Slope (%): 0 Lat: 45°8'59.632"N Long: 91°37'8.173"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Meridian loam, MIB NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (Y), 'Hydric soil present?' (Y), 'Indicators of wetland hydrology present?' (Y). Right side asks 'Is the sampled area within a wetland?' (Y) and 'f yes, optional wetland site ID:'.

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Stratum, Species, % Cover, Dominant Species, Indicator Status. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators section.

Remarks: (Include photo numbers here or on a separate sheet)
No perigynia on the Carex. Assumed a FACW status.



Wisconsin Wetland Specialists

SOIL: Meridian loam, MIB

Sampling Point: T2 H4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-4	10YR 3/2	90	7.5YR 4/8	7	C	PL/M	LOAM	DISTINCT REDOX
			10R 4/8	3	C	PL		
4-15	10YR 5/1	65	10R 4/8	25	C	PL/M	SANDY LOAM	DISTINCT REDOX
			10R 3/4	10	C	M		

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- Coast Prairie Redox (A16) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)

Secondary Indicators (minimum of two required)

- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)
- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

Field Observations:

Surface water present? Yes No Depth (inches): _____

Water table present? Yes No Depth (inches): 7

Saturation present? Yes No Depth (inches): at surface

(includes capillary fringe)

Indicators of wetland hydrology present? Y

STANDING WATER NEAR THIS AREA. AREA WAS A FLAT UPLAND HILLSIDE TERRACE. SUSPECT MAYBE A HILLSIDE SPRING AREA. JOHN (JACK) CLARK, LANDOWNER COMMENTED THAT THIS AREA WAS ALWAYS WET.



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/15/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T2 H5
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): BACKSLOPE, BS Local relief (concave, convex, none): NONE
Slope (%): 5% Lat: 45°9'0.072"N Long: 91°37'7.337"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Meridian, MIB NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances"
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Rows include: Hydrophytic vegetation present? N; Hydric soil present? N; Indicators of wetland hydrology present? N; Is the sampled area within a wetland? N; f yes, optional wetland site ID: _____

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data tables for Tree, Sapling/Shrub, Herb, and Woody vine stratum. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators. Results show 2 dominant tree species (Betula papyrifera, Quercus velutina) and 10 herb species. Prevalence Index is 3.83. Hydrophytic vegetation present? N.

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-7	10YR 4/3	95					SANDY LOAM	MANY FINE ROOTS
	10YR 7/1	5						VISIBLE FINE SAND COLOR
7-16	5YR 5/8	50					VERY COBBLY	
	SEE BELOW	50						SAND
16-24	5YR 5/8	50					VERY GRAVELLY	COARSE TO VERY COARSE
	SEE REMARKS	50						SAND

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators: <input type="checkbox"/> Histisol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils: <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (explain in remarks)
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*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____
 Remarks: _____



Hydric soil present? N

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:
 Surface water present? Yes _____ No X Depth (inches): _____
 Water table present? Yes _____ No X Depth (inches): _____
 Saturation present? Yes _____ No X Depth (inches): _____
 (includes capillary fringe)

Indicators of wetland hydrology present? N



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/15/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T3 H6
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): HILLSIDE BACKSLOPE, BS Local relief (concave, convex, none): NONE
Slope (%): 4-5% Lat: 45°8'56.07"N Long: 91°37'9.995"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Shiffer, So NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (N), 'Hydric soil present?' (N), and 'Indicators of wetland hydrology present?' (N). A summary question asks 'Is the sampled area within a wetland?' with answer 'N'.

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data tables for Tree, Sapling/Shrub, and Herb strata. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators. Herb stratum includes species like Bromus inermis, Poa pratensis, Erigeron annuus, Trifolium repens, Tanacetum vulgare, and Melilotus officinalis.

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-8	10YR 3/2	55					SILTY SAND	
	10YR 5/4	40						
	10YR 7/1	5						VISIBLE FINE SAND COLOR
8-16	10YR 5/4	95					LOAMY SAND	
	10YR 3/2	5						IN WORM CHANNELS
16-23	5YR 5/4	100					LOAMY SAND	FEW MEDIUM AGGREGATES

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> N </u>
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Remarks:
ROCKS AND COBBLES SCATTERED THROUGHOUT THE HOLE PROFILE. SIZE RANGED FROM VERY COURSE AGGREGATES TO 3"X3" ROCKS.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
	<input type="checkbox"/> Surface Soil Cracks (B6)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
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AREA PASTURED IN 2014.



Wisconsin Wetland Specialists

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/15/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T3 H7
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): TOESLOPE, TS Local relief (concave, convex, none): NONE
Slope (%): 0-1% Lat: 45°8'55.79"N Long: 91°37'10.881"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Shiffer, So NWI Classification: PEMC

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (Y), 'Hydric soil present?' (Y), 'Indicators of wetland hydrology present?' (Y), and 'Is the sampled area within a wetland?' (Y).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Stratum, Plot size, Absolute % Cover, Dominant Species, Indicator Status. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators section.

Remarks: (Include photo numbers here or on a separate sheet)
No perigynia on the Carex. Assumed a FACW status.



SOIL: Shiffer, So

Sampling Point: T3 H7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-8	10YR 3/2	80	2.5YR 2.5/4	20	C	PL/M	LOAM	DISTINCT REDOX
8-15	10YR 6/1	70	10YR 6/8	15	C	M	LOAM	DISTINCT REDOX
			5YR 5/8	15	C	PL/M		

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u>Y</u>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Surface Soil Cracks (B6)	
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input checked="" type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>at surface</u> (includes capillary fringe)	Indicators of wetland hydrology present? <u>Y</u>
---	--

SAMPLE POINT WAS ABOUT 32 FEET FROM CHANNEL. CHANNEL SIZE WAS 19 FOOT TOP WIDTH, 6 FOOT BOTTOM WIDTH, 2 1/2 FEET DEEP. BASE FLOW IN CHANNEL WAS 4 INCHES. THERE WAS SURFACE WATER PRESENT NEARBY.



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/15/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T3 H8
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
Slope (%): 3-4% Lat: 45°8'55.481"N Long: 91°37'12.265"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name: Shiffer loam, So NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (N), 'Hydric soil present?' (N), 'Indicators of wetland hydrology present?' (N). Right column asks 'Is the sampled area within a wetland?' (N) and 'f yes, optional wetland site ID:'.

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Stratum, Species, % Cover, Dominant Species, Indicator Status. Includes sections for Tree, Sapling/Shrub, Herb, and Woody vine strata. Also includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators.

Remarks: (Include photo numbers here or on a separate sheet)
No perigynia on the Carex. Assumed a FACW status.



Wisconsin Wetland Specialists

SOIL: Shiffer loam, So

Sampling Point: T3 H8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-3	10YR 3/2	90					SANDY LOAM	
	10YR 7/1	10						VISIBLE FINE SAND COLOR
3-14	10YR 5/6	100					LOAMY SAND	
14-22	10YR 5/8	100					SAND	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydic Soil Indicators:		Indicators for Problematic Hydic Soils:	
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydic soil present? <u> N </u>
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Remarks:
LOTS OF ROOTS. ROOTS TO BOTTOM OF HOLE.

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
<input type="checkbox"/> Water-Stained Leaves (B9)		

Field Observations:		Indicators of wetland hydrology present? <u> N </u>
Surface water present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water table present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/16/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T4 H9
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): FRONTSLOPE, FS Local relief (concave, convex, none): NONE
Slope (%): 2% Lat: 45°8'49.873"N Long: 91°37'9.472"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Shiffer loam, So NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (Y), 'Hydric soil present?' (N), 'Indicators of wetland hydrology present?' (N). Right column asks 'Is the sampled area within a wetland?' (N).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data tables for Tree, Sapling/Shrub, and Herb strata. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators. Dominance test shows 1 dominant species (A). Prevalence index is 3.50. Hydrophytic vegetation indicators are checked.

Remarks: (Include photo numbers here or on a separate sheet)



Wisconsin Wetland Specialists

SOIL: Shiffer loam, So

Sampling Point: T4 H9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-12	10YR 3/2	50					SANDY LOAM	
	101YR 5/4	45						
	10YR 7/1	5						VISIBLE FINE SAND COLOR
12-17	10YR 5/4	85	2.5YR 3/6	15	C	M	LOAMY SAND	
17-24	10YR 6/2	70	5YR 5/8	20	C	M	LOAMY SAND	
			2.5YR 3/6	10	C	M		

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydic Soil Indicators:		Indicators for Problematic Hydic Soils:	
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydic soil present? <u> N </u>
---	---

Remarks:
FEW COBBLES WERE SCATTERED THROUGH SOIL PROFILE. COBBLES RANGED IN SIZE FROM 1/4" TO 1/2". THERE WERE ALSO A FEW ROCKS ABOUT 1" TO 2" IN SIZE.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Surface Soil Cracks (B6)	
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input checked="" type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	
Surface water present? Yes <u> </u> No <u> X </u> Depth (inches): _____	Indicators of wetland hydrology present? <u> N </u>
Water table present? Yes <u> </u> No <u> X </u> Depth (inches): _____	
Saturation present? Yes <u> X </u> No <u> </u> Depth (inches): <u> 24 </u>	
(includes capillary fringe)	

RAINED TWO NIGHTS BEFORE THE INFORMATION FOR THIS SAMPLE POINT WAS TAKEN.



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/16/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T4 H10
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): TOESLOPE, TS Local relief (concave, convex, none): NONE
Slope (%): 0-1% Lat: 45°8'50.115"N Long: 91°37'8.268"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Shiffer loam, So NWI Classification: PEMC

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (Y), 'Hydric soil present?' (Y), 'Indicators of wetland hydrology present?' (Y), and 'Is the sampled area within a wetland?' (Y).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Stratum, Plot size, Absolute % Cover, Dominant Species, Indicator Status. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators.

Remarks: (Include photo numbers here or on a separate sheet)
No perigynia on the Carex. Assumed a FACW status. Also present nearby were Persicaria hydropiper, Lycopodium americanum, Epilobium sp.



Wisconsin Wetland Specialists

SOIL: Shiffer loam, So

Sampling Point: T4 H10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-4	10YR 3/2	80	2.5YR 2.5/4	20	C	PL/M	LOAM	DISTINCT REDOX
4-18	10YR 5/2	70	5YR 5/8	30	C	M	LOAM	DISTINCT REDOX

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u>Y</u>
Remarks: _____	

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Surface Soil Cracks (B6)	
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input checked="" type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>9</u> Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>at surface</u> (includes capillary fringe)	Indicators of wetland hydrology present? <u>Y</u>
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WATER FILLED HOLE TO 12 INCHES WHILE IT WAS OPEN.



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/16/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T4 H11
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): HILLSIDE BACKSLOPE, BS Local relief (concave, convex, none): NONE
Slope (%): 4-5% Lat: 45°8'50.276"N Long: 91°37'7.485"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Shiffer loam, So NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (N), 'Hydric soil present?' (N), 'Indicators of wetland hydrology present?' (N), and 'Is the sampled area within a wetland?' (N).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data tables for Tree, Sapling/Shrub, Herb, and Woody vine strata. Includes columns for species name, % cover, dominant species, and indicator status. Also includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators section.

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-9	10YR 3/2	65					SILTY LOAM	
	10YR 5/6	30						
	10YR 7/1	5						VISIBLE FINE SAND COLOR
9-16	10YR 5/4	50					LOAMY SAND	
	10YR 5/8	50						
16-23	10YR 5/8	85					GRAVELLY SAND	
	SEE REMARKS	15						GRAVEL

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> N </u>
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Remarks:
FEW ROCKS SCATTERED THROUGH PROFILE. ROCKS SIZE RANGED FROM 1" TO 1 1/2".

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
	<input type="checkbox"/> Surface Soil Cracks (B6)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
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Wisconsin Wetland Specialists

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/16/2014
 Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T5 H12
 Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
 Landform (hillslope, terrace, etc.): HILLSIDE BACKSLOPE, BS Local relief (concave, convex, none): NONE
 Slope (%): 3-5% Lat: 45°8'50.721"N Long: 91°37'6.286"W Datum: NAD83-CORS96, WI Central
 Soil Map Unit Name Humbird sandy loam, HuB NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances" present? Yes
 Are vegetation , soil , or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	<u>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____
Hydric soil present?	<u>N</u>	
Indicators of wetland hydrology present?	<u>N</u>	

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Tree Stratum	(Plot size: <u>30FT RADIUS</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across all Strata: <u>3</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)
1	_____	_____	_____	_____	
2	_____	_____	_____	_____	
3	_____	_____	_____	_____	
4	_____	_____	_____	_____	
5	_____	_____	_____	_____	
		<u>0</u>	= Total Cover		Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>2</u> x 2 = <u>4</u> FAC species <u>6</u> x 3 = <u>18</u> FACU species <u>81</u> x 4 = <u>324</u> UPL species <u>4</u> x 5 = <u>20</u> Column totals <u>93</u> (A) <u>366</u> (B) Prevalence Index = B/A = <u>3.94</u>
Sapling/Shrub stratum	(Plot size: <u>15FT RADIUS</u>)				
1	_____	_____	_____	_____	
2	_____	_____	_____	_____	
3	_____	_____	_____	_____	
4	_____	_____	_____	_____	
5	_____	_____	_____	_____	
		<u>0</u>	= Total Cover		
Herb stratum	(Plot size: <u>5FT RADIUS</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ?3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) <small>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</small>
1	<u>Phleum pratense</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	
2	<u>Bromus inermis</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	
3	<u>Trifolium repens</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
4	<u>Poa pratensis</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
5	<u>Arabis lyrata</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	
6	<u>Hieracium aurantiacum</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	
7	<u>Solidago gigantea</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
8	<u>Potentilla simplex</u>	<u>1</u>	<u>N</u>	<u>FACU</u>	
9	<u>Prunella vulgaris</u>	<u>1</u>	<u>N</u>	<u>FAC</u>	
10	<u>Symphotrichum oolentangiense</u>	<u>1</u>	<u>N</u>	_____	
		<u>94</u>	= Total Cover		
Woody vine stratum	(Plot size: <u>30FT RADIUS</u>)				Hydrophytic vegetation present? <u>N</u>
1	_____	_____	_____	_____	
2	_____	_____	_____	_____	
		<u>0</u>	= Total Cover		

Remarks: (Include photo numbers here or on a separate sheet)



Wisconsin Wetland Specialists

SOIL: Humbird sandy loam, HuB

Sampling Point: T5 H12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-11	10YR 3/2	60					SILTY LOAM	
	10YR 5/4	35						
	10YR 7/1	5						VISIBLE FINE SAND COLOR
11-18	10YR 5/8	50					LOAMY SAND	FEW 1/2" GRAVELS
	5YR 4/6	50						
18-22	5YR 5/6	90					SANDY LOAM	
	SEE REMARKS	10						0% GRAVELS

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric soil present? N

Remarks:
 FEW LARGER ROCKS SCATTERED IN PROFILE. ROCKS WERE 2" TO 3" IN SIZE.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
	<input type="checkbox"/> Surface Soil Cracks (B6)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes _____	No <u> X </u>	Depth (inches): _____
Water table present?	Yes _____	No <u> X </u>	Depth (inches): _____
Saturation present? (includes capillary fringe)	Yes _____	No <u> X </u>	Depth (inches): _____

Indicators of wetland hydrology present? N



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/16/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T5 H13
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): SEDGE MEADOW Local relief (concave, convex, none): NONE
Slope (%): 0-1% Lat: 45°8'51.895"N Long: 91°37'6.652"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Shiffer loam, So NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (Y), 'Hydric soil present?' (Y), 'Indicators of wetland hydrology present?' (Y), and 'Is the sampled area within a wetland?' (Y).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Tree Stratum, Sapling/Shrub stratum, Herb stratum, Woody vine stratum, Absolute % Cover, Dominant Species, Indicator Status. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators.

Remarks: (Include photo numbers here or on a separate sheet)
No perignia on the Carex. Assumed a FACW status.



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-7	10YR 3/2	70	2.5YR 2.5/4	30	C	PL/M	LOAM	
7-16	10YR 6/2	70	5YR 5/8	15	C	M	LOAM	DISTINCT REDOX
			5YR 6/6	15	C	M		
16-22	10YR 6/2	60	5YR 5/8	20	C	M	LOAM	DISTINCT REDOX
			5YR 6/6	20	C	M		

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u>Y</u>
Remarks: _____	

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Surface Soil Cracks (B6)	
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input checked="" type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u> Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>at surface</u> (includes capillary fringe)	Indicators of wetland hydrology present? <u>Y</u>
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WHILE HOLE REMAINED OPENED, THE WATER LEVEL ROSE TO 15 INCHES. THE SAMPLE POINT IS IN A SEDGE MEADOW WHICH IS DRAINAGEWAY FOR UPLAND STORMWATER RUNOFF. THE DIFFERENCE IN VEGETATION IN THIS AREA CAN BE SEEN ON VARIOUS AERIAL PHOTOS.



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/16/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T5 H14
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): HILLSIDE SHOULDER, SH Local relief (concave, convex, none): NONE
Slope (%): 2 Lat: 45°8'52.867"N Long: 91°37'6.907"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Shiffer loam, So NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes
SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Rows include: Hydrophytic vegetation present? (N), Hydric soil present? (N), Indicators of wetland hydrology present? (N), and Is the sampled area within a wetland? (N).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Stratum, Plot size, Absolute % Cover, Dominant Species, Indicator Status. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators section.

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-9	10YR 3/2	50					SILTY LOAM	
	10YR 5/4	45						
	10YR 7/1	2						VISIBLE FINE SAND COLOR
	SEE REMARKS	3					LOAMY SAND	VERY COARSE AGGREGATE
9-17	10YR 5/8	100						
17-23	5YR 5/8	50					LOAMY SAND	
	10YR 5/8	45						
	GRAVELS	5						

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> N </u>
Remarks: _____ _____ _____	

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
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WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/16/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T6 H15
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): BOTTOM OF A SWALE Local relief (concave, convex, none): CONCAVE
Slope (%): 1% Lat: 45°8'53.819"N Long: 91°37'6.237"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Meridian loam, MIB NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (Y), 'Hydric soil present?' (Y), 'Indicators of wetland hydrology present?' (Y), and 'Is the sampled area within a wetland?' (Y).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Main data table with columns: Stratum, Species, Absolute % Cover, Dominant Species, Indicator Status. Includes sub-sections for Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators.

Remarks: (Include photo numbers here or on a separate sheet)
No perigynia on the Carex. Assumed a FACW status.



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-10	10YR 3/2	45	2.5YR 3/6	25	C	PL/M	SILT LOAM	DISTINCT REDOX
	10YR 5/4	30						
10-16	10YR 5/4	70	5YR 5/8	30	C	M	LOAM	FAINT
16-23	10YR 5/4	70	5YR 5/8	30	C	M	LOAM	DISTINCT REDOX

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydic Soil Indicators:	Indicators for Problematic Hydic Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydic soil present? <u>Y</u>
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Remarks:
 FOUND A GRAVEL LAYER AT THE BOTTOM OF THE HOLE. ALSO FOUND A FEW ROCKS SCATTERED IN THE UPPER PROFILE.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Surface Soil Cracks (B6)	
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input checked="" type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u> Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u> (includes capillary fringe)	Indicators of wetland hydrology present? <u>Y</u>
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WATER WAS SEEPING THROUGH THE SIDE OF THE HOLE. WATER LEVEL IN HOLE ROSE TO 18" BEFORE IT WAS REFILLED. THE SAMPLE POINT WAS LOCATED IN A SWALE OR DRAINAGEWAY FOR SURFACE WATER RUNOFF.



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/16/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T6 H16
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): HILLSIDE BACKSLOPE, BS Local relief (concave, convex, none): NONE
Slope (%): 2-3% Lat: 45°8'54.759"N Long: 91°37'6.491"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Meridian loam, MIB NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Rows include: Hydrophytic vegetation present? (Y), Hydric soil present? (N), Indicators of wetland hydrology present? (N), and Is the sampled area within a wetland? (N).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Tree Stratum, Sapling/Shrub stratum, Herb stratum, Woody vine stratum, Absolute % Cover, Dominant Species, Indicator Status, Dominance Test Worksheet, Prevalence Index Worksheet, Hydrophytic Vegetation Indicators, and Hydrophytic vegetation present? (Y).

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-10	10YR 3/2	50					SILT LOAM	
	10YR 5/6	45						
	10YR 7/1	5						VISIBLE FINE SAND COLOR
10-15	10YR 5/8	100					LOAMY SAND	
15-23	7.5YR 5/8	60					LOAMY SAND	
	10YR 4/4	40						5% VERY COARSE
	SEE REMARKS	5						AGGREGATES

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> N </u>
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Remarks:
SCATTERED IN PROFILE WERE ROCKS RANGING IN SIZE FROM 2" TO 4".

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
	<input type="checkbox"/> Surface Soil Cracks (B6)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
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WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/16/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T6 H17
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): DEPRESSIONAL AREA Local relief (concave, convex, none): CONCAVE
Slope (%): 0-1% Lat: 45°8'55.957"N Long: 91°37'6.585"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Meridian loam, MIB NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (Y), 'Hydric soil present?' (Y), 'Indicators of wetland hydrology present?' (Y), and 'Is the sampled area within a wetland?' (Y).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. IT RAINED 0.52" ON THE 13TH AND 0.43" ON THE 14TH. FIELD DATA WAS COLLECTED ON THE 15TH AND 16TH. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Stratum, Species, % Cover, Dominant Species, Indicator Status. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators.

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Table with columns: Depth (Inches), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type*, Loc**), Texture, Remarks. Rows include depth intervals 0-2, 2-12, 12-18, 18-23 and a 'SEE REMARKS' row with 2% SMALL GRAVEL.

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators and Indicators for Problematic Hydric Soils. Lists various soil indicators with checkboxes (e.g., Histisol, Sandy Gleyed Matrix, Coast Prairie Redox) and a note about hydrophytic vegetation.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____ Hydric soil present? Y

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Table with columns: Primary Indicators (minimum of one is required; check all that apply) and Secondary Indicators (minimum of two required). Lists indicators like Surface Water, High Water Table, Saturation, etc.

Field Observations: Surface water present? Yes No X Depth (inches): Water table present? Yes X No Depth (inches): Saturation present? Yes X No Depth (inches): Indicators of wetland hydrology present? Y

WHILE HOLE WAS LEFT OPEN, WATER FILLED THE HOLE TO 12 INCHES OF SURFACE. THE SAMPLE POINT WAS IN A DEPRESSIONAL AREA THAT SERVES AS A DRAINAGEWAY FOR UPLAND SURFACE WATER RUNOFF.



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/31/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T7 H18
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): HILLSIDE BACKSLOPE, BS Local relief (concave, convex, none): NONE
Slope (%): 4-6% Lat: 45°8'54.384"N Long: 91°37'2.634"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Humbird sandy loam, HuB NWI Classification:

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Rows include: Hydrophytic vegetation present? N; Hydric soil present? N; Indicators of wetland hydrology present? N; Is the sampled area within a wetland? N; f yes, optional wetland site ID:

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. THE RAINFALL FOR OCTOBER WAS NORMAL. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Tree Stratum, Sapling/Shrub stratum, Herb stratum, Woody vine stratum. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators.

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-4	10YR 3/2	90					SILT	
	10YR 7/1	10						VISIBLE FINE SAND COLOR
4-12	7.5YR 4/4	90					LOAMY SAND	
	10YR 7/1	10						VISIBLE FINE SAND COLOR
12-18	7.5YR 5/4	97					SILTY SAND	3 % FINE TO COARSE
	SEE REMARKS	3						AGGREGATES
18-23	7.5YR 4/6	100					SAND	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils:	
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> N </u>
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Remarks:
ROOTS THROUGHOUT SOIL PROFILE. FEW COBBLES THROUGHOUT SOIL PROFILE.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	

Field Observations:			
Surface water present?	Yes _____ No <u> X </u>	Depth (inches): _____	Indicators of wetland hydrology present? <u> N </u>
Water table present?	Yes _____ No <u> X </u>	Depth (inches): _____	
Saturation present? (includes capillary fringe)	Yes _____ No <u> X </u>	Depth (inches): _____	



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/31/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T7 H19
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): DRAINAGEWAY TOESLOPE Local relief (concave, convex, none): NONE
Slope (%): 1% Lat: 45°8'53.238"N Long: 91°37'2.632"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Humbird sandy loam, HuB NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Rows include: Hydrophytic vegetation present? (Y), Hydric soil present? (Y), Indicators of wetland hydrology present? (Y), and Is the sampled area within a wetland? (Y).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. THE RAINFALL FOR OCTOBER WAS NORMAL. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Tree Stratum, Sapling/Shrub stratum, Herb stratum, Woody vine stratum, Absolute % Cover, Dominant Species, Indicator Status, Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators.

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-4	10YR 2/1	100					LOAM	
4-12	10YR 5/1	75	5YR 5/6	20	C	M	LOAM	DISTINCT REDOX
			2.5YR 3/6	5	C	M		
12-16	10YR 5/1	70	5YR 5/6	20	C	M	LOAM	DISTINCT REDOX
			10R 4/8	10	C	M		

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u>Y</u>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
	<input type="checkbox"/> Surface Soil Cracks (B6)
	<input checked="" type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input checked="" type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u> Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>at surface</u> (includes capillary fringe)	Indicators of wetland hydrology present? <u>Y</u>
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SHALLOW ROOTED PLANTS. AREA HAD SURFACE WATER SEEN ON 10/15 & 16/2014



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/31/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T7 H20
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): HILLSIDE BACKSLOPE, BS Local relief (concave, convex, none): NONE
Slope (%): 2-3% Lat: 45°8'52.538"N Long: 91°37'2.097"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Humbird sandy loam, HuB NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Rows include: Hydrophytic vegetation present? N; Hydric soil present? N; Indicators of wetland hydrology present? N; Is the sampled area within a wetland? N; f yes, optional wetland site ID: _____

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. THE RAINFALL FOR OCTOBER WAS NORMAL. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Tree Stratum, Sapling/Shrub stratum, Herb stratum, Woody vine stratum. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators. Results show 70% total cover for trees, 32% for saplings, 30% for herbs, and 0% for woody vines. Dominance test and prevalence index are also calculated.

Remarks: (Include photo numbers here or on a separate sheet)



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/31/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T8 H21
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): HILLSIDE BACKSLOPE, BS Local relief (concave, convex, none): NONE
Slope (%): 3-4% Lat: 45°8'47.283"N Long: 91°37'6.916"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Humbird sandy loam, HuB NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (N), 'Hydric soil present?' (N), 'Indicators of wetland hydrology present?' (N). Right side: 'Is the sampled area within a wetland?' (N), 'f yes, optional wetland site ID:'

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. THE RAINFALL FOR OCTOBER WAS NORMAL. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Tree Stratum, Sapling/Shrub stratum, Herb stratum, Woody vine stratum. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators section.

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-9	10YR 3/2	70					SILT LOAM	
	10YR 5/4	20						
	10YR 7/1	10						VISIBLE FINE SAND COLOR
9-16	10YR 4/6	60					SANDY LOAM	
	5YR 5/8	40						
16-23	2.5YR 4/8	70					SANDY LOAM	
	5YR 5/8	30						

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils:	
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> N </u>
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Remarks:
1" TO 4" ROCKS SCATTERED THROUGHOUT SOIL PROFILE.

HYDROLOGY

Wetland Hydrology Indicators:	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Surface Soil Cracks (B6)	
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:		Indicators of wetland hydrology present? <u> N </u>
Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	Depth (inches): _____	
Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	Depth (inches): _____	
Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X	Depth (inches): _____	
(includes capillary fringe)		



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/31/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T8 H22
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): HILLSIDE FRONTSLOPE, FS Local relief (concave, convex, none): NONE
Slope (%): 1% Lat: 45°8'46.962"N Long: 91°37'7.694"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Humbird sandy loam, HuB NWI Classification: PEMC

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation X, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

Table with 2 columns: Question and Answer. Questions include 'Hydrophytic vegetation present?' (Y), 'Hydric soil present?' (Y), 'Indicators of wetland hydrology present?' (Y), and 'Is the sampled area within a wetland?' (Y).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. THE RAINFALL FOR OCTOBER WAS NORMAL. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Tree Stratum, Sapling/Shrub stratum, Herb stratum, Woody vine stratum, Absolute % Cover, Dominant Species, Indicator Status. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators.

Remarks: (Include photo numbers here or on a separate sheet)
Vegetation is considered disturbed because this area was tilled but not planted to crops due to wetness.



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-8	10YR 3/2	90	10R 4/8	10	C	PL/M	LOAM	DISTINCT REDOX
8-14	10YR 5/1	70	5YR 5/8	30	C	M	LOAM	DISTINCT REDOX
14-18	10YR 6/1	60	5YR 5/8	40	C	M	CLAY LOAM	DISTINCT REDOX
18-23	10YR 6/1	60	5YR 5/8	40	C	M	LOAMY SAND	DISTINCT REDOX

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils:	
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: <u>CLAY LOAM</u> Depth (inches): <u>14-18"</u>	Hydric soil present? <u>Y</u>
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Remarks:
1" TO 4" ROCKS SCATTERED THROUGHOUT SOIL PROFILE.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	

Field Observations: Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u> Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u> (includes capillary fringe)	Indicators of wetland hydrology present? <u>Y</u>
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SAMPLE POINT IS IN AN AREA THAT APPEARS TO BE INTERNALLY DRAINED. PHOTO IN REPORT SHOW AREA WHERE SPARSELY VEGETATIVE DUE TO WATER PONDING. AREA WAS NOT ABLE TO BE PLANTED TO CORN LIKE THE REST OF THE FIELD. SOME OF THE CORN ON THE EDGES OF THIS AREA WERE STUNTED.



Wisconsin Wetland Specialists

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/31/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T8 H23
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): HILLSIDE BACKSLOPE, BS Local relief (concave, convex, none): NONE
Slope (%): 3% Lat: 45°8'46.878"N Long: 91°37'9.055"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Shiffer loam, So NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation X, soil, or hydrology significantly disturbed? Are "normal circumstances"
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Rows include: Hydrophytic vegetation present? N; Hydric soil present? N; Indicators of wetland hydrology present? N; Is the sampled area within a wetland? N; f yes, optional wetland site ID: _____

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. THE RAINFALL FOR OCTOBER WAS NORMAL. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Complex table with columns for Tree Stratum, Sapling/Shrub stratum, Herb stratum, Woody vine stratum, and Dominance Test Worksheet. Includes rows for species like Zea mays, Taraxacum officinale, and Erigeron annuus, and calculations for dominance and prevalence indices.

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-10	10YR 3/3	68	2.5YR 2.5/4	2			SANDY LOAM	FAINT REDOX
	7.5YR 5/4	30						TILLED LAYER
10-16	5YR 5/8	80					LOAMY SAND	
	10YR 3/3	20						
16-23	2.5YR 4/8	50					SAND	
	5YR 5/8	46						
	SEE REMARKS	4						4% GRAVEL

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____ Remarks: _____	Hydric soil present? <u> N </u>
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HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
	<input type="checkbox"/> Surface Soil Cracks (B6)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
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SAMPLE POINT IS IN A CORN CROPFIELD.



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/31/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T9 H24
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): TOESLOPE, TS Local relief (concave, convex, none): NONE
Slope (%): 0-1% Lat: 45°8'36.221"N Long: °37'27.667"W 45°8'36.221" Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Rib silt loam, Rb NWI Classification: PEMC

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation X, soil, or hydrology significantly disturbed? Are "normal circumstances"
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Rows include: Hydrophytic vegetation present? (Y), Hydric soil present? (Y), Indicators of wetland hydrology present? (Y), and Is the sampled area within a wetland? (Y).

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. THE RAINFALL FOR OCTOBER WAS NORMAL. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Stratum, Plot size, Absolute % Cover, Dominant Species, Indicator Status. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators.

Remarks: (Include photo numbers here or on a separate sheet)
Corn stunted. Refer to report for aerial photo review of this area.



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-4	10YR 3/2	97	10R 4/8	3	C	M	SANDY LOAM	DISTINCT REDOX
4-12	10YR 3/2	75	2.5YR 3/6	5	C	M	LOAMY SAND	DISTINCT REDOX
	10YR 5/8	20						
12-16	10R 4/6	65	7.5R 3/8	5	C	M	CLAYEY SAND	DISTINCT REDOX
	10YR 5/1	30						
16-23	10YR 4/1	70	2.5YR 2.5/4	20	C	PL/M	LOAMY SAND	DISTINCT REDOX
			10R 4/8	10	C	M		

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u>Y</u>
Remarks: _____ _____ _____	

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input checked="" type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations: Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u> Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>at surface</u> (includes capillary fringe)	Indicators of wetland hydrology present? <u>Y</u>
--	--

SAMPLE POINT IS IN A CORN CROPFIELD AT THE TOE OF THE SLOPE. SEEP SEEN AT 12 INCHES. CORN PLANTS WERE STUNTED IN THIS AREA. AERIAL PHOTOS DO SHOW PLANT DIFFERENT IN THIS AREA. REFER TO APPENDIX B IN REPORT.



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site DRT SAND INC/CLARK PROPERTY City/County: BLOOMER/CHIPPEWA Sampling Date: 10/31/2014
Applicant/Owner: DRT SANDS INC State: WI Sampling Point: T9 H25
Investigator(s): Maria Scholze & John Scholze Section, Township, Range: T31N, R10W SECTION 28
Landform (hillslope, terrace, etc.): HILLSIDE BACKSLOPE, BS Local relief (concave, convex, none): NONE
Slope (%): 3% Lat: 45°8'36.376"N Long: 91°37'27.263"W Datum: NAD83-CORS96, WI Central
Soil Map Unit Name Arland sandy loam, ApC2 NWI Classification: NONE

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
Are vegetation X, soil, or hydrology significantly disturbed? Are "normal circumstances" present? Yes
Are vegetation, soil, or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Table with 2 columns: Question and Answer. Rows include: Hydrophytic vegetation present? N, Hydric soil present? N, Indicators of wetland hydrology present? N, Is the sampled area within a wetland? N, f yes, optional wetland site ID:.

ANTECEDENT MOISTURE CONDITIONS FOR THE 3 MONTHS PRIOR TO THE DELINEATION WAS DETERMINED TO BE WETTER THAN NORMAL. THE RAINFALL FOR OCTOBER WAS NORMAL. REFER TO REPORT FOR MORE DETAILS.

VEGETATION -- Use scientific names of plants.

Vegetation data table with columns: Tree Stratum, Sapling/Shrub stratum, Herb stratum, Woody vine stratum, Absolute % Cover, Dominant Species, Indicator Status. Includes Dominance Test Worksheet, Prevalence Index Worksheet, and Hydrophytic Vegetation Indicators.

Remarks: (Include photo numbers here or on a separate sheet)



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-9	10YR 3/2	95					SANDY LOAM	
	10YR 7/1	5						VISIBLE FINE SAND COLOR
9-15	2.5YR 4/8	60					GRAVELLY SAND	
	SEE REMARKS	40						GRAVELS
15-22	GRAVEL	80					SANDY GRAVEL	
	2.5YR 4/8	20						

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators: <input type="checkbox"/> Histisol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)		Indicators for Problematic Hydric Soils: <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (explain in remarks)	
				*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic	

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> N </u>
Remarks: _____	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)	<input type="checkbox"/> FAC-Neutral Test (D5)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					
<input type="checkbox"/> Water-Stained Leaves (B9)					

Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
--	--

SAMPLE POINT IS IN A CORN CROPFIELD.

APPENDIX B: USDA NRCS WETS TABLE

WETS Station : BLOOMER, WI0904
 State FIPS/County(FIPS): 55017

Creation Date: 11/09/2014
 County Name: Chippewa 1971-2000

Month	Temperature (Degrees F.)				Precipitation (Inches)				
	-----				-----				
	avg daily max	avg daily min	avg	avg	avg	30% chance will have		avg	avg
						less than	more than	# of days w/.1 or more	total snow fall
January	19.9	-0.1	9.9	1.00	0.49	1.22	3	12.8	
February	26.7	6.3	16.5	0.73	0.33	0.90	2	6.4	
March	38.9	19.7	29.3	1.80	0.98	2.20	4	7.5	
April	55.4	32.8	44.1	2.79	1.87	3.34	6	1.2	
May	68.8	44.6	56.7	3.54	2.39	4.23	7	0.0	
June	78.0	54.0	66.0	4.54	3.15	5.41	8	0.0	
July	82.4	58.7	70.6	3.81	2.56	4.56	8	0.0	
August	79.6	56.5	68.1	5.02	3.51	5.97	7	0.0	
September	70.0	47.1	58.6	3.81	2.45	4.59	7	0.0	
October	57.5	35.6	46.6	2.32	1.40	2.81	5	0.3	
November	39.1	22.3	30.7	2.10	1.12	2.56	4	5.2	
December	24.3	7.0	15.7	1.03	0.58	1.25	3	10.0	

yr	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	annl
1981	0.01	2.14	1.10	4.26	2.63	4.57	2.59	4.80	2.72	3.13	1.01	0.74	29.70
1982	2.06	0.32	2.06	3.45	3.61	2.75	3.45	4.92	4.82	4.37	3.15	2.60	37.56
1983	1.23	0.61	1.77	2.36	4.76	2.19	6.68	7.72	4.74	2.36	4.13	0.96	39.51
1984	0.61	1.85	1.02	3.73	2.80	4.19	4.51	4.67	3.97	4.72	1.07	2.33	35.47
1985	0.29	0.64	2.73	2.42	1.55	2.58	2.50	5.61	5.51	2.62	2.68	1.05	30.18
1986	0.43	0.95	1.74	4.69	3.39	4.15	6.10	4.68	10.84	2.96	0.85	0.27	41.05
1987	0.56	0.00	0.58	0.78	4.51	2.62	7.14	4.63	2.70	2.30	2.23	1.03	29.08
1988	0.52	0.07	M1.24	1.79	1.27	1.02	1.30	3.63	4.95	0.97	3.10	1.13	20.99
1989	0.53	0.29	1.70	1.38	5.96	3.78	5.28	5.54	2.08	0.84	1.46	0.20	29.04
1990	0.91	0.65	3.50	3.31	5.04	11.91	3.49	9.86	2.21	2.06	0.78	0.90	44.62
1991	0.36	0.82	3.11	3.55	5.90	2.91	3.54	2.45	M5.14	M4.10	M5.05	M0.87	37.80
1992	M0.54	M0.64	M2.06	M3.88	M2.42	2.72	3.54	1.72	3.55	3.52	2.86	1.19	28.64
1993	0.77	0.25	0.78	3.62	5.06	6.18	3.54	4.33	2.70	1.31	1.24	0.54	30.32
1994	0.86	0.55	0.13	5.34	1.40	3.79	2.85	4.92	2.93	1.38	2.11	0.53	26.79
1995	0.35	0.34	3.08	2.24	2.92	2.75	3.52	11.64	2.23	4.39	M1.21	1.11	35.78
1996	3.14	0.44	1.34	1.36	3.03	4.33	2.94	1.65	2.57	3.89	4.10	1.66	30.45
1997	2.10	0.06	1.44	0.52	3.08	4.86	5.82	2.79	3.44	2.10	0.73	0.18	27.12
1998	1.42	1.95	M3.49	M1.37	4.20	4.30	1.00	4.13	2.40	1.45	1.42	0.49	27.62
1999	1.16	0.98	0.50	4.07	6.51	2.52	5.40	3.19	1.02	0.82	0.96	0.29	27.42
2000	1.41	0.99	0.97	M1.54	2.79	6.69	5.90	3.01	6.04	0.90	3.21	1.00	34.45
2001	M1.18	1.16	0.74	5.12	4.20	7.12	3.90	3.65	2.88	1.68	2.65	1.19	35.47
2002	0.58	1.34	2.75	4.04	2.31	8.77	3.47	5.14	5.91	4.09	0.09	0.78	39.27
2003	0.11	0.71	1.58	3.92	5.52	4.56	3.80	0.20	2.59	1.29	1.68	0.69	26.65
2004	0.42	2.21	2.57	1.86	5.78	1.17	1.96	4.00	2.97	4.07	1.19	0.93	29.13
2005	2.92	0.90	1.46	1.42	1.92	5.12	2.34	2.92	4.06	1.56	2.93	M0.64	28.19
2006	0.68	0.30	2.09	1.80	2.11	1.40	2.65	5.10	2.25	M0.81	1.29	1.51	21.99
2007	0.73	0.45	1.54	1.10	3.12	2.13	4.54	5.50	4.64	7.71	0.07	1.64	33.17
2008	0.57	0.83	0.65	5.65	2.92	4.92	5.63	2.20	2.78	1.62	0.86	1.89	30.52
2009	0.43	0.66	0.80	2.48	1.64	2.96	1.20	6.08	0.92	5.17	0.50	1.77	24.61
2010	0.87	0.36	0.63	2.90	2.67	4.50	5.73	5.63	7.50	1.86	1.88	1.87	36.40
2011	M0.83	1.05	2.45	M2.13	M2.58	2.73	M8.84	2.70	1.39	1.15	M0.60	1.09	27.54
2012	M0.62	1.33	M1.47	M2.56	4.42	5.00	3.09	M2.28	M0.98	2.43	0.38	1.33	25.89
2013	1.36	1.31	1.86	4.40	5.08	5.85	1.41	1.28	2.09	4.10	1.27	1.86	31.87
2014	0.95	1.44	0.76	4.65	4.29	10.28	2.97	6.65	5.57	2.31	M0.67		40.54

WETLAND DOCUMENTATION NRCS AERIAL REVIEW RECORD

Project Name: DTR SANDS INC/JOHN & MARIE CLARK			Date: 10/30/2014
Investigator: Maria Scholze, WISCONSIN WETLAND SPECIALISTS			City/County: BLOOMER/CHIPPEWA
Weather Station: BLOOMER, WI W10904			Location: T31N R10 SECTION 28
YEAR	CLIMATE*	PASTURE FIELD	CROPFIELD
1981	NORMAL	N	Y (BY PASTURE LINE)
1982	NORMAL	N	Y (BY PASTURE LINE)
1983	NORMAL	BAD SLIDE	BAD SLIDE
1984	NORMAL	N	N
1985	DRY	SPRING AREA	Y (BY PASTURE LINE)
1986	NORMAL	SPRING AREA	Y (BY PASTURE LINE)
1987	NORMAL	SPRING AREA	Y (BY PASTURE LINE)
1988	DRY	SPRING AREA	N
1989	NORMAL	SPRING AREA	N
1990	WET	N	N
1991	NORMAL	SPRING AREA	Y (BY PASTURE LINE)
1993	WET	SPRING AREA & LOWER AREA	Y (BY PASTURE LINE)
1994	NORMAL	BAD SLIDE	BAD SLIDE
1995	DRY	N	N
1996	NORMAL	N	Y (BY PASTURE LINE)
1997	NORMAL	N	N
1999	NORMAL	N	N
2001	WET	SPRING AREA	N
2002	NORMAL	SPRING AREA	Y (BY PASTURE LINE)
2005	DRY	N	Y (BY PASTURE LINE)
2008	NORMAL	SPRING AREA	Y (BY PASTURE LINE)
2013	WET	SPRING AREA	Y (BY PASTURE LINE)
1981	NORMAL	Y	JCT HWY 64 & 30TH STREET 100X(11/12)=91.7%
1982	NORMAL	Y	
1983	NORMAL	BAD SLIDE	
1984	NORMAL	Y	
1985	DRY	Y	
1986	NORMAL	Y	
1987	NORMAL	Y	
1988	DRY	Y	
1989	NORMAL	Y	
1990	WET	N	
1991	NORMAL	Y	
1993	WET	Y	
1994	NORMAL	BAD SLIDE	
1995	DRY	Y	
1996	NORMAL	Y	
1997	NORMAL	N	
1999	NORMAL	Y	
2001	WET	Y	
2002	NORMAL	Y	
2005	DRY	N	
2008	NORMAL	Y	
2013	WET	Y	
100 x (#Wet Signatures/ #Normal Years) = %	100X(6/12)= 50.0% SPRING AREA	100(8/12)=66.7% AT PASTURE LINE	
*Precipitation three months antecedent to aerial photographs (April, May, June)			
KEY: Y= Yes, wetness; N= No, no wetness signature; DO= drowned out; CS= crop stressed; NC= not cropped (hay, pasture, idle); AC= altered crop pattern; VV= volunteer vegetation (e.g. weeds); WS= wet signature; DW= drainageway, P= photo			

APPENDIX C: Site Photos



ASTER (*SYMPHYOTRICHUM PUNICEUM*)



GOLDENROD (*SOLIDAGO SP.*)



TANSY (*TANACETUM VULGARE*)



YARROW (*ACHILLEA MILLEFOLIUM*)



**TIMOTHY BLOOMING
(*PHLEUM PRATENSE*)**



**WILLOW HERB NEW GROWTH
(*EPILOBIUM SP.*) 10/31/2014**