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Appendix A

Wetlands Survey - 2011



DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS, OMAHA DISTRICT WYOMING REGULATORY OFFICE 2232 DELL RANGE BOULEVARD, SUITE 210 CHEYENNE WY 82009-4942

December 19, 2011

Wyoming Regulatory Office

Ms. Miriam Whatley Cameco Resources, Inc. Development Department 550 North Poplar, Suite 100 Casper, Wyoming 82601

Dear Ms. Whatley:

This letter is in response to your request we received on December 1, 2011, for verification of a preliminary aquatic resources inventory at existing and proposed mine units in the Smith Ranch Highland/Reynolds Uranium Recovery Permit Area. This permit area includes the Highland (Permit 603) and Smith Ranch (Permit 633). The total permit area includes 62.3 square miles in Townships 35-37 North, Ranges 72-75 West in Converse County, Wyoming.

The U.S. Army Corps of Engineers regulates placement of dredged and fill material into waters of the United States in accordance with Section 404 of the Clean Water Act (33 U.S.C. 1344). The term "waters of the United States" has been broadly defined by statute, regulation, and judicial interpretation to include all waters that were, are, or could be used in interstate commerce such as streams, canals, reservoirs, lakes and adjacent wetlands. The Corps regulations are published in the *Code of Federal Regulations* as 33 C.F.R. Parts 320 through 332. Information on regulatory program requirements in Wyoming can be obtained from our website at http://www.nwo.usace.army.mil/html/od-rwy/Wyoming.htm

We have reviewed the report prepared by Hayden-Wing Associates, LLC titled Cameco Resources, Inc., Smith Ranch-Highland/Reynolds Uranium In-Situ Recovery Project, Converse County, Wyoming, Wetland Surveys – August 2011 dated November 2011. Based on documentation in the report, we determined that methods used to map drainage areas and identify wetlands at select locations are consistent with the Corps of Engineers Wetland Delineation Manual dated January 1987 and appropriate supplement. Therefore, Map 1 in the report dated October 2011 provides an accurate depiction of all drainage locations where streams and wetlands may be present at Mine Units A-F, H-K, 1-4, 6-12, 15, and 21-28 within the permit area. This verification is valid indefinitely unless new mapping techniques or other information warrants a modification.

The presence or absence of wetland was evaluated at 19 locations within 13 mine units out of 30 mine units identified on Map 1. Wetland characteristics were documented at 11 locations. These sample points are useful for understanding where wetlands are likely to occur but do not serve as a delineation because no wetland boundaries were mapped. More accurate wetland delineations are only necessary when a proposed surface disturbing activity such as

construction of a road or installation of utilities within a well field would occur within a drainage shown on Map 1. Most of these drainages are unnamed ephemeral streams that function as tributaries of Sage Creek, Duck Creek, Willow Creek, and Box Creek. Sage Creek is a tributary of the North Platte River and the other three creeks are tributaries of streams that eventually flow into the Cheyenne River. These two rivers are interstate traditional navigable waters so streams and adjacent wetlands within the study area could be waters of the United States as defined at 33 CFR Part 328.3(a)(5) and (7). Aquatic sites such as playas and other natural or created topographic depressions with wetland characteristics that are isolated from the stream network are not likely to be waters of the United States.

Please understand that this letter provides verification of a preliminary aquatic resources inventory, which does not constitute an approved jurisdictional determination. An extensive evaluation in accordance with administrative procedures implemented by Headquarters of the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers on June 5, 2007, is now required before exerting jurisdiction over many streams and wetlands. The procedure is based primarily on rulings by the U.S. Supreme Court on January 9, 2001, in the case of Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers and on June 19, 2006, in the case of Rapanos et ux., et al. v. United States.

The administrative procedure described above is not necessary prior to undertaking activities authorized by nationwide permits such as construction of roads and utilities. On March 12, 2007, nationwide permits were published in Part II of the *Federal Register* (Vol. 72, No. 47). Those permits are available for a period of 5 years and will expire on March 18, 2012. Nationwide permits are scheduled to be issued again for another 5-year period prior to the expiration date. Current information on nationwide permits is available from our website.

Thank you for your interest in cooperating with requirements of the U.S. Army Corps of Engineers' regulatory program. Please contact me at (307) 772-2300 and reference our file NWO-2011-00594 if you have any questions about the jurisdictional determination procedure or specific permit requirements.

Sincerely,

Thomas B. Johnson, P.E.

Project Manager

Wyoming Regulatory Office

Copy Furnished:

Hayden-Wing Associates, LLC P.O. Box 1689 Laramie, Wyoming 82073

The Omaha District, Regulatory Branch. Wyoming Regulatory Office is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete a Customer Service Survey found on our web site at http://www.nwo.usace.army.mil/html/od-rwy/survey.htm Paper copies of the survey are also available upon request for those without Internet access.

Cameco Resources, Inc. Smith Ranch-Highland/Reynolds Uranium In-Situ Recovery Project Converse County, Wyoming

Wetland Surveys - August 2011



Prepared for

Cameco Resources, Inc. 550 N. Poplar Casper, WY 82601



Prepared by

Hayden-Wing Associates, LLC Natural Resource Consultants P.O. Box 1689 Laramie, WY 82073

Revised November, 2011

Potential Wetlands Surveyed in Cameco Resources' Smith Ranch-Highland/Reynolds Uranium In-Situ Recovery Project Converse County, Wyoming August, 2011

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APPENDIX A

Field Forms

APPENDIX B

Photos

Potential Wetlands Surveyed in Cameco Resources' Smith Ranch-Highland/Reynolds Uranium In-Situ Recovery Project Converse County, Wyoming August, 2011

1.0 INTRODUCTION

Cameco Resources requested the completion of wetland surveys within the Smith Ranch-Highland/Reynolds Permit Area, in compliance with United States Army Corps of Engineers (USACE) regulations. Surveys are associated with a permit renewal to be issued by the Wyoming Department of Environmental Quality. Cameco proposes to combine the existing Highland Uranium Permit Area (Permit #603) and the Smith Ranch Permit Area (Permit #633), as well as the newly proposed Reynolds Ranch area. The combined Smith Ranch-Highland/Reynolds Permit Area (Permit #633) is located approximately 22 miles northeast of Glenrock, Wyoming (T37N:R74W, Sections 25, 26, 35, 36; T37N:R73W, Sections 30-32; T36N:R74W, Sections 1, 2, 11-14, 22-27, 33-36; T36N:R73W, Sections 5-7, 10-31, 34-36; T36N:R72W, Sections 7, 16-22, 29, 30; T35N:R75W, Sections 13, 24; T35N:R74W, Sections 2-5, 8-11, 14-19, 21) encompassing 39,868 acres.

Wetland surveys were completed by Hayden-Wing Associates LLC., Laramie, Wyoming (HWA), between June 20 and June 30, 2011. During a meeting which took place on May 2, 2011, HWA, Cameco Resources, and the USACE determined that wetland surveys would be necessary within areas of proposed mining disturbance, but not within the entire permit area. It was also decided that the goal of initial surveys would be to determine whether wetlands were present within the proposed mine; full delineations of these areas would only be necessary if direct disturbance (i.e. filling) would result from mining activities. It was also agreed that locations of drainages would be verified.

2.0 OBJECTIVES AND METHODS

2.1 Methods

Prior to commencing field work, areas of potential wetlands were identified using color infra-red (CIR) aerial imagery, in conjunction with the National Wetland Inventory (NWI) database (available online at www.fws.gov/wetlands). Drainages were also delineated using CIR imagery. Potential wetlands and drainages were identified and digitized using ArcGIS® version 10. Data were collected in the field using USACE field forms, USGS 1:24,000 scale topographic maps, and Trimble Juno SB® Global Position System (GPS) units running ArcPad® 10 software.

Mine units proposed in the Reynolds EA (BLM 2011) and the Smith Ranch and Highland annual reports (Cameco Resources 2010a, 2010b) were surveyed for wetlands (Map 1). A map provided by Cameco Resources was also used to establish boundaries of mining activities. Wetland surveys were completed in all areas where proposed mine units overlapped with the potential wetland sites identified from CIR and NWI. Within each potential wetland site, a wetland survey point was selected which most exhibited wetland characteristics (generally the area with lowest elevation) and a USACE form was filled out. The boundaries of wetlands were not delineated; however, wetland observation points were taken which involved a simple observational determination of wetlands present, absent, or possible. These observation points were not associated with USACE field forms, and were meant to give an approximation of the extent of a wetland. These points were also used to document that an area was visited, but no wetland characteristics were observed.

Survey protocols followed the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (USACE 2008). This manual is designed to standardize wetland delineation techniques through the observation of (1) hydrophytic vegetation, (2) hydric soil, and (3) wetland hydrology. Unlike the original 1987 manual (USACE 1987), the regional supplement is specific to the Great Plains region. In order for an area to be classified as a wetland, all three criteria must be met. To promote consistent classification, field forms require specific indicators be observed in order to meet each criteria. Completed field forms are included in Appendix A. Survey crews included at least one member who was certified, having completed a 38-hour Army Corps of Engineers Wetland Delineation and Management Training Program.

2.2 Wetland Indicators

Primary wetland hydrology indicators include observations such as surface water, high water table, saturation and water marks (USACE 2008). However, secondary indicators such as surface soil cracks and geomorphic position can also be used to establish that appropriate hydrology exists at some point during the year.

Hydric soil indicators often involve histic epipedons (soils with an organic upper horizon), or evidence of oxidation and/or reduction of iron (USACE 2008). These "redox" reactions indicate that the soil has undergone anaerobic conditions, causing iron to become reduced as Ferric (Fe⁺³) converts to Ferrous (Fe⁺²). The reverse reaction, oxidation, occurs when aerobic conditions resume. This process results in observable color changes to the soil (NRCS 2010).

The presence of hydric vegetation was determined by recording all species present at the site, and establishing dominance. As recommended (USACE 2008), circular plots were used with radii of 5' for herbaceous stratum, 15' for sapling/shrub stratum, and 30' for tree and woody vine strata. Absolute percent cover was recorded using an ocular estimate, and dominance was established using the 50/20 rule (USACE 2008). Based on this rule, species with the greatest percent cover are considered dominant until the sums of their cover reach 50%. In addition, any species with over 20 percent cover is considered dominant. Plant species are assigned a wetland indicator value by the National Wetlands Inventory, and over 50% of dominant species must be obligate, facultative wetland, or facultative species. If upland species are dominant, the vegetation criteria is generally not met.

3.0 RESULTS

A total of 19 potential wetland sites were surveyed during June 2011 within the Smith Ranch Highland/Reynolds Permit Area (Map 1). Since a full delineation was not required, at each potential wetland site surveyors sampled the area that most exhibited wetland qualities. Wetland observation points were taken in some areas to give an approximation of the extent of the wetland. Despite visiting this site in the spring season when wet conditions would be expected, the majority of potential wetland sites did not contain water. However, in some cases these sites still met criteria to be considered a wetland based on secondary characteristics such as geomorphic position and surface soil cracks. Results are summarized in Table 1. Photos are included in Appendix B.

Of the 19 sites surveyed, 11 were observed to be wetlands, however, wetland sites #6, #11, #14 and #18 all had very weak wetland indicators. Surface soil cracking can be a misleading indicator, particularly in vertisols with a high shrink/swell potential (USACE 2008). This indicator, in conjunction with geomorphic position (i.e. a depression or drainage) was used to establish wetland hydrology in these sites.

The presence of reduced iron was tested for using alpha-alpha dipyridyl, however, this indicator alone was not used to determine wetland conditions.

A common wetland soil indicator observed was the presence of redox concentrations, which were visible as small, reddish pore linings or soft masses (Appendix B, Photo 20). Histic epipedons were relatively rare, occurring in just 2 sites (wetland #1 and #2) (Appendix B, Photo 21). A reduced or "gleyed" matrix was also observed at several sites. Please refer to Appendix A for detailed observations recorded on field forms.

Wetland vegetation varied from site to site, but common species observed included *Juncus balticus* (Baltic rush), *Veronica sp.*(speedwell), and *Eleocharis sp.* (spikerush). Non-native vegetation was common, which was problematic since these species often do not have indicator values. *Bromus tectorum* (cheatgrass), for example, was very dense at some sites. Surveyors used native species with assigned indicator values to establish whether wetland vegetation was present, and disregarded species such as cheatgrass.

Current uranium mining disturbance was observed near site #11. Former disturbance (not likely associated with mining) was observed near site #4, with some filling apparent. Many wetlands were very small, covering less than 0.5 acre. Areas with more extensive coverage are noted under comments (Table 1). For each site, the mine unit in closest proximity was documented. At some sites, the only area with wetland qualities was slightly outside the proposed map unit (Map 1). Forms were filled out for these areas in order to document that the area was not simply overlooked, but that no suitable sampling sites were located within the mine unit.

The locations of drainages, digitized using CIR aerial imagery, were groundtruthed in the field and all were found to be accurate (Map 1). The majority of drainages in the permit area were very dry, with upland vegetation covering the channel bottom. The drainages surrounding wetland sites #1, #2, #11, #14, and #15 had patches of hydrophytic vegetation, but were mostly dry. Some standing water was observed around sites #1 and #2. The only flowing water observed was associated with a human-constructed cattle pond near site #15, which is likely dry for the majority of the growing season.

Table 1. Wetland sites surveyed during June 2011. Observations of the survey are summarized and associated mine units are indicated.

Wetland #	Wetland Observed	Mine Unit	Comments
1	yes	15A	Extensive area
2	yes	10 and 11	Extends up drainage
3	no	12	Dry drainage
4	no	21	Disturbance apparent
5	no	27	Dry depression
6	*yes	7	Slightly outside mine unit
7	yes	11	Extends up drainages
8	no	J exp.	Dry depression
9	no	J exp.	Dry depression
10	no	J exp.	Dry depression
11	*yes	K north	Current disturbance in area
12	yes	8	Depression
13	yes	6	Office area
14	*yes	6	Very patchy along drainage
15	yes	22 and 28	Extends up drainage
16	yes	22 and 28	Stock pond
17	no	21	Dry depression
18	*yes	15A	Small, earthen dam
19	no	10	Reclaimed area

^{*} indicates where only secondary hydrology indicators were present

4.0 CONCLUSIONS

During the June 2011 surveys, HWA surveyed 19 potential wetland sites within the Smith Ranch Highland/Reynolds Permit Area. Eleven of these sites were found to be wetlands, however, four of these were based on relatively weak secondary hydrology indicators. Delineation of drainages was found to be accurate, however, nearly all were observed to be dry.

Should Cameco Resources propose activites that will disturb any sites identified as wetlands, the USACE will likely require the completion of a Nationwide Permit 14. At the request of Cameco Resources, HWA will complete a delineation of the area. Precise boundaries of proposed mining activities will be required so that high resolution maps can be created, and acreages of disturbance calculated.

It is important to note that the Army Corps of Engineers is responsible for determining wetland status and regulating activities in wetland areas. While the 2011 surveys were completed by experienced professionals, no contractor is authorized to make absolute statements about the presence or absence of a wetland.

5.0 REFERENCES

Bureau of Land Management (BLM), 2011. Environmental Assessment for Cameco Resources/Power Resources Incorporated Reynolds Ranch In-situ Uranium Recovery Project, Casper Field Office, DOI-BLM- WY-060-EA10-111.

Cameco Resources, 2010a. Smith Ranch Project 2009-2010 Annual Report, Permit 633.

Cameco Resources, 2010b. Highland Uranium Project 2009-2010 Annual Report, Permit 603.

National Resources Conservation Service (NRCS), 2010. Field indicators of hydric soils in the United States. A guide for identifying and delineating hydric soils, version 7.0.

National Wetlands Inventory. www.fws.gov/wetlands.

U.S. Army Corps of Engineers (USACE), 2008. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region. ERDC/EL TR-08-12.

. 1987. Corps of Engineers Wetland Delineation Manual. Environmental Laboratory. Wetlands Research Program Technical Report Y-87-1.

APPENDIX A

Field Forms

WETLAND DETERMINATION DATA FORM - Great Plains Region Mine Unit 15A city/County: Converse Sampling Date: Like 21,291 Project/Site: Smith State: \NY Sampling Point: # Applicant/Owner: _ Camboo by KnydSoh Section, Township, Range: 11 - T35N 1274W Investigator(s): Lisa Mowling + Local relief (concave, convex, none): Canca ve Slope (%): creek Landform (hillslope, terrace, etc.): ____ Lat: 15041140.80 W Long: 430115.98" N Datum: NAD 83 Subregion (LRR): ___G Soil Map Unit Name: Clarkelen - Haverdon - Biowinder Complex NWI classification: Freshwaler Energy Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No_____ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes V Are Vegetation _____, Soil _____, or Hydrology _____naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): Total Number of Dominant Species Across All Strata: = Total Cover Percent of Dominant Species Sapling/Shrub Stratum (Plot size: That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = ____ FACW species ___ ____ x 2 = ___ FAC species _____ x 3 = ____ = Total Cover FACU species _____ x 4 = ____ Herb Stratum (Plot size: 5 OBL 1 Juneus F UPL species _____ x 5 = _____ OBI Column Totals: _____ (A) ____ (B) Turna 3. Maren aquelilic Prevalence Index = B/A = Hydrophytic Vegetation Indicators: Dominance Test is >50% V Prevalence Index is ≤3.01 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) O _= Total Cover Indicators of hydric soil and wetland hydrology must Woody Vine Stratum (Plot size: _____) be present, unless disturbed or problematic. Hydrophytic Vegetation = Total Cover Present? % Bare Ground in Herb Stratum Remarks: heal stratum (Mesent

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WETLAND DETERMINATION DATA FORM - Great Plains Region Mine Unit 15A city/County. Converse Sampling Date: Like 21, 291 Project/Site: Snith Applicant/Owner: ___ Investigator(s): Lisa Markin of by KnydSon Section, Township, Range: 11 - T35N 1274W Local relief (concave, convex, none): Canca ve Slope (%): creek Landform (hillslope, terrace, etc.): Lat: 105041140.80 W Long: 430115.98" N Datum: NAD 83 Subregion (LRR): ____G Soil Map Unit Name: Clarkelen - Haverdon - Biowinder Complex NWI classification: Freshwater Emergent Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ____ (If no, explain in Remarks.) Wetland Are "Normal Circumstances" present? Yes Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Yes 🗸 / No Hydric Soil Present? within a Wetland? Yes V No Wetland Hydrology Present? Remarks: VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC 1. ____ (excluding FAC-): Total Number of Dominant Species Across All Strata: Percent of Dominant Species Sapling/Shrub Stratum (Plot size: _____) That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = ____ FAC species _____ x 3 = ____ = Total Cover Herb Stratum (Plot size: 5' 11/11/3) FACU species _____ x 4 = ____ UPL species _____ x 5 = ____ 1. Juncus halticus 2. Tusha Column Totals: _____ (A) _____ (B) 3. Maren aqualitic Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.01 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) OO___= Total Cover ¹Indicators of hydric soil and wetland hydrology must Woody Vine Stratum (Plot size: be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes ' % Bare Ground in Herb Stratum _ Remarks: ** her stratum (Meent

SOIL:	11/2							Sampling Poi	
Profile Description Depth	: (Describe to	the depth	needed to docu	ment the	indicator	or confir	m the absence o	of indicators.)	
	Matrix or (moist)	%	Redo Color (moist)	ox Feature %	es Type	Loc²	Total		
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9,5=>25 /0,	FR 5/1	90	7.5 125/8	10	C	PL	Som		
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¹ Type: C=Concentrat	ion, D=Depletion	on, RM=Re	duced Matrix, CS	=Covered	d or Coate	Sand G		ion: PL=Pore Lining,	M=Matrix.
Hydric Soll Indicator Histosol (A1)	s: (Applicable	e to all LR					Indicators fo	r Problematic Hydri	c Solls ³ :
Histic Epipedon (A 71		Sandy G					ck (A9) (LRR I, J)	
Black Histic (A3)	72)		Sandy R				Coast Pro	airie Redox (A16) (LR	R F, G, H)
Hydrogen Sulfide	(A4)		Stripped Loamy M				Dark Sur	face (S7) (LRR G)	
Stratified Layers (ns Depressions (F16)	
1 cm Muck (A9) (L	RR F, G, H)		Depleted	l Matrix (F	-3)		(LKK	H outside of MLRA 7 Vertic (F18)	2 & 73)
Depleted Below D	ark Surface (A	11)	Redox D				Red Pare	nt Material (TF2)	
Thick Dark Surfac	e (A12)				face (F7)		Other (Ex	plain in Remarks)	
Sandy Mucky Mine	eral (S1)		Redox D				3Indicators of	hydrophytic vegetation	n and
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estrictive Layer (if p	rest (33) (Li	RR F)	(MLR	A 72 & 7:	3 of LRR I	1)	uniess dis	turbed or problematio	
BOUILLIAN FUARE III U							1		
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Depth (inches): Depth (inches): Depth (inches): Demarks: DROLOGY Detland Hydrology Incomary Indicators (mining and inches) Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Inundation Visible on Water-Stained Leaved Deposits (B5) Inundation Visible on Water-Stained Leaved Deposits (B5) Deposit	B2) Aerial Imagen s (B9) Yes Yes	y (B7)	Salt Crust (B Aquatic Inver Hydrogen Su Dry-Season \ Oxidized Rhiz (where not Presence of F Thin Muck Su Other (Explain Depth (inches	tebrates (Iffide Odol Water Tab zospheres tillied) Reduced I Inface (C7 n in Rema	r (C1) ble (C2) s on Living lron (C4) r) arks)	Wetlan	Secondary II Surface Sparsely Drainag Oxidized (when Crayfish Saturatio Geomory FAC-Nee Frost-He	ndicators (minimum o Soil Cracks (B6) y Vegetated Concave e Patterns (B10) d Rhizospheres on Live e tilled) Burrows (C8) on Visible on Aerial Im- phic Position (D2) utral Test (D5) ave Hummocks (D7)	f two require Surface (B8 ring Roots (C
Depth (inches): Depth (inches): Depth (inches): Demarks: DROLOGY Detland Hydrology Incomary Indicators (mining) Murface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Inundation Visible on Water-Stained Leaved Dobservations: ace Water Present? Table Present? ration Present? Ides capillary fringe)	B2) Aerial Imagen s (B9) Yes Yes	y (B7)	Salt Crust (B Aquatic Inver Hydrogen Su Dry-Season \ Oxidized Rhiz (where not Presence of F Thin Muck Su Other (Explain Depth (inches	tebrates (Iffide Odol Water Tab zospheres tillied) Reduced I Inface (C7 n in Rema	r (C1) ble (C2) s on Living lron (C4) r) arks)	Wetlan	Secondary II Surface Sparsely Drainag Oxidized (when Crayfish Saturatio Geomory FAC-Nee Frost-He	ndicators (minimum o Soil Cracks (B6) y Vegetated Concave e Patterns (B10) d Rhizospheres on Live e tilled) Burrows (C8) on Visible on Aerial Im- phic Position (D2) utral Test (D5) ave Hummocks (D7)	f two require Surface (B8 ring Roots (C
Depth (inches): Depth (inches): Depth (inches): Demarks: DROLOGY Detland Hydrology Incomary Indicators (mining and inches) Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Inundation Visible on Water-Stained Leaved Deposits (B5) Inundation Visible on Water-Stained Leaved Deposits (B5) Deposit	B2) Aerial Imagen s (B9) Yes Yes	y (B7)	Salt Crust (B Aquatic Inver Hydrogen Su Dry-Season \ Oxidized Rhiz (where not Presence of F Thin Muck Su Other (Explain Depth (inches	tebrates (Iffide Odol Water Tab zospheres tillied) Reduced I Inface (C7 n in Rema	r (C1) ble (C2) s on Living lron (C4) r) arks)	Wetlan	Secondary II Surface Sparsely Drainag Oxidized (when Crayfish Saturatio Geomory FAC-Nee Frost-He	ndicators (minimum o Soil Cracks (B6) y Vegetated Concave e Patterns (B10) d Rhizospheres on Live e tilled) Burrows (C8) on Visible on Aerial Im- phic Position (D2) utral Test (D5) ave Hummocks (D7)	f two require Surface (B8 ring Roots (C

WETLAND DETERMINATION DATA FORM - Great Plains Region Mine Unit 15A city/County: Converse Sampling Date: Like 21,291 State: WY Sampling Point: # Applicant/Owner: _ Camboo Investigator(s): Lisa Markin t. bn KnydSon Section, Township, Range: 11 - T35N 1274W Local relief (concave, convex, none): Canca ve Slope (%): _O Landform (hillslope, terrace, etc.): ________ Lat: 15041110.80 W Long: 430115.98" N Datum: NAD 83 Subregion (LRR): ____G Soil Map Unit Name: Clarkelen - Haveedord - Biowirder Complex NWI classification: Freshwater Emergent Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No_____ (If no, explain in Remarks.) _significantly disturbed? Are Vegetation _____, Soil _____, or Hydrology ____ Are "Normal Circumstances" present? Yes V Are Vegetation _____, Soil _____, or Hydrology _____naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Yes _✓ Hydric Soil Present? within a Wetland? Yes V No Wetland Hydrology Present? Remarks: VEGETATION - Use scientific names of plants. Dominance Test worksheet: Absolute Dominant Indicator Tree Stratum (Plot size: _____) % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): Total Number of Dominant Species Across All Strata: Total Cover Percent of Dominant Species Sapling/Shrub Stratum (Plot size: That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: _____ x1 = ____ OBL species FACW species _____ x 2 = ____ FAC species _____ x 3 = ____ = Total Cover Herb Stratum (Plot size: 5' 1 phiss) FACU species _____ x 4 = _____ ORL 1 Juneus halticus UPL species _____ x 5 = ____ OBL Column Totals: _____ (A) _____ (B) 2. Tunha latifolia 3. Maren aqualità Prevalence Index = B/A = ___ Hydfophytic Vegetation Indicators: Dominance Test is >50% V Prevalence Index is ≤3.01 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) OO = Total Cover ¹Indicators of hydric soil and wetland hydrology must Woody Vine Stratum (Plot size: _____) be present, unless disturbed or problematic. Hydrophytic Vegetation () = Total Cover Present? % Bare Ground in Herb Stratum _ Remarks: *

Profile Description: (Description: Matri	y		c	mulcator	or confir	n the absence o	f indicators.)	
(inches) Color (moist	× %	Color (moist)	x Feature %	es Type	1002	T t		
-In.5 IDVR3/	1 33	COIG (IIIOISI)	70	Туре	Loc	Texture		marks
5-19,5 10 YR 4	1 00	7.548518				~ sandy	Histic	6 b Deg C
9,5=>25 /OFR 5/	} 				RL	Sedulam		
110-10 10/K 3/	<u> 40</u> .	7.5 YR5/8	10	<u> </u>	PL	SOWN		
						-		
Type: C=Concentration D=D								
Type: C=Concentration, D=D Hydric Soll Indicators: (Appl	icable to all Li	Reduced Matrix, CS	=Covered	or Coate	d Sand Gr		ion: PL=Pore Lir	ning, M=Matrix.
/Histosol (A1)		Sandy G					r Problematic, H	
✓ Histic Epipedon (A2)		Sandy R				1 cm Muc	k (A9) (LRR I, J)
Black Histic (A3)		Stripped				Coast Pre	airie Redox (A16) (LRR F, G, H)
Hydrogen Sulfide (A4)		Loamy M				High Plair	ace (S7) (LRR (G) (54.6)
Stratified Layers (A5) (LRR	(F)		leyed Ma	trix (F2)		(LRR I	H outside of ML	F10) RA 72 & 73\
1 cm Muck (A9) (LRR F, G Depleted Below Dark Surfa	, H)	Depleted	Matrix (F	3)		Reduced	Vertic (F18)	NA 12 & 13)
Thick Dark Surface (A12)	ce (A11)	Redox Da					nt Material (TF2)	
Sandy Mucky Mineral (S1)		Depleted				Other (Ex	plain in Remarks	;)
2.5 cm Mucky Peat or Peat	(S2) (LRR G. F	Redox De			C)	Indicators of I	nydrophytic vege	tation and
_ 5 cm Mucky Peat or Peat (S	3) (LRR F)		A 72 & 73	3 of LRR I	o) 4\	wetland hy	drology must be	present,
a full a file and the state of					•,	uniess dis	turbed or probler	matic.
estrictive Layer (if present):								
Type: NONE		_						,
Type:		- -				Hydric Soll Pra	sant? Vac \	/ No
Type: NONE						Hydric Soll Pre	esent? Yes <u>\</u>	No
Type:		-				Hydric Soll Pre	sent? Yes <u>\</u>	No
Type:		-				Hydric Soil Pre	sent? Yes <u>\</u>	No
Type:		-				Hydric Soll Pre	rsent? Yes <u>\</u>	No
Type:	ne required; ch	eck all that apply)						
Depth (inches): Depth (inches): DROLOGY tland Hydrology Indicators: nary Indicators (minimum of one) Surface Water (A1)	ne required; ch		11)			Secondary In	adicators (minimu	um of two require
Depth (inches): Depth (inches): DROLOGY Itland Hydrology Indicators: nary Indicators (minimum of or Surface Water (A1) High Water Table (A2)	ne required: ch	Sellt Crust (B1	•	(B13)		Secondary In	ndicators (minimu Soil Cracks (B6)	um of two require
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Depth (inches): Depth (inches): Depth (inches): DROLOGY tland Hydrology Indicators: nary Indicators (minimum of or 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) nundation Visible on Aerial Im Water-Stained Leaves (B9) Observations: ce Water Present? Yes ation Present? Yes des capillary fringe)	NoNo	Salt Crust (B1 Aquatic Invert Hydrogen Sult Dry-Season W Oxidized Rhiz (where not i Presence of R Thin Muck Sur Other (Explain Depth (inches Depth (inches	ebrates (fide Odor Vater Tab ospheres tilled) educed li face (C7 in Rema	r (C1) ple (C2) s on Living ron (C4)) urks)	Wetland	Secondary In Surface Sparsely Drainage Oxidized (where Crayfish Saturatio FAC-Neu Frost-Hee	adicators (minimumos (um of two require cave Surface (Ba in Living Roots (C al Imagery (C9)

Project/Site: Smith/Mine	Unit 10 211	City/County:	n-evep	Sampling Date: Ime 21,201
Applicant/Owner: (amus			State: W	Sampling Point: #7
Investigator(s): 1-5~ Month & J	on raudson:	Section, Township, Re		
Landform (hillslope, terrace, etc.):	المصراب	Local relief (concave.	convex. none): (ala	coul Slope (%): 3
Subregion (LRR):	Lat. U	200'25.1954"	Long: 105° 45° 45	1.757" Datum: NAD 83
Soil Map Unit Name:			_	ification: No-t listed
Soil Map Unit Name:	the formation that diese of the			
Are climatic / hydrologic conditions on the			"Nermal Circumstances	" present? Yes No
Are Vegetation, Soil, or H			eeded, explain any ansv	
Are Vegetation, Soil, or H SUMMARY OF FINDINGS - Att				
SUMMARY OF FINDINGS - ALL		3 sampling point	- Tanaca	to, important reatares, etc.
Hydrophytic Vegetation Present?	Yes No	Is the Sample	d Area	,
Hydric Soil Present?	Yes No	within a Wetla	nd? Yes_\	No
Wetland Hydrology Present?	Yes No			
Remarks:				
				,
VEGETATION – Use scientific r	names of plants.			
	Absolute		Dominance Test wo	rksheet:
Tree Stratum (Plot size:) <u>% Cover</u>	Species? Status	Number of Dominant	
1			That Are OBL, FACV (excluding FAC-):	v, or FAC (A)
2				1
3.			Total Number of Don Species Across All S	
Sapling/Shrub Stratum (Plot size:		= Total Cover	Percent of Dominant That Are OBL, FACV	
1				
2.		- 	Prevalence Index w	
3.			Total % Cover of	f: Multiply by: x 1 =
4				x 2 =
5				x3 =
Herb Stratum (Plot size: 51 Nadius		_ = Total Cover		x 4 =
1. Juneus Laltinis	95	V OBL	1	x 5 =
2. Anroprism Goilala	<1	- FACU-		(A)(B)
3. Pon pratensis	41	- FAC U		
4. Platathera Sp.	()	- FALW		ex = B/A =
5			Hydrophytic Vegeta Dominance Test	
6			Prevalence Inde	
7				daptations ¹ (Provide supporting
8				irks or on a separate sheet)
9			Problematic Hyd	irophytic Vegetation ¹ (Explain)
10				
Woody Vine Stratum (Plot size:	<u>at</u>	_= Total Cover		soil and wetland hydrology must isturbed or problematic.
1			Hydrophytic	
4		= Total Cover	Vegetation	
% Bare Ground in Herb Stratum	<u> </u>	10(4) 00/8)	Present?	Yes <u>V</u> No
Remarks:				

DYR 3/2 100 Step Mayor	Profile Description: (Describe	to the depth	needed to docu	ment the indicator	r or confirm	n the absence	of indicators)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Color (mods) 96 Color (mods) 96 Type Loc Texture Remarks		_				000001100	or moreators.	
John St.		_%	Color (moist)		Loc ²	Texture	Remark	(S
Secondary Indicators: Applicable to all LRRs, urless otherwise noted.)	0-3 107R3/2	100				Login		
7.5.7. 2.5.15/2	3-45 754417-	100						
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Third Carbon,	45-2 1515/2							
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Jocation: PL=Pore Lining, M=Matrix, Various Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos Epipedon (A2) Histos Epipedon (A2) Black Histo (A3) Hydrogen Surfide (A4) Sirripped Matrix (S6) Hydrogen Surfide (A5) Sirripped Matrix (S6) Hydrogen Surfide (A6) Sirripped Matrix (S6) Hydrogen Surfide (A7) Depleted Matrix (F1) Josh Muck (A9) (LRR F, G, H) Depleted Matrix (F2) Josh Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sendy Mucky Mineral (F1) A surface (A12) Depleted Dark Surface (F6) Depleted Dark Surface (F7) Redox Dark Surface (F8) Sen Mucky Peat or Peat (S2) (LRR G, H) Stratified Layer (A5) (LRR F, G, H) Depleted Dark Surface (A12) Sen Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Depth (Inches): Mark's: Post Mucky Peat or Peat (S3) (LRR F) Mydrogen Surface (A11) Sparrace Vater (A1) A qualic Invertebrates (B13) A qualic Invertebrates (B13) A qualic Invertebrates (B13) A phydrogen Surface (A12) Depth (Inches): Mater Marks (B1) Deposits (B3) A qualic Invertebrates on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) (where not Illied) Crayfish Burrows (C8) A gall Mat or Crust (B4) Presence of Reduced Iron (C4) To prish Burrows (C8) A gall Mat or Crust (B4) Presence of Reduced Iron (C4) To prish Burrows (C8) A gall Mater Crust (B4) Presence of Reduced Iron (C4) To prish Burrows (C8) A gall Mater Crust (B4) Presence of Reduced Iron (C4) To prish Burrows (C8) A poph (Inches): Prost-Heave Hummocks (D7) (LRR F) Wettand Hydrology Present? Yes No Depth (Inches): Prost-Heave Hummocks (D7) (LRR F) Wettand Hydrology Present? Yes No Depth (Inches): Prost-Heave Hummocks (D7) (LRR F) Wettand Hydrology Present? Yes No Depth (Inches): Prost-Heave Hummocks (D7) (LRR F) Wettand Hydrology Present? Yes No Depth (Inches): Prost-Heave Hummocks (D7) (LRR F)	41 4		1110 110			Jand		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Jocation: PL=Pore Lining, M=Matrix, Various Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos Epipedon (A2) Histos Epipedon (A2) Black Histo (A3) Hydrogen Surfide (A4) Sirripped Matrix (S6) Hydrogen Surfide (A5) Sirripped Matrix (S6) Hydrogen Surfide (A6) Sirripped Matrix (S6) Hydrogen Surfide (A7) Depleted Matrix (F1) Josh Muck (A9) (LRR F, G, H) Depleted Matrix (F2) Josh Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sendy Mucky Mineral (F1) A surface (A12) Depleted Dark Surface (F6) Depleted Dark Surface (F7) Redox Dark Surface (F8) Sen Mucky Peat or Peat (S2) (LRR G, H) Stratified Layer (A5) (LRR F, G, H) Depleted Dark Surface (A12) Sen Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Depth (Inches): Mark's: Post Mucky Peat or Peat (S3) (LRR F) Mydrogen Surface (A11) Sparrace Vater (A1) A qualic Invertebrates (B13) A qualic Invertebrates (B13) A qualic Invertebrates (B13) A phydrogen Surface (A12) Depth (Inches): Mater Marks (B1) Deposits (B3) A qualic Invertebrates on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) (where not Illied) Crayfish Burrows (C8) A gall Mat or Crust (B4) Presence of Reduced Iron (C4) To prish Burrows (C8) A gall Mat or Crust (B4) Presence of Reduced Iron (C4) To prish Burrows (C8) A gall Mater Crust (B4) Presence of Reduced Iron (C4) To prish Burrows (C8) A gall Mater Crust (B4) Presence of Reduced Iron (C4) To prish Burrows (C8) A poph (Inches): Prost-Heave Hummocks (D7) (LRR F) Wettand Hydrology Present? Yes No Depth (Inches): Prost-Heave Hummocks (D7) (LRR F) Wettand Hydrology Present? Yes No Depth (Inches): Prost-Heave Hummocks (D7) (LRR F) Wettand Hydrology Present? Yes No Depth (Inches): Prost-Heave Hummocks (D7) (LRR F) Wettand Hydrology Present? Yes No Depth (Inches): Prost-Heave Hummocks (D7) (LRR F)	7-25 Gley 1 5/101	90 2	31K518	10 - C	PL	Saidy Chije	Sand & Clay in	Poteres-5
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Jocation: PL=Pore Lining, M=Matrix, United Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histo Epipedon (A2) Histo Epipedon (A2) Black Histo (A3) Hydrogen Surfide (A4) Stripped Matrix (S6) Hydrogen Surfide (A5) Siripped Matrix (S6) Hydrogen Surfide (A6) Siripped Matrix (S6) Hydrogen Surfide (A7) Depleted Matrix (F1) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F3) Redox Dark Surface (F3) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Dark Surface (F6) Depleted Dark Surface (F6) Som Mucky Peat or Peat (S2) (LRR G, H) Z.5 cm Mucky Peat or Peat (S3) (LRR F) Som Mucky Peat or Peat (S3) Som M					-			7,
ydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Epipedon (A2) Sandy Redox (S5) Slack Histic (A3) Histic Epipedon (A2) Sandy Redox (S5) Sandy Redox (S5) Skripped Matrix (S8) Hydrogen Sulfide (A4) Skripped Matrix (S8) Skripped Matrix (S8) Hydrogen Sulfide (A5) Skripped Matrix (S8) Skripped Matrix (F2) Depicted Below Dark Surface (A11) Thick Dark Surface (A12) Depicted Below Dark Surface (A12) Depicted Below Dark Surface (A12) Depicted Dark Surface (F7) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) Strittitive Layer (Fresant): Type: Alam 2 Depth (Inches): marks: Part Indicators of Problematic Hydric Soils*: 1 cm Muck (A9) (LRR F, G, H) Dark Surface (S7) (LRR G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73								
ydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Epipedon (A2) Sandy Redox (S5) Slack Histic (A3) Histic Epipedon (A2) Sandy Redox (S5) Siripped Matrix (S6) Hydrogen Sulfide (A4) Stripped Matrix (S6) Hydrogen Sulfide (A5) Stripped Matrix (S6) Syripped Matrix (S6) Hydrogen Sulfide (A6) Stripped Matrix (F2) Depicted Below Dark Surface (A11) Thick Dark Surface (A12) Depicted Below Dark Surface (A12) Depicted Below Dark Surface (A12) Depicted Dark Surface (F7) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) Striftitive Layer (F present): Type: Max 2 Depth (inches): Marrix: Depth (inches): Depth (inches): Depth (inches): Marrix: Depth (inches): Depth (inches): Depth (inches): Marrix: Depth (inches): Depth (inches): Depth (inches): Depth (inches): Marrix: Depth (inches): De	· .							
ydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Epipedon (A2) Sandy Redox (S5) Slack Histic (A3) Histic Epipedon (A2) Sandy Redox (S5) Sandy Redox (S5) Skripped Matrix (S8) Hydrogen Sulfide (A4) Skripped Matrix (S8) Skripped Matrix (S8) Hydrogen Sulfide (A5) Skripped Matrix (S8) Skripped Matrix (F2) Depicted Below Dark Surface (A11) Thick Dark Surface (A12) Depicted Below Dark Surface (A12) Depicted Below Dark Surface (A12) Depicted Dark Surface (F7) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) Strittitive Layer (Fresant): Type: Alam 2 Depth (Inches): marks: Part Indicators of Problematic Hydric Soils*: 1 cm Muck (A9) (LRR F, G, H) Dark Surface (S7) (LRR G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73 of LR H) Redox Depressions (F16) (LRR H outside of MIRA 72 & 73	Type: C=Concentration, D=Dep	letion, RM=Re	duced Matrix, CS	S=Covered or Coat	ed Sand Gr	ains. ² Loca	ation: PL=Pore Lining	M=Matrix
Histic Epipedon (A2) Black Histic (A3) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR F, G, H) Depleted Below Dark Surface (A12) Thick Dark Surface (A12) Somy Mucky Mineral (F1) Som Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) Strictified Layer (A5) (LRR F, G, H) Depleted Dark Surface (A12) Som Mucky Peat or Peat (S2) (LRR G, H) Depleted Dark Surface (A12) Type: Depleted Dark Surface (A12) Som Mucky Peat or Peat (S2) (LRR G, H) Strictive Layer (if presant): Type: Depleted Somy Mucky Mineral (A11) At Mark (B1) Depleted Dark Surface (A12) Type: Depleted Dark Surface (A12) Som Mucky Peat or Peat (S2) (LRR G, H) At Mark (B1) Strictive Layer (if presant): Type: Dark Surface (A12) Type: Dark Surface (A12) Type: Dark Surface (A12) Type: Depleted Dark Surface (A12) Type: Depth (inches): Depleted Dark Surface (A12) Type: Depleted Dark Surface (A12) Type: Depth (inches): Depleted Dark Surface (A12) Type: Dark Surface (A12) Type: Depleted Dark Surface (A12) Type: Dark Surface (A12) Type:	lydric Soil Indicators: (Applica	able to all LRI	Rs, unless other	wise noted.)			for Problematic Hydr	ic Solis ³ :
Histic Epipedon (A2) Black Histic (A3) Black Histic (A3) Hydrogen Sulfide (A4) Hydrogen Sulfide (A4) Straiffed Layers (A5) (LRR F) Lorm Muck (A5) (LRR F, G, H) Depleted Betinv (R5) Lorm Muck (A5) (LRR F, G, H) Depleted Betinv (R5) Depleted Betinv (R5) Redox Dark Surface (A1) Redox Dark Surface (F7) Redox Depressions (F8) Som Mucky Mineral (S1) Som Mucky Peat or Peat (S2) (LRR G, H) Som Mucky Peat or Peat (S3) (LRR F) Betin (Lark F, G, H) Depleted Dark Surface (F7) Redox Depressions (F8) Redox Dark Surface (F7) Redox Dark Sur	Histosol (A1)		Sandy G	Sleyed Matrix (S4)			-	
Stripped Matrix (S6)								RR F. G. H)
Hydrogen Sulfide (A4) Shartified Layers (A5) (LRR F) Loamly Mucky Mineral (F1) Loamly Gleyed Matrix (F2) Loamly Mucky Mineral (F1) Loamly Gleyed Matrix (F2) Loamly Gleyed Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (F6) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Thigh Plains Depressions (F8) Thigh Pl	_ ` ` '		Stripped	Matrix (S6)				, =,,
Straiffed Layers (A5) (LRR F) Joembus (A9) (LRR F, G, H) Depleted Below Dark Surface (A11) Per Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A12) Per Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A12) Per Muck (A9) (LRR F, G, H) Per Muck (A9) (LRR F, G) Per Muck (A9) (LRR F, G, H) Per Muck (A9)			Camy N	Mucky Mineral (F1)				5)
Depleted Bartix (F3) Depleted Bartix (F3) Depleted Bartix (F3) Depleted Bartix (F3) Depleted Bartix Surface (F5) Thick Dark Surface (A12) Depleted Dark Surface (F5) Sandy Mucky Mineral (S1) Secondary Mucky Peat or Peat (S2) (LRR G, H) Som Mucky Peat or Peat (S2) (LRR G, H) Som Mucky Peat or Peat (S2) (LRR G, H) Som Mucky Peat or Peat (S3) (LRR F) MLRA 72 & 73 of LRR H) Strictive Layer (if present): Type: Depth (inches): Dept		•	. /	·		(LRF	R H outside of MLRA	
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Depleted Dark Surface (F7) Redox Depressions (F8) 1 mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Depleted Dark Surface (F7) Redox Depressions (F8) 1 mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Drive: Depth (inches): Depth (Reduce	d Vertic (F18)	•
Sendy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 2.5 cm Mucky Peat or Peat (S2) (LRR F) 3 indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic. Setrictive Layer (if present): Type: Depth (inches): D	Thick Dock Surface	(A11)						
2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S2) (LRR F) 5 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 6 cm Mucky Peat or Peat (S2) (LRR F) 7 cm Mucky Peat or Peat (S2) (LRR F) 7 cm Mucky Peat or Peat (S2) (LRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 8 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm Mucky Peat or Peat (S2) (IRR F) 9 cm M)	Other (E	xplain in Remarks)	
Secondary Indicators (minimum of one required: check all that apply) Sufface Water (A1) Mydrogen Sulfide Odor (C1) Seturation (A3) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Iron Deposits (B5) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Oxidized Rhizospheres on Living Roots (C3) Iron Deposits (B5) Iron Deposits (B5) Oxidized Rhizospheres on Living Roots (C3) Iron Deposits (B5) Iron Deposits (B5) Oxidized Rhizospheres on Living Roots (C3) Iron Deposits (B5) Iron Deposits (B5) Oxidized Rhizospheres on Living Roots (C3) Iron Deposits (B5) Iron Deposits (B5) Oxidized Rhizospheres on Living Roots (C3) Iron Deposits (B5) Iron Deposits (B5) Oxidized Rhizospheres on Living Roots (C3) Iron Deposits (B5) Iron Deposits (B5) Iron Deposits (B5) Oxidized Rhizospheres on Living Roots (C3) Iron Deposits (B5)	2.5 cm Milicky Peat or Deat /9	2) (I PP C II)			40)			
DROLOGY Interview Layer (if present): Type:	5 cm Mucky Peat or Peat (S3)	(LRR F)						
Type:		(=itit F)	(NILP	A 12 & 13 OT LKK	. п)	unless d	isturbed or problemat	ic.
Depth (inches):						[
DROLOGY Itland Hydrology Indicators: Mary Indicators (minimum of one required: check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Dry-Season Water Table (C2) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) d Observations: are Water (A1) Secondary Indicators (minimum of two required (B8) Secondary Indicators (minimum of two required (B8) Secondary Indicators (minimum of two required (B8) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where titlled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where titlled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F) Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No No Depth (inches): Oxidized Rhizospheres on Living Roots (C3) (where titlled) (whe								
DROLOGY Itland Hydrology Indicators: Tary Indicators (minimum of one required: check all that apply) Sufface 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) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Depth (inches): Dresent? Wetland Hydrology Present? Yes No Depth (inches): Dresent? Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Depth (inches):							\/	
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Water-Stained Leaves (B9) d Observations: ace Water Present? er Table Present? Yes No Depth (inches): ration Present? yes No Depth (inches): Under Capillary fringe) Wetland Hydrology Present? Yes No	Depth (inches): DROLOGY Stand Hydrology Indicators: Day Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		ck all that apply) Selt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where no	B11) Intebrates (B13) Intebrates (B13) Intebrates (B13) Intebrates (C2) Izospheres on Livir It tilled) Reduced Iron (C4)		Secondary Surface Sparse Draina Cxidiz (whee Crayfis Satura	r Indicators (minimum re Soil Cracks (B6) ely Vegetated Concav rge Patterns (B10) ed Rhizospheres on L are tilled) sh Burrows (C8) tion Visible on Aerial I	of two required e Surface (B8) iving Roots (C
d Observations: face Water Present? er Table Present? yes No Depth (inches): ration Present? yes No Depth (inches): yes No Depth (inches): present ration Present? yes No Depth (inches): Wetland Hydrology Present? Yes No	Depth (inches): DROLOGY Stand Hydrology Indicators: Drary Indicators (minimum of one 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)	e required: che	ck all that apply) Selt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where no Presence of Thin Muck S	B11) Intebrates (B13) Ulfide Odor (C1) Water Table (C2) Izospheres on Livir t tilled) Reduced Iron (C4) urface (C7)		Secondary Surface Sparse Draina Oxidiz Creyfis Satura Geome	vindicators (minimum de Soil Cracks (B6) ely Vegetated Concavage Patterns (B10) ed Rhizospheres on Lare tilled) sh Burrows (C8) tion Visible on Aerial I	of two required e Surface (B8) iving Roots (C
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er Table Present? Yes No Depth (inches): Ves No Depth (inches): Wetland Hydrology Present? Yes No N	Depth (inches): DROLOGY Strand Hydrology Indicators: Dary Indicators (minimum of one of on	e required: che	ck all that apply) Selt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where no Presence of Thin Muck S	B11) Intebrates (B13) Ulfide Odor (C1) Water Table (C2) Izospheres on Livir t tilled) Reduced Iron (C4) urface (C7)		Secondary Surface Sparse Draina Oxidiz Crayfis Satura Geome	r Indicators (minimum re Soil Cracks (B6) ely Vegetated Concav re Patterns (B10) ed Rhizospheres on L are tilled) sh Burrows (C8) tion Visible on Aerial I orphic Position (D2) leutral Test (D5)	of two required e Surface (B8) iving Roots (C
ration Present? Yes No Depth (inches): 0 Wetland Hydrology Present? Yes No	DROLOGY Partiand Hydrology Indicators: Partiand Hydrology Indicators: Party Indicators (minimum of one o	e required; che	ck all that apply) Salt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where no Presence of Thin Muck St Other (Explain	B11) Intebrates (B13) Intebrates (B13) Interpretation (C1) Water Table (C2) Izospheres on Living tetilled) Reduced Iron (C4) Interpretation (C7) In in Remarks)		Secondary Surface Sparse Draina Oxidiz Crayfis Satura Geome	r Indicators (minimum re Soil Cracks (B6) ely Vegetated Concav re Patterns (B10) ed Rhizospheres on L are tilled) sh Burrows (C8) tion Visible on Aerial I orphic Position (D2) leutral Test (D5)	of two required e Surface (B8) iving Roots (C
udes capillary fringe)	DROLOGY Potland Hydrology Indicators: The property of the pr	e required: che	ck all that apply) Selt Crust (E Aquatic Inve Hydrogen Si Dry-Season Oxidized Rhi (where no Presence of Thin Muck Si Other (Expla	B11) Intebrates (B13) Intebrates (B13) Intebrates (B13) Intebrates (C1) Water Table (C2) Izospheres on Livir It tilled) Reduced Iron (C4) Interpretation (C7) In in Remarks) Interpretation (C4) Interpretatio		Secondary Surface Sparse Draina Oxidiz Crayfis Satura Geome	r Indicators (minimum re Soil Cracks (B6) ely Vegetated Concav re Patterns (B10) ed Rhizospheres on L are tilled) sh Burrows (C8) tion Visible on Aerial I orphic Position (D2) leutral Test (D5)	of two required e Surface (B8) iving Roots (C
cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Depth (inches): DROLOGY DROLOGY DIAM Hydrology Indicators: mary Indicators (minimum of one 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 Ima Water-Stained Leaves (B9) d Observations: face Water Present? Yes er Table Present? Yes	e required; che	ck all that apply) Selt Crust (E Aquatic Inve Hydrogen Si Dry-Season Oxidized Rhi (where no Presence of Thin Muck Si Other (Explain	B11) Intebrates (B13) Intebrates (B13) Intebrates (B13) Intebrates (C1) Water Table (C2) Izospheres on Livir It tilled) Reduced Iron (C4) Interpretation (C7) In in Remarks) Interpretation (C4) Interpretatio	-	Secondary Surface Sparse Draina Oxidiz Crayfis Satura Geome	r Indicators (minimum be Soil Cracks (B6) ely Vegetated Concav age Patterns (B10) ed Rhizospheres on L are tilled) sh Burrows (C8) tion Visible on Aerial I orphic Position (D2) leutral Test (D5) deave Hummocks (D7	of two required e Surface (B8) iving Roots (C
	Depth (inches): marks: properties of prope	agery (B7)	ck all that apply) Salt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where no Presence of Thin Muck S Other (Explain Depth (inches Depth (inches	B11) writebrates (B13) ulfide Odor (C1) Water Table (C2) izospheres on Livir t tilled) Reduced Iron (C4) urface (C7) in in Remarks) es):	- - - Wetlan	Secondary Surface Sparse Draina Oxidiz Satura Geome FAC-N Frost-H	r Indicators (minimum be Soil Cracks (B6) ely Vegetated Concav age Patterns (B10) ed Rhizospheres on L are tilled) sh Burrows (C8) tion Visible on Aerial I orphic Position (D2) leutral Test (D5) deave Hummocks (D7	of two required e Surface (B8) iving Roots (C

Project/Site: Smit / Mine Unit 10 41	1	City/County:Co	njevsp	Sampling Date: Jul 21,2011
Applicant/Owner: (amus)			State:	Sampling Point: 本る
Investigator(s): 1:50 Martin & Jon Kauds	DV	Section. Township, Re	inge: 17 T35N	
Landform (hillslope, terrace, etc.):		Local relief (concave.	convex. none): (ala	(aut Slope (%): 3
Subregion (LRR):	1at: 42	00/35,1954	Long: 105° 45' 46	1.7557" Datum: NAD 83
Soil Map Unit Name: HILONO - ZOWOOC	Comos	10%		ification: Not listed
Are climatic / hydrologic conditions on the site typical for	this time of you	or2 Van V		
Are climatic / hydrologic conditions on the site typical for	inis lime oi ye	dir tes <u>x</u> No_	"Normal Circumstances	" present? Yes No
Are Vegetation, Soil, or Hydrology				
Are Vegetation, Soil, or Hydrology			eeded, explain any ansv	
SUMMARY OF FINDINGS – Attach site ma	p showing	sampling point l	ocations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Yes	No	le the Semples	4 8	
Hydric Soil Present? Yes	No	Is the Sampled within a Wetla	I Area nd? Ves \	
Wetland Hydrology Present? Yes	No	Within a Wetta	165	
Remarks:				
		·		1
,				
VEGETATION – Use scientific names of pla	ents			
VEGETATION - Use scientific fiames of pro	Absolute	Dominant Indicator	Dominance Test wo	rksheet:
Tree Stratum (Plot size:)		Species? Status	Number of Dominant	
1			That Are OBL, FACV	
2			(excluding FAC-):	(A)
3			Total Number of Don	
4			Species Across All S	trata: (B)
Sapling/Shrub Stratum (Plot size:)		= Total Cover	Percent of Dominant That Are OBL, FACV	
1			Prevalence Index w	orksheet:
2			Total % Cover of	f: Multiply by:
3.			OBL species	x 1 =
5				x 2 =
		= Total Cover		x 3 =
Herb Stratum (Plot size: 51 radius)	95	/ 001		x 4 =
1. Junous Latieus	<u> </u>	V 0130		x5 =
2. Ancopyrum Spicalh	- 31	- FACU-	Column Totals:	(A) (B)
3. Rom pradensis	- 1	- FAC U FAC W	Prevalence Ind	ex = B/A =
4. Plata thera Sp.	< /	- 1 <u>/K W</u>	Hydrophytic Vegeta	ation Indicators:
5			Dominance Test	is >50%
6			✓ Prevalence Inde	x is ≤3.0¹
7			Morphological A	daptations ¹ (Provide supporting
8			-7	irks or on a separate sheet)
9 10.			Problematic Hyd	irophytic Vegetation ¹ (Explain)
10	97	= Total Cover	Indicator et acces	not and motional budgetons mare
Woody Vine Stratum (Plot size:				soil and wetland hydrology must isturbed or problematic.
1			Hydrophytic	
2		Tabal Carras	Vegetation	./
% Bare Ground in Herb Stratum		= Total Cover	Present?	Yes V No
Remarks:				
				·

	cription: (Describe	to the depth	needed to docu	ment the indica	or or confir	m the absence	Sampling Point: of Indicators.)
Depth	Matrix		Redo	ox Features			,
(inches)	Color (moist)	%	Color (moist)	% Typ	e' Loc²	Texture	Remarks
<u> 3</u>	101K 3/2	100 _		·		Loam	
3-4-5	251412	100				Sardy Log in	
4,5-7	2.5 15/2	120	-			Sind	
7-Z5	Gley 1 5/104	90 2	54R518	10 6	D/	54,00	Chick i Ru
	010/ = 07101		311310	10 2	_ /	مزدري والراء	And A Clay in Totales -5.
				. 			Sand & Clay in Policies - 50
					_		
Type: C=Co	oncentration, D=Depl	etion, RM=Re	duced Matrix CS	G=Covered or Co	ated Sand G	rains ² l or	ation: PL=Pore Lining, M=Matrix.
lydric Soll I	ndicators: (Applica	ble to all LR	Rs, unless other	wise noted.)	atoa oana o		for Problematic Hydric Solls ³ :
Histosol				Sleyed Matrix (S4	1)		luck (A9) (LRR I, J)
∠ Histic Ep	ipedon (A2)		_	Redox (S5)	''		Prairie Redox (A16) (LRR F, G, H)
Black His			Stripped	Matrix (S6)			urface (S7) (LRR G)
	Sulfide (A4)			Mucky Mineral (F			ains Depressions (F16)
	Layers (A5) (LRR F)			Bleyed Matrix (F2	2)		R H outside of MLRA 72 & 73)
	ck (A9) (LRR F, G, H Below Dark Surface			Matrix (F3)			ed Vertic (F18)
	rk Surface (A12)	(A11)		ark Surface (F6)			rent Material (TF2)
	ucky Mineral (S1)			d Dark Surface (F epressions (F8)	•7)		Explain in Remarks)
	ucky Peat or Peat (S	2) (LRR G. H		ins Depressions	/E16\ · · ·		of hydrophytic vegetation and
7		-, (nia Depi caalona	(1 10)	welland	hydrology must be present,
🙎 5 cm Muc	ky Peat or Peat (S3)	(LRR F)		RA 72 & 73 of LE	R H)	unless	disturbed or problematic
5 cm Muc estrictive La	ky Peat or Peat (S3) ayer (If present):	(LRR F)		RA 72 & 73 of LF	RR H)	unless (disturbed or problematic.
estrictive La	ky Peat or Peat (S3)	(LRR F)		RA 72 & 73 of LF	RR H)	unless	disturbed or problematic.
estrictive La Type: Depth (inchemarks:	eky Peat or Peat (S3) ayer (If present):		(MLR	RA 72 & 73 of LF	RR H)	unless of Hydric Soil F	
Type: Depth (inch	ky Peat or Peat (S3) ayer (If present): NIN 2		(MLR	RA 72 & 73 of LF	RR H)		
estrictive La Type: Depth (inchemarks:	eky Peat or Peat (S3) ayer (If present): NOVE nes): The alpha/A		(MLR	RA 72 & 73 of LF	RR H)		
Pestrictive Landscape Type: Depth (inchemarks:	eky Peat or Peat (S3) ayer (If present): NOVE nes): The alpha/A		(MLR	RA 72 & 73 of LF	RR H)		
Type: Depth (inchemarks: p	eky Peat or Peat (S3) ayer (if present): AIN E if Alpha/A	phn dili	(MLR - - 		RR H)	Hydric Soil F	Present? Yes No
DROLOG	eky Peat or Peat (S3) ayer (If present): NIN 2 if Alpha/Al Y ology Indicators: ors (minimum of one	phn dili	(MLR		RR H)	Hydric Soil F	Present? Yes No
DROLOG	eky Peat or Peat (S3) ayer (If present): NIN 2 ines): Y ology Indicators: ors (minimum of one later (A1)	phn dili	(MLR	311)	RR H)	Hydric Soil F	V Indicators (minimum of two require see Soil Cracks (B6)
DROLOG	eky Peat or Peat (S3) ayer (If present): NEW 2 if A A A A A or Man A A or	phn dili	eck all that apply) Salt Crust (E Aquatic Inve	311) artebrates (B13)	RR H)	Hydric Soil F Secondar Surfac Spars	V Indicators (minimum of two require ce Soil Cracks (B6)
DROLOG Stifface W High Wate	exy Peat or Peat (S3) ayer (If present): A A A A A A A A A A A A A A A A A A A	phn dili	eck all that apply) Salt Crust (E Aquatic Inve	B11) ertebrates (B13) ulfide Odor (C1)		Secondar Surfa Spars Drain	VIndicators (minimum of two require ce Soil Cracks (B6) rely Vegetated Concave Surface (B8 age Patterns (B10)
DROLOG Surface W High Wate Saturation Water Mari	exy Peat or Peat (S3) ayer (If present): A A A A A A A A A A A A A A A A A A A	phn dili	eck all that apply) Salt Crust (E Aquatic Inve Hydrogen St Dry-Season	B11) ertebrates (B13) ulfide Odor (C1) Water Table (C2		Secondar Secondar Surfar Paring Oxidiz	V Indicators (minimum of two require ce Soil Cracks (B6) sely Vegetated Concave Surface (B8 age Patterns (B10) ced Rhizospheres on Living Roots (Concave Roots)
DROLOG Surface W High Wate Saturation Water Mari	eky Peat or Peat (S3) ayer (If present): Alpha/Al Y ology Indicators: fors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2)	phn dili	eck all that apply) Salt Crust (E Aquatic Inve Hydrogen Su Dry-Season Oxidized Rhi	311) ertebrates (B13) ulfide Odor (C1) Water Table (C2 izospheres on Li		Secondar Surfar Spars Drainar Oxidiz	VIndicators (minimum of two require ce Soil Cracks (B6) sely Vegetated Concave Surface (B8 age Patterns (B10) sed Rhizospheres on Living Roots (Cere tilled)
DROLOG Surface W High Wate Saturation Water Mart Sediment [Drift Depos	eky Peat or Peat (S3) ayer (If present): Alpha/Al Y ology Indicators: fors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2)	phn dili	eck all that apply) Selt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where no	311) Intebrates (B13) Ulfide Odor (C1) Water Table (C2 izospheres on Li t tilled)	2) ving Roots (0	Secondar Surfa Spars Draine Oxidiz C3) (wh	VIndicators (minimum of two require ce Soil Cracks (B6) rely Vegetated Concave Surface (B8 age Patterns (B10) red Rhizospheres on Living Roots (Care tilled) sh Burrows (C8)
DROLOG Type: Depth (inchemarks: DROLOG Stland Hydrinary Indicat Surface W High Wate Saturation Water Mari Sediment I Drift Depos Algal Mat c	eky Peat or Peat (S3) ayer (If present): ALW 2 nes): Ology Indicators: ors (minimum of one later (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4)	phn dili	eck all that apply) Salt Crust (B Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where no	B11) Intebrates (B13) Ulfide Odor (C1) Water Table (C2 izospheres on Li t tilled) Reduced Iron (C	2) ving Roots (0	Secondan Surfa Spars Draina Oxidiz C3) (wh	Present? Yes No
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DROLOG Type: Depth (inchemarks: DROLOG Stland Hydrinary Indicated Sturation Water Marit Sediment (Drift Deposition	ry ology Indicators: ors (minimum of one later (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) lits (B5)	required: chi	eck all that apply) Selt Crust (E Aquatic Inve Hydrogen Su Dry-Season Oxidized Rhi (where no Presence of Thin Muck S	B11) Intebrates (B13) Ulfide Odor (C1) Water Table (C2 izospheres on Li t tilled) Reduced Iron (C	2) ving Roots (0	Secondar Surfac Spars Oxidiz C3) (wh Crayfi Sature Geom	VIndicators (minimum of two require ce Soil Cracks (B6) sely Vegetated Concave Surface (B8 age Patterns (B10) are tilled) sh Burrows (C8) ation Visible on Aerial Imagery (C9) sorphic Position (D2) Neutral Test (D5)
DROLOG Type: Depth (inchemarks: DROLOG Type: DROLOG Type: DROLOG Type: Type: DROLOG Type: Type:	eky Peat or Peat (S3) ayer (If present): A A A A A A A A A A A A A A A A A A A	required: chi	eck all that apply) Selt Crust (E Aquatic Inve Hydrogen Su Dry-Season Oxidized Rhi (where no Presence of Thin Muck S	311) Intebrates (B13) Ulfide Odor (C1) Water Table (C2) Izospheres on Lift tilled) Reduced Iron (Curface (C7)	2) ving Roots (0	Secondar Surfac Spars Oxidiz C3) (wh Crayfi Sature Geom	v Indicators (minimum of two require ce Soil Cracks (B6) rely Vegetated Concave Surface (B8 age Patterns (B10) red Rhizospheres on Living Roots (Care tilled) sh Burrows (C8) ation Visible on Aerial Imagery (C9) orphic Position (D2)
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DROLOG Polition Water Mark Sediment I Drift Depos Algal Mat of Iron Depos Inundation Water-Stair do Depos Water-Stair	eky Peat or Peat (S3) ayer (If present): A A A A Y ology Indicators: fors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) its (B5) Visible on Aerial Ima ned Leaves (B9) Ions: Present? Yes	gery (B7)	eck all that apply) Selt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where no Presence of Thin Muck St Other (Explain	ertebrates (B13) ulfide Odor (C1) Water Table (C2) izospheres on Li t tilled) Reduced Iron (C) urface (C7) in in Remarks)	2) ving Roots (0	Secondar Surfac Spars Oxidiz C3) (wh Crayfi Sature Geom	VIndicators (minimum of two require ce Soil Cracks (B6) sely Vegetated Concave Surface (B8 age Patterns (B10) are tilled) sh Burrows (C8) ation Visible on Aerial Imagery (C9) sorphic Position (D2) Neutral Test (D5)
DROLOG etland Hydrinary Indicat Surface W High Wate Saturation Water Mari Sediment (Drift Depos Inundation	exy Peat or Peat (S3) ayer (If present): VIN 2 res): re	gery (B7)	eck all that apply) Selt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where no Presence of Thin Muck S Other (Explain	and the states and the states are states and the states are states	ving Roots (0	Secondar Surfa Surfa Spars Oxidiz C3) (wh Crayfi Satura Geom FAC-N	Present? Yes No
DROLOG Type: Depth (inchemarks: DROLOG Strand Hydringary Indicate Surface W High Wate Saturation Water Marit Sediment I Drift Depos Algal Mat of Iron Depos Inundation Water-Stair d Observat face Water F der Table Presuration Press Indes capilla	eky Peat or Peat (S3) ayer (If present): A A A A Y ology Indicators: fors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) sits (B3) or Crust (B4) its (B5) Visible on Aerial Ima and Leaves (B9) Ions: Present? Yes esent? Yes ent? Yes	gery (B7)	eck all that apply) Salt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where no Presence of Thin Muck St Other (Explai	B11) Intebrates (B13) Intebrates (B13) Intebrates (B13) Intebrates (C1) Water Table (C2) Izospheres on Lift tilled) Reduced Iron (C1) In in Remarks) Interpretation (C2) In in Remarks) Interpretation (C2) In	ving Roots (0	Secondar Secondar Surfar Spars Oxidiz Ca) (wh Crayfi Satura Geom FAC-N Frost-	Present? Yes No

Project/Site: Smith / Mine Unit 10 &1	Ci	ty/County:	and wer	Sampling Date: 1/w 21,201
Applicant/Owner: (amus)			State: W	Sampling Point:
Investigator(s): I-sa Martin & Jon Kaudso	× 8	ection Township R		
Landform (hillslope, terrace, etc.): \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1	onel relief (concave	convex none). Col-	could Slone (%): 3
	L	01-5 1954	Long: 105° 45′ 48	0.7557" Datum: N4A 83
	Lat: _93.	Ø5.151		
Soil Map Unit Name: HIOVA - BOWDOC	CHA	ich .		fication: Not listed
Are climatic / hydrologic conditions on the site typical for the				
Are Vegetation, Soil, or Hydrology				"present? Yes No
Are Vegetation, Soil, or Hydrology	naturally probl	ematic? (If	needed, explain any ansv	vers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing s	ampling point	locations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Yes	No			_
1 /.	No	Is the Sample		/ No
	No	within a Wetl	and? 105_\	NO
Remarks:				
			•	•
·				
	-4-			
VEGETATION – Use scientific names of pla		Dania ant Indianta	T Bambanaa Tastum	alcah asti
Tree Stratum (Plot size:)		Dominant Indicator Species? <u>Status</u>	ł.	
1			 Number of Dominant That Are OBL, FACV 	
2.			(excluding FAC-):	(A)
3.			Total Number of Don	ninant 1
4.			Species Across All S	trata: (B)
Sapling/Shrub Stratum (Plot size:)		Total Cover	Percent of Dominant That Are OBL, FACV	
1			Prevalence Index w	orksheet:
2			Total % Cover of	
3.				x1=
4.			FACW species	x 2 =
5		Total Cover		x 3 =
Herb Stratum (Plot size: 51 radius)	~	- Total Cover	FACU species	x 4 =
1. Juneus holticus	45	V OBL	UPL species	x 5 =
2. Ancopyon Goicalh	_ <1	- FACU-		(A) (B)
3. Pon pratensis	22	- FAC U	- Prevelence Ind	ex = B/A =
4. Plata thera Sp.	_ <u> </u>	- FALW	Hygrophytic Vegeta	
5			Dominance Test	
6			Prevalence Inde	
7				daptations ¹ (Provide supporting
8				irks or on a separate sheet)
9			- Problematic Hyd	rophytic Vegetation ¹ (Explain)
10	- 61		-	
Woody Vine Stratum (Plot size:	<u>47</u> =	Total Cover		soil and wetland hydrology must sturbed or problematic.
1			- Hydrophytic	
4		Total Cover	Vegetation	
% Bare Ground in Herb Stratum		TOTAL COVE	Present?	Yes V No
Remarks:				
•				

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absance of Indicators.) Depth (Inches)	Profile Desci	ription: (Describe	to the den	th needed to door	mant the indicat		m the character	Sampling Point:	_
(Inches) Gold (moles) 54 Cook (moles) 56 Type Loc 2 Texture Remarks 2-1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (2014) 1 (20						or contin	in the absence	of Indicators.)	
John Str. John Muck (As) (LRR F, G, H) Str. John Muck (As) ((inches)		%			Loc ²	Texture	Remarks	
Strip Stri	3-3	107R3/2	100						
## P-25 Styl 10 10 2 2 2 15 10 2 2 2 15 10 2 2 2 2 2 2 2 2 2	2-45	254412	100						
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion Act Surface (A) Type: C=Concentration, D=Depletion Act Surface (A) Sandy Redux (S4) Sandy Redux (S4) Sandy Redux (S5) Sandy Redux (S6) Sandy Redux (S6)	-, , ,	2515/2							
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Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, Application, Call LRR, G, H) Depletion Matrix, CS=Covered Matrix, CS	4-63	Gley I 5/101	40	239K518	10 C	PL_	Sally Chije	Sand & Clay in Potores	-54
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Thistosof (A1) Histo Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Hydrogen Sulfide (A5) Stratified Layers (A5) (LRR F, G, H) Depleted Matrix (S8) Lorn Muck (A9) (LRR F, G, H) Depleted Balow Dark Surface (A12) Sandy Metry (A5) (LRR F, G, H) Depleted Balow Dark Surface (A12) Sandy Metry (A5) (LRR F, G, H) Depleted Balow Dark Surface (A12) Sandy Metry (A5) (LRR F, G, H) Depleted Balow Dark Surface (A12) Sandy Metry (A5) (LRR F, G, H) Depleted Balow Dark Surface (A12) Sandy Metry (A5) (LRR F, G, H) Depleted Balow Dark Surface (A12) Sandy Metry Metry (A5) (LRR F, G, H) Depleted Balow Dark Surface (A12) Sandy Metry Metry (A5) (LRR F, G, H) Depleted Balow Dark Surface (A12) Sandy Metry Metry (A5) (LRR F, G, H) Depleted Balow Dark Surface (A12) Sandy Metry Metry (A5) (LRR F, G, H) Depleted Matrix (R5) Thick Dark Surface (A12) Depleted Matrix (R5) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) Thick Dark Surface (A12) Sandy Metry (A5) (LRR F, G, H) Depth (inches): Water Marks (B1) Depth (inches): This Muck Surface (A7) Sand Mator Crust (B4) Presence of Reduced Iron (C4) Saturation (A3) Water Marks (B1) Deposits (B3) Agai Mat or Crust (B4) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks) Thin Muck Surface (C7) Presence of Reduced Iron (C4) Saturation (A2) Saturation (A2) Saturation (A2) Saturation (A2) Saturation (A2) Saturation (A2) Saturation (A3) Presence of Reduced Iron (C4) Saturation (A3) Saturation (A3) Presence of Reduced Iron (C4) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Sat								-	4
Histos (A1) Microstors: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*:		_							
Histos (Ar) Case						-			
Histos (Ar) Case	Tyme: C=Cor	acentration D=Dank		Dadward M. J. Co					
Histle Epipedon (A2) Black Histle (A3) Sandy Redox (S5) Sandy Redox (S5) Sandy Redox (S5) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR F, G, H) Depleted Matrix (F3) Lofamy Mucky Mineral (F1) Lord Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (F3) Pepleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Stratified Laver (A5) (LRR F, G, H) Depleted Dark Surface (F6) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Som Mucky Peat or Peat (S2) (LRR G, H) Som Mucky Peat or Peat (S2) (LRR G, H) Som Mucky Peat or Peat (S2) (LRR G, H) Som Mucky Peat or Peat (S2) (LRR G, H) Som Mucky Peat or Peat (S2) (LRR G, H) Som Mucky Peat or Peat (S3) (LRR F) Som Mucky Peat or Peat (S2) (LRR G, H) Som Mucky Peat or Peat (S3) (LRR F) Som Mucky Peat or Peat (S3) (LR	type. C-Cor	dicators: (Applica	ble to all I	Reduced Matrix, CS	S=Covered or Coa	ted Sand Gr		ation: PL=Pore Lining, M=Matrix	ζ
Histic Epipedon (A2) Black Histic (A3) Black Matrix (E5) Depleted Below Dark Surface (A1) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Bedox Dark Surface (F8) Clark Houtside of MLRA 72 & 73 of LRR H) Clark High Plains Depressions (F16) Clark Houtside of MLRA 72 & 73 of LRR H) Clark Houtside of MLRA 72 & 73 of LRR H) Clark Houtside of MLRA 72 & 73 of LRR H) Clark Houtside of MLRA 72 & 73 of LRR H) Clark Houtside of MLRA 72 & 73 of LRR H Clark Houtside of MLRA 72 & 73 of LRR H High Plains Depressions (F16) Clark Houtside of MLRA 72 & 73 of LRR H Clark Houtside of MLRA 72 & 73 of LRR H Clark Houtside of MLRA 72 & 73 of LRR H Clark Houtside of MLRA 72 & 73 of LRR H Clark Houtside of MLRA 72 & 73 of LRR H High Plains Depressions (F16) Clark Houtside of MLRA 72 & 73 of LRR H Clark Houtside of MLRA 72 & 73 of LRR H High Plains Depressions (F16) Clark Houtside of MLRA 72 & 73 of LRR H Reduced Vertic (F18) Reduced			Die to all L						
Black Histic (A3) Stripped Matrix (S5) Hydrogen Sulfide (A4) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stripped Matrix (S6) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sendy Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S2) (LRR G, H) Type: My Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F16) Redox Depressions (F16) MIRA 72 & 73 of LRR H) Setrictive Layer (if present): Type: My Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F16) Redox Depressions (F16) MIRA 72 & 73 of LRR H) Setrictive Layer (if present): Type: My Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F16) Redox Depressio	_ ,	,		Sandy	sieyed Matrix (S4)				
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Stratified Layers (A5) (LRR F))			
Depleted Belavin Dark Surface (A1) Copleted Belavin Dark Surface (A12) Depleted Belavin Dark Surface (A12) Depleted Belavin Dark Surface (A12) Sendy Mucky Mineral (S1) Sendy Mucky Mineral (S1) Send Mucky Peat or Peat (S2) (LRR G, H) Som Mucky Peat or Peat (S2) (LRR G, H) Setrictive Layer (If present): Type: Depleted Dark Surface (F5) Redox Dark Surface (F7) Redox Dark Surface (F8) Pligh Plains Depressions (F6) (MLRA 72 & 73 of LRR H) Depleted (MRA 72 & 73 of LRR H) Depleted Matrix (F16) MIRA 72 & 73 of LRR H) Depleted (MRA 72 & 73 of L	Stratified L	ayers (A5) (LRR F)		Loamy (Gleyed Matrix (F2)	,			
Depleted Below Dark Surface (A11)				Depleter	d Matrix (F3)				
Thick Dark Surface (A12) Sendy Mucky Mineral (S1) Sendy Mucky Peat or Peat (S2) (LRR G, H) Some Mucky Peat or Peat (S3) (LRR F) Some Muck Prosent? Yes No Depth (Inches):			(A11)	Redox D	Dark Surface (F6)				
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Sem Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Unless disturbed or problematic.	2 5 cm Mu	cky Mineral (S1)	2) // 55 -						
DROLOGY strand Hydrology Indicators: pary Indicators (minimum of two required strand Hydrology Indicators (minimum of two required Secondary Indicators (minimum of two req	2.5 cm MU	ony Pear of Pear (S)	4) (LKR G,	High Pla	ins Depressions (F16)	wetland	hydrology must be present.	
Depth (inches):	5 cm Muck	V Deat or Deat (C3)	/I DD EV						
DROLOGY etiand Hydrology Indicators: many Indicators (minimum of one required: check all that apply) Secondary Indicators (minimum of two required: Secondary Indica	5 cm Muck	y Peat or Peat (S3)	(LRR F)			R H)			
DROLOGY etland Hydrology Indicators: interv Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Set Crust (B11) High Water Table (A2) Saturation (A3) Water Marks (B1) Dry-Season Water Table (C2) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Iron Deposits (B5) Water-Stained Leaves (B9) Id Observations: face Water Present? Yes No Depth (inches): Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Creyfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F) Wetland Hydrology Present? Yes No Depth (inches): United the table (C2) Secondary Indicators (minimum of two require Surface Soil Cracks (B6) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Creyfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F) No Depth (inches): Wetland Hydrology Present? Yes No No No No No No No No No N	estrictive La	yer (if present):	(LRR F)			R H)			
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Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Ind Observations: face Water Present? Ter Table Present? Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): Depth (inches): Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No No Depth (inches): Dept	DROLOGY otland Hydro mary Indicato Gurface Wa High Water Saturation (Water Marks	yer (If present): Alpha / Alp	da di	theck all that apply Self Crust (i Aquatic Inve	RA 72 & 73 of LR Barton Barto		Secondary Surface Spars Draine Oxidiz	VIndicators (minimum of two reques Soil Cracks (B6) ely Vegetated Concave Surface age Patterns (B10)	(B8
Iron Deposits (B5)	DROLOGY Porting the second of	yer (If present): Alpha / Alp	da di	theck all that apply Self Crust (i Aquatic Inve	RA 72 & 73 of LR 311) ertebrates (B13) ulfide Odor (C1) Water Table (C2) izospheres on Liv		Secondary Surface Spars Draine Oxidiz	VIndicators (minimum of two requeses Soil Cracks (B6) ely Vegetated Concave Surface age Patterns (B10) ted Rhizospheres on Living Root	(B8
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Water-Stained Leaves (B9) Id Observations: face Water Present? Yes No Depth (inches): Our Table Present? Yes No Depth (inches): Uration Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No No Depth (inches):	DROLOGY DROLOGY DIAMETER STATE OF THE PROPERTY	ryer (If present): Alpha / Al	da di	theck all that apply Salt Crust (I Aquatic Inve Hydrogen S Dry-Season Oxidized Rh (where no	RA 72 & 73 of LR 311) Pricebrates (B13) ulfide Odor (C1) Water Table (C2) izospheres on Liv of tilled) Reduced Iron (C4)	ing Roots (C	Secondary Surface Spars Draine Oxidiz Ca) Crayfis	VIndicators (minimum of two requeses Soil Cracks (B6) ely Vegetated Concave Surface age Patterns (B10) and Rhizospheres on Living Rooters tilled) sh Burrows (C8)	(B8
Id Observations: face Water Present? Yes No Depth (inches): Yes No Depth (inches): Uration Present? Yes No Depth (inches): Yes No Depth (inches): Yes No Depth (inches): Wetland Hydrology Present? Yes No	DROLOGY Poly Indicate A print of the service of t	ryer (If present): Alpha / Al	required: c	theck all that apply Salt Crust (ii Aquatic Inve Hydrogen S Dry-Season Oxidized Rh (where no	BA 72 & 73 of LR Barton Art Service (B13) Ulfide Odor (C1) Water Table (C2) Bizospheres on Liver (C4) Stilled) Reduced Iron (C4) Surface (C7)	ing Roots (C	Secondary Surface Sparse Oxidize Cayling Crayfing Satura Geome	Vindicators (minimum of two reques Soil Cracks (B6) ely Vegetated Concave Surface age Patterns (B10) ted Rhizospheres on Living Root ere tilled) sh Burrows (C8) ation Visible on Aerial Imagery (Corphic Position (D2)	(B8 :s (C
face Water Present? Yes No Depth (inches): ter Table Present? Yes No Depth (inches): Uration Present? Yes No Depth (inches): Yes No Depth (inches): Yes No Depth (inches): Wetland Hydrology Present? Yes No	DROLOGY etland Hydro intary Indicate Saturation (Water Mark: Sediment Drift Deposit Algal Mat or Iron Deposit Inundation ()	respective (If present): Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alph	required: c	theck all that apply Salt Crust (ii Aquatic Inve Hydrogen S Dry-Season Oxidized Rh (where no	BA 72 & 73 of LR Barton Art Service (B13) Ulfide Odor (C1) Water Table (C2) Bizospheres on Liver (C4) Stilled) Reduced Iron (C4) Surface (C7)	ing Roots (C	Secondary Secondary Surface Sparse Oxidize Cayling Satura Geome	Indicators (minimum of two regions Soil Cracks (B6) ely Vegetated Concave Surface age Patterns (B10) and Richard Richa	(B8 :s (C
ter Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No	DROLOGY etland Hydro intary Indicate Saturation (Water Mark: Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V Water-Staine	respective (If present): Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alpha/Alph	required: c	theck all that apply Salt Crust (ii Aquatic Inve Hydrogen S Dry-Season Oxidized Rh (where no	BA 72 & 73 of LR Barton Art Service (B13) Ulfide Odor (C1) Water Table (C2) Bizospheres on Liver (C4) Stilled) Reduced Iron (C4) Surface (C7)	ing Roots (C	Secondary Secondary Surface Sparse Oxidize Cayling Satura Geome	Indicators (minimum of two regions Soil Cracks (B6) ely Vegetated Concave Surface age Patterns (B10) and Richard Richa	(B8 :s (C
uration Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No No	DROLOGY Type: Depth (inche emarks: DROLOGY etland Hydro imary Indicate Surface Wa High Water Saturation (Water Marks: Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation W Water-Staine Id Observation	respective (If present): Alpha / Alph	required: c	theck all that apply Salt Crust (i Aquatic Inve Hydrogen S Dry-Season Oxidized Rh (where no Presence of Thin Muck S Other (Expla	RA 72 & 73 of LR Barrier Rate (B13) ulfide Odor (C1) Water Table (C2) izospheres on Liver (C4) it tilled) Reduced Iron (C4) Surface (C7) ain in Remarks)	ing Roots (C	Secondary Secondary Surface Sparse Oxidize Cayling Satura Geome	Indicators (minimum of two regions Soil Cracks (B6) ely Vegetated Concave Surface age Patterns (B10) and Richard Richa	(B8 :s (C
ludes capillary fringe)	Estrictive Lay Type: Depth (inche emarks: DROLOGY etland Hydro imary Indicato Surface Wa High Water Saturation (inche) Drift Deposit Algal Mat or Iron Deposit Inundation Value Water-Staine Id Observation Id Observation	resent? Yes	required: o	theck all that apply Selt Crust (I Aquatic Inve Hydrogen S Dry-Season Oxidized Rh (where no Presence of Thin Muck S Other (Expla	RA 72 & 73 of LR 311) Priebrates (B13) ulfide Odor (C1) Water Table (C2) izospheres on Liver of tilled) Reduced Iron (C4) Surface (C7) uin in Remarks)	ing Roots (C	Secondary Secondary Surface Sparse Oxidize Cayling Satura Geome	Indicators (minimum of two regions Soil Cracks (B6) ely Vegetated Concave Surface age Patterns (B10) and Richard Richa	(B8)
	estrictive Lay Type: Depth (inche emarks: DROLOGY etland Hydro imary Indicato Surface Wa High Water Saturation (inche) Drift Deposit Algal Mat or Iron Deposit Inundation Value Staine Inundation Value Staine Id Observation ter Table Present	resent? Yes	required: c	check all that apply Salt Crust (I Aquatic Inve Hydrogen S Dry-Season Oxidized Rh (where no Presence of Thin Muck S Other (Expla	BA 72 & 73 of LR Ball Price (B13) Ulfide Odor (C1) Water Table (C2) izospheres on Livet tilled) Reduced Iron (C4) Surface (C7) Ain in Remarks) es):	ing Roots (C	Secondary Secondary Surface Sparse Oxidize Cayling Satura Geome	Indicators (minimum of two regions Soil Cracks (B6) ely Vegetated Concave Surface age Patterns (B10) and Richard Richa	(B8 :s (C
cribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOGY Type: Depth (inche emarks: DROLOGY Total Hydro Total Hydr	resent? Yes and Present?	required: c	check all that apply Salt Crust (I Aquatic Inve Hydrogen S Dry-Season Oxidized Rh (where no Presence of Thin Muck S Other (Expla	BA 72 & 73 of LR Ball Price (B13) Ulfide Odor (C1) Water Table (C2) izospheres on Livet tilled) Reduced Iron (C4) Surface (C7) Ain in Remarks) es):	ing Roots (C	Secondary Surface Surface Surface Sparse Call Sparse Call Satura Satura Geometric FAC-N	VIndicators (minimum of two regions of the certain	(B8 :s (C

WETLAND	DETERMINATION	DATA FORM	1 – Great Plain	s Region

Project/Site: Smith / Mine Unit la	City/County	. Converse	Sampling Date: July 21,201
Applicant/Owner: Camulas			State: WY Sampling Point: #3
	Assa Section To	wnship Range:	17, T35N P.74W
Landform (hillslope, terrace, etc.):		1834	ex, none): <u>Cov Co se</u> Slope (%): <u>3</u> ng: 105 08 3 5732 Datum: <u>MAO 53</u>
Subregion (LRR):	7		
Soil Map Unit Name: HIANG-BOWDAC	Complex		NWI classification: Not listed
Are climatic / hydrologic conditions on the site typical for the		V_ №	_ (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology			nal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology			I, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling	g point locat	tions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No le th	ne Sampled Area	
	No ./	in a Wetland?	/
Wetland Hydrology Present? Yes	No		
Remarks:			
			1
·			
VEGETATION - Use scientific names of pla	ınts.		
		Indicator Do	minance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species?	INU	mber of Dominant Species
1			at Are OBL, FACW, or FAC (A)
2		. —— (6)	Coldung (AC).
3.			tal Number of Dominant ecies Across All Strata: (B)
4			ecies Acioss Ali Strata.
Sapling/Shrub Stratum (Plot size:)	= Total Co	10	rcent of Dominant Species at Are OBL, FACW, or FAC:(A/B)
1			
2.		Pri	evalence Index worksheet: Total % Cover of: Multiply by:
3			
4			CW species
5			C species
Herb Stratum (Plot size: 5' val, us)	= Total Co	over	CU species x 4 =
2	6	T 1	PL species x 5 =
1. Par pratencia 2. Blomus lectorum	- 40		olumn Totals: (A) // (B)
l	- 3	For V	
4. Achilla melifativa	- 2	Facili	Prevalence Index = B/A =
5. Crastim arvanse	4	Fo. () Hy	drophytic Vegetation Indicators:
6. Advisalis Sp.		- -	Dominance Test is >50%
7. Straa nelsonri	/	- -	Prevalence Index is ≤3.01
8. Keelan maranta	7		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9. Allun 8-4		^	Problematic Hydrophytic Vegetation ¹ (Explain)
10. Pan Servalin	_ 5		
" Alystum desestorm	5 180 Total Co	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	dicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)		be	present, unless disturbed or problematic.
1. Antennaria Sp.	_ 	. — L.	rdrophytic
2		\ v _e	getation
% Bare Ground in Herb Stratum	= Total Co		esent? Yes No
Remarks:			
			·
well site #3			

epth	Matrix		Redox	Eeature			rm the absence of i	
nches)	Color (moist)		Color (moist)	%	Type ¹	Loc²	Texture	Remarks
3-2	104R4/2	_100 _		0	_	_	So. 19 6/4.	•
<u> </u>	104R 4/Z	100	_	0	_		Sandy clay	
3-12	10 YR 5/3	100		0			5.1	
			5 8 5 20				_ <u> </u>	
			* * * * * * * * * * * * * * * * * * * *					
			<u>:</u>					
De: C=C	oncentration, D=Dep	oletion RM-P	educed Matrix, CC-	Cavara		10	2.	n: PL=Pore Lining, M=Matrix
	pipedon (A2) stic (A3)		Sandy GI Sandy Re Stripped I	dox (S5) Matrix (S) ` ′		1 cm Muck Coast Prair	(A9) (LRR I, J) ie Redox (A16) (LRR F, G, F
Hydroger Stratified 1 cm Muc Depleted Thick Da Sandy Mi 2.5 cm Muc 5 cm Muc	Layers (A5) (LRR F ck (A9) (LRR F, G, I i Below Dark Surface rk Surface (A12) ucky Mineral (S1) lucky Peat or Peat (S3 ayer (If present):	H) e (A11) S2) (LRR G, H	Loamy Gl Depleted Redox Da Depleted Redox De High Plain	eyed Mai Matrix (F rk Surface Dark Sur pression s Depres	eral (F1) trix (F2) 3) ce (F6) face (F7) s (F8)		Dark Surface High Plains (LRR H Reduced Volume Other (Explains) 3Indicators of hy wetland hyd	ce (S7) (LRR G) Depressions (F16) Outside of MLRA 72 & 73) ertic (F18)

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one 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) Water Stained Leaves (B9) Field Observations:	Drainage Patterns (B10) 2) Oxidized Rhizospheres on Living Roots (C3) Iving Roots (C3) (where tilled) Crayfish Burrows (C8)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): 1.5 Depth (inches): Depth (inches): 1.5 Depth (inches): 1.5 Depth (inches): 2.5 Depth (inches):	Wetland Hydrology Present? YesNo spections), if available:

Project/Site: / Mine Unit 2 city/County: Con.	State: WY Sampling Point: #4
Applicant/Owner: Camus	
Investigator(s): Lisa Martin E Jon Enudson Section, Township, Rar	ige: 35) 1 5 1 N 19 10
Landform (hillslope, terrace, etc.): detression - tollinghills Local relief (concave, or	convex, none): Ohrau Slope (%): U
Subregion (LRR): <u>LRR-G</u> Lat: 105°42' 16.92"W	Long: 43° 7' 53.13' N Datum: Nad 83
Soil Map Unit Name: Ambria - Cisavan Campex	NWI classification: WEFTOWON (Freshu
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "	Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrologynaturally problematic? (If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soll Present? Wetland Hydrology Present? Yes No Is the Sampled within a Wetlan No within a Wetlan No	🗸
Remarks: - Area seems to be recently filled	in! (see photos)
- Dutside Mine Unit 21 area, but within	area on Reynolds EA
VEGETATION – Use scientific names of plants.	9
Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	Number of Dominant Species
1	That Are OBL, FACW, or FAC (excluding FAC-): (A)
2	
3	Total Number of Dominant Species Across All Strata:(B)
= Total Cover	
Sapling/Shrub Stratum (Plot size:)	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1	Prevalence Index worksheet:
3	Total % Cover of:Multiply by:
4	OBL species x 1 =
5.	FACW species x 2 =
= Total Cover	FAC species x3 =
Herb Stratum (Plot size: 5 radius)	FACU species x 4 =
1. Herrians according 25 Dom OBL	UPL species x 5 = (B)
2. Otronica iser estimation	Column Totals: (A) (B)
2	Prevalence Index = B/A =
3 -	Hydrophytic Vegetation Indicators:
	① Dominance Test is >50%
	Prevalence Index is ≤3.01
7	Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
9.	Problematic Hydrophytic Vegetation (Explain)
10.	Floble Halle Hydrophylic Vegetation (Explain)
Woody Vine Stratum (Plot size:)	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1	
2	Hydrophytic Vegetation
= Total Cover	Present? Yes No
% Bare Ground in Herb Stratum	
Remarks:	*
·	

	Matrix r (moist)		Redox	Features	or comm	n the absence of in	idicators.)	
0-2 76	r (moist)							
		%	Color (moist)	_% Type	Loc²	Texture	Damada	
2-20 7/5	1R411	100					Remarks	
$($ \wedge \wedge \vee \wedge \wedge	VQ VIII	100				Sittychul _		
	1K 9/1 -					Sily day		
						7 -		
Type: C=Concentration	on, D=Depletion	on, RM=Rec	luced Matrix CS=	Covered or Coate	t Sond Cr	21		
lydric Soll Indicators	: (Applicabl	e to all LRR	s. unless otherw	ise noted)	J Sand Gr		: PL=Pore Lining, M=Ma	trix.
Histosol (A1)				yed Matrix (S4)			roblematic Hydric Solls	i":
Histic Epipedon (A	2)		Sandy Re			1 cm Muck (A9) (LRR I, J)	
Black Histic (A3)	-,		Stripped N	` '		Coast Prairie	Redox (A16) (LRR F, G	i, H)
Hydrogen Sulfide (A4)			icky Mineral (F1)		Dark Surface	(87) (LRR G)	
Stratified Layers (A	5) (LRR F)			eyed Matrix (F2)			Depressions (F16)	
_ 1 cm Muck (A9) (L	RR F, G, H)		Depleted N			(LKK H o	utside of MLRA 72 & 73	3)
Depleted Below Da	rk Surface (A	.11)		k Surface (F6)		Reduced Ve	rtic (F18)	
Thick Dark Surface	(A12)	·		Dark Surface (F7)		Red Parent I Other (Expla	viateriai (1F2)	
_ Sandy Mucky Mine			- Redox Der			3Indicators of had	in in Remarks) rophytic vegetation and	
2.5 cm Mucky Peat	or Peat (S2)	(LRR G, H)		Depressions (F1)	3) · · :		dogy must be present,	
_ 5 cm Mucky Peat o	r Peat (S3) (L	RR F)		72 & 73 of LRR	4)	welland nyari	bed or problematic.	
estrictive Layer (if pr	esent):					G111033 G13(G11	bed of problematic.	
Туре:								
Depth (inches):								
emarks:						Hydric Soil Prese	nt? Yes No	X
							8	
			*					
DROLOGY								
tland Hydrology Ind	catore:							
mary Indicators (minIn		entine el ele	t 11 11					
Surface Market - (A4)	ium of one re	<u>quirea; cnec</u>				Secondary India	cators (minimum of two re	<u>e quire</u>
Surface Water (A1)		_	Salt Crust (B1	1)		Surface So	il Cracks (B6)	
High Water Table (A	2)	<u>-</u>	Aquatic Inverte	ebrates (B13)			egetated Concave Surfac	~e (R8
Saturation (A3)			_ Hydrogen Sulf			Drainage P	atterns (B10)	(50
Water Marks (B1)		=	_ Dry-Season W	ater Table (C2)			hizospheres on Living Ro	note (C
Sediment Deposits (8	32)	_	Oxidized Rhize	spheres on Living	Roots (C:	3) (where til		λι 3 (C
Drift Deposits (B3)			(where not t		•	Crayfish Bu	•	
Algal Mat or Crust (B	4)	=	_ Presence of Re					
Iron Deposits (B5)			 _ Thin Muck Surl			Coomership	Asia (Sa)	(C9)
Inundation Visible on	Aerial Imager	y (B7) —	Other (Explain				Position (D2)	
Water-Stained Leave:			_ office (Explain)	iii Keillaiks)		FAC-Neutra		
d Observations:	·/					Frost-Heave	Hummocks (D7) (LRR	F)
ace Water Present?	Vaa	N= V	/ 5		1			
			_ Depth (inches)					
er Table Present?		_/No_×	Depth (inches)	:				
	Yes	^ No_ <u>_X</u>	_ Depth (inches)	:	Wetland	d Hydrology Prese	nt? Yes \ No	
ration Present?					ı		NO NO	
ides capillary fringe)	etra o po							
	stream gauge	, monitoring	well, aerial photo	s, previous in spec	tions), if a	vailable:		

WETLAND DETERM	INATION	N DAT	ra F	ORM - C	Freat Plai	ns Regio	n		
Project/Site: Smith Rinch / Mine Unit 2	7 0	itv/Cou	ıntv:	Can	عكائمو		Sampling Date	6/22/	111
		,,,			State:	47	Sampling Point	t: 5	
Applicant/Owner: Camewo Investigator(s): I'm Knyllen / Liza Markin		Section	Town	sehin Ren	ge: 36	T37N R	74W		
Investigator(s): 3 h Charles / Light Vary		l and r	, IOWI	iship, Kan	90	Shich	Com s	Slone (%):	0
Landform (hillslope, terrace, etc.): Depression		Local re	ellet (c	22" L.	onvex, none	208125	47"N DO	tum: /	10 E 2
Subregion (LRR):	Lat: _104	5041	2/0	03 W	Long:	3 0 <i>0</i> 3.	Ua Cuel	lac Piner	الدور
Subregion (LRR): Soil Map Unit Name: Map Unit Name:	an L	() (r)	LIE	<u> </u>		VVVI classific	ation: Treshwa	Wetland	yent.
Are climetic / bydrologic conditions on the site typical for this	time of yea	r? Yes	5 <u>~</u>	No	(If no,	explain in R	lemarks.)	440	` /
Are Vegetation, Soil, or Hydrology sig	gnificantly o	disturbe	d?	Are "N	Normal Circu	ımstances"	oresent? Yes_	No	-V
Are Vegetation, Soil, or Hydrology na	aturally prob	olemati	c?	(If ne	eded, explair	n any answe	ers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map s	howing	samp	ling	point lo	cations,	transects	, important	features	, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:		7	s the	Sampled a Wetlan	Area d?	Yes	No <u></u>	<u>/</u>	
veg is mostly non-na									
VEGETATION - Use scientific names of plant		Damin		ndicator	Dominono	e Test worl	keheat:		
. Tree Stratum (Plot size:)	Absolute % Cover					Dominant S			
1.			angered de		That Are C	BL, FACW,			(0)
2.					(excluding	FAC-):			(A)
3.						ber of Domi		/	(5)
4.					Species A	cross All Str	ata:		(B)
Sapling/Shrub Stratum (Plot size:)	والمستعدد المستعدد ال	= Tota	d Cov	er	Percent of That Are C	Dominant S BL, FACW,	Species - or FAC:		(A/B)
1					Prevalenc	e Index wo	rksheet:		
2					Total	% Cover of:	Mul	Itiply by:	_
3					OBL speci	es	x1=_		_
4.				<u>-</u>	FACW spe	ecies	x 2 = _		_
5		= Tota	al Cov	er	FAC speci	es	x3=_		-
Herb Stratum (Plot size:)		1016	21 000	○ 1	FACU spe	cies	x 4 = _		-
1. Ansprim raptotum	5_	_		act-			x5=_		-
2. Action VC Co.	_3_				Column T	otals:	(A) _		– ^(B)
3. Ellysom decetion		_			Prev	alence Inde	x = B/A =		
4. Bromus techtorum	· <u> </u>		;	= 17			ion Indicators:		
5. Reenes Jepaneers				Fac V		nance Test i			
6. Alarogyrum spients			 -	Fac U-	_	lence Index			
7. Pin secunda	4	$-\overline{}$	·		Morpi	hological Ad	aptations ¹ (Prov	ide suppor	rting
8. Thinks ehermis					/ da	ta in Remar	ks or on a sepai	rate sheet)	1
9					✓ Probl	ematic Hydr	ophytic Vegetat	ion' (Expla	in)
Woody Vine Stratum (Plot size:)	42	= Tota	J. Cove	er	¹ Indicators	s of hydric s	oil and wetland	hydrology i	must
1					Do presen	.,			
2.					Hydrophy				
		= Tota	I Cov	er	Vegetation Present?	on Y	'es No	0	
% Bare Ground in Herb Stratum									
Remarks: Nin- noting diminate - No inc	lighter	1	Le	for v	1071-MAKLA	ત	Uhknow	~	
Musilulies of man - 100 100	7116-11	>.///.	()	, ,	-1 /14)			

60		
30	IL.	

Sampling Point:

Depth	Matrix	ne depth needed to docu	ov Epstures			ansence 01	moreaturs.)
(inches) Color (r	noist)	% Color (moist)	ox Features %	Type1	Loc²	Texture	Parada.
0-3 7.57R	11) 1	00	presentation.	.,,,,,	`	Clay	Remarks
3- H 7.59R	1/1 /2	P ₂					
J. J. K.	7 7		4507			55 Kicky	
T		_					
type: C=Concentration,	D=Depletion,	, RM=Reduced Matrix, CS	S=Covered o	or Coated	Sand Gr		n: PL=Pore Lining, M=Matrix.
Histosol (A1)	(Applicable (o all LRRs, unless other				Indicators for	Problematic Hydric Solis ³ :
Histic Epipedon (A2)			Sleyed Matri	x (S4)			(A9) (LRR I, J)
Black Histic (A3)		The state of the s	Redox (S5)			Coast Prai	rie Redox (A16) (LRR F, G, H)
Hydrogen Sulfide (A4			Matrix (S6)			Dark Surfa	ce (S7) (LRR G)
Stratified Layers (A5)			Mucky Miner Bleyed Matri				Depressions (F16)
1 cm Muck (A9) (LRR	(F. G. H)		d Matrix (F3)			(ERR H	outside of MLRA 72 & 73)
Depleted Below Dark	Surface (A11) Epiciel				Reduced V	
Thick Dark Surface (A	(12)	Depleted				Che /F	Material (TF2)
_ Sandy Mucky Mineral	(S1)	Redox D				3Indicators of b	lain in Remarks) /drophytic vegetation and
2.5 cm Mucky Peat or	Peat (S2) (LF	RRG, H) " High Plai			3) • • •	wetland hy	drology must be present,
5 cm Mucky Peat or P			RA 72 & 73 (unless dist	urbed or problematic.
strictive Layer (if pres	ent):						or problematic.
Type:							
Depth (inches):						Hydric Soil Pres	sent? Yes No
emarks:						Hydric Soil Pres	sent? Yes No
marks:						Hydric Soil Pres	sent? Yes No V
marks:						Hydric Soil Pres	sent? Yes No
marks: DROLOGY Iland Hydrology Indica						Hydric Soil Pres	sent? Yes No
DROLOGY tland Hydrology Indica mary Indicators (minimur		ired; check all that apply)					dlcators (minimum of two required
DROLOGY tland Hydrology Indica nary Indicators (minimur Surface Water (A1)		Salt Crust (B	•			Secondary Inc	dicators (minimum of two required
DROLOGY Iland Hydrology Indicators (minimur Surface Water (A1) High Water Table (A2)		Salt Crust (B	rtebrates (B			Secondary Inc.	dicators (minimum of two required
DROLOGY Itand Hydrology Indicates Mary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3)		Selt Crust (E Aquatic Inve	rtebrates (B ulfide Odor ((C1)		Secondary Inc. Surface S Sparsely	dicators (minimum of two required Soil Cracks (B6) Vegetated Concave Surface (B8)
DROLOGY Itland Hydrology Indica Mary Indicafors (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	n of one requi	Salt Crust (B Aquatic Inve Hydrogen St Dry-Season	rtebrates (B ulfide Odor (Water Table	(C1) (C2)		Secondary Inc. Surface S Sparsely Drainage Oxidized	dicators (minimum of two required Soll Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10)
DROLOGY Itland Hydrology Indica Mary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	n of one requi	Selt Crust (E Aquatic Inve	rtebrates (B ulfide Odor (Water Table	(C1) (C2)	. Roots (C	Secondary Inc. Surface S Sparsely Drainage Oxidized	dicators (minimum of two required Golf Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (C
DROLOGY Itland Hydrology Indica nary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	n of one requi	Salt Crust (B Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where not	rtebrates (B ulfide Odor (Water Table zospheres (t tilled)	(C1) (C2) on Living	. Roots (C	Secondary Inc. Surface S Sparsely Drainage Oxidized (where	dicators (minimum of two required Golf Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled)
DROLOGY Itland Hydrology Indica nary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	n of one requi	Salt Crust (B Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where not	rtebrates (B ulfide Odor (Water Table zospheres d t tilled) Reduced Ird	(C1) (C2) on Living	Roots (C	Secondary Inc. Surface S Sparsely Drainage Oxidized (where	dicators (minimum of two required Foil Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Ci tilled) Burrows (C8)
DROLOGY Itland Hydrology Indicators (minimur 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)	m of one requi	Salt Crust (B Aquatic Inve Hydrogen Su Dry-Season Oxidized Rhi (where not Presence of Thin Muck St	rtebrates (B ulfide Odor (Water Table zospheres (t tilled) Reduced Iro urface (C7)	(C1) (C2) on Living on (C4)	Roots (C	Secondary Inc Surface S Sparsely Drainage Oxidized (where Crayfish E	dicators (minimum of two required coil Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Burrows (C8)
DROLOGY Itland Hydrology Indica Mary Indicators (minimur 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 Ae	n of one requi	Salt Crust (B Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where not Presence of Thin Muck St	rtebrates (B ulfide Odor (Water Table zospheres (t tilled) Reduced Iro urface (C7)	(C1) (C2) on Living on (C4)	. Roots (C	Secondary Inc. Surface S Sparsely Drainage Oxidized (where Crayfish E Saturation Geomorpi	dicators (minimum of two required of the contract of the contr
DROLOGY Itland Hydrology Indica nary Indicators (minimur 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 Ae Water-Stained Leaves (I	n of one requi	Salt Crust (B Aquatic Inve Hydrogen Su Dry-Season Oxidized Rhi (where not Presence of Thin Muck St	rtebrates (B ulfide Odor (Water Table zospheres (t tilled) Reduced Iro urface (C7)	(C1) (C2) on Living on (C4)	Roots (C	Secondary Inc Surface S Sparsely Drainage Oxidized (where Crayfish E Saturatior FAC-Neut	dicators (minimum of two required coll Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Surrows (C8) I Visible on Aerial Imagery (C9) nic Position (D2) ral Test (D5)
DROLOGY Itland Hydrology Indications (minimum Mindicators (minimum Mindicators (minimum Mindicators (minimum Mindicators (Mindicators	n of one requi	Salt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where not Presence of Thin Muck St Other (Explain	rtebrates (B ulfide Odor (Water Table zospheres o t tilled) Reduced Iro urface (C7) n in Remark	(C1) e (C2) on Living on (C4) ks)	. Roots (C	Secondary Inc Surface S Sparsely Drainage Oxidized (where Crayfish E Saturatior FAC-Neut	dicators (minimum of two required of Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Burrows (C8) I Visible on Aerial Imagery (C9)
DROLOGY Itland Hydrology Indicators (minimum 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 Ae Water-Stained Leaves (Id) Id Observations: ace Water Present?	n of one requi	Salt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where not Presence of Thin Muck St Other (Explain	rtebrates (B ulfide Odor (Water Table zospheres o t tilled) Reduced Iro urface (C7) n in Remark	(C1) e (C2) on Living on (C4) ks)	Roots (C	Secondary Inc Surface S Sparsely Drainage Oxidized (where Crayfish E Saturatior FAC-Neut	dicators (minimum of two required of Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Surrows (C8) I Visible on Aerial Imagery (C9) nic Position (D2) ral Test (D5)
DROLOGY Itland Hydrology Indica Mary Indicators (minimur 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 Ae Water-Stained Leaves (Id) Id Observations: ace Water Present?	erial Imagery (B9)	Salt Crust (B Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where not Presence of Thin Muck St (B7) Other (Explain	rtebrates (B ulfide Odor (Water Table zospheres (titlled) Reduced Irc urface (C7) n in Remark	(C1) c (C2) con Living con (C4) ks)	Roots (C	Secondary Inc Surface S Sparsely Drainage Oxidized (where Crayfish E Saturatior FAC-Neut	dicators (minimum of two required of Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Surrows (C8) I Visible on Aerial Imagery (C9) nic Position (D2) ral Test (D5)
DROLOGY Itland Hydrology Indica Mary Indicators (minimur 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 Ae Water-Stained Leaves (I J Observations: ace Water Present? Part Table Present? Interpretation Present? Interpret	erial Imagery (B9) Yes Yes	Salt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where not Presence of Thin Muck St Other (Explain No Depth (inche	rtebrates (B rtebr	(C1) E (C2) On Living On (C4) Ks)	Wetland	Secondary Interpretation Surface S Sparsely Drainage Oxidized (where Crayfish E Saturation Geomorpi FAC-Neut Frost-Hea	dicators (minimum of two required Coll Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Burrows (C8) In Visible on Aerial Imagery (C9) Inic Position (D2) Iral Test (D5) Ive Hummocks (D7) (LRR F)
DROLOGY Itland Hydrology Indica Mary Indicators (minimur 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 Ae Water-Stained Leaves (I d Observations: ace Water Present? er Table Present? ration Present?	erial Imagery (B9) Yes Yes Yes	Salt Crust (B Aquatic Invertible Hydrogen St Dry-Season Oxidized Rhi (where not Presence of Thin Muck St Other (Explain No Depth (inche No Depth (inche No Depth (inche	rtebrates (B ulfide Odor (Water Table zospheres (titlled) Reduced Iro urface (C7) n in Remark (s):	(C1) (C2) (C2) (C3) (C4) (C4) (Ks)	Wetland	Secondary Interpretation Surface S Sparsely Drainage Oxidized (where Crayfish E Saturation Geomorpi FAC-Neut Frost-Hea	dicators (minimum of two required Coll Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Burrows (C8) In Visible on Aerial Imagery (C9) Inic Position (D2) Iral Test (D5) Ive Hummocks (D7) (LRR F)
DROLOGY Itland Hydrology Indica Mary Indicators (minimur 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 Ae Water-Stained Leaves (I d Observations: ace Water Present? er Table Present? ration Present?	erial Imagery (B9) Yes Yes Yes	Salt Crust (B Aquatic Invertible Hydrogen St Dry-Season Oxidized Rhi (where not Presence of Thin Muck St Other (Explain No Depth (inche No Depth (inche No Depth (inche	rtebrates (B ulfide Odor (Water Table zospheres (titlled) Reduced Iro urface (C7) n in Remark (s):	(C1) (C2) (C2) (C3) (C4) (C4) (Ks)	Wetland	Secondary Interpretation Surface S Sparsely Drainage Oxidized (where Crayfish E Saturation Geomorpi FAC-Neut Frost-Hea	dicators (minimum of two required Coll Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Burrows (C8) In Visible on Aerial Imagery (C9) Inic Position (D2) Iral Test (D5) Ive Hummocks (D7) (LRR F)
processes are the semants: DROLOGY Interpretation of the semants	erial Imagery (B9) Yes Yes Yes	Salt Crust (E Aquatic Inve Hydrogen St Dry-Season Oxidized Rhi (where not Presence of Thin Muck St Other (Explain No Depth (inche	rtebrates (B ulfide Odor (Water Table zospheres (titlled) Reduced Iro urface (C7) n in Remark (s):	(C1) (C2) (C2) (C3) (C4) (C4) (Ks)	Wetland	Secondary Interpretation Surface S Sparsely Drainage Oxidized (where Crayfish E Saturation Geomorpi FAC-Neut Frost-Hea	dicators (minimum of two required Coll Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Burrows (C8) In Visible on Aerial Imagery (C9) Inic Position (D2) Iral Test (D5) Ive Hummocks (D7) (LRR F)
DROLOGY Itland Hydrology Indica Mary Indicators (minimur 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 Ae Water-Stained Leaves (Id) d Observations: ace Water Present? retriale Present? retriale Present? retriale Recorded Data (street)	erial Imagery (B9) Yes Yes Yes	Salt Crust (B Aquatic Invertible Hydrogen St Dry-Season Oxidized Rhi (where not Presence of Thin Muck St Other (Explain No Depth (inche No Depth (inche No Depth (inche	rtebrates (B ulfide Odor (Water Table zospheres (titlled) Reduced Iro urface (C7) n in Remark (s):	(C1) (C2) (C2) (C3) (C4) (C4) (Ks)	Wetland	Secondary Interpretation Surface S Sparsely Drainage Oxidized (where Crayfish E Saturation Geomorpi FAC-Neut Frost-Hea	dicators (minimum of two required Coll Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Burrows (C8) In Visible on Aerial Imagery (C9) Inic Position (D2) Iral Test (D5) Ive Hummocks (D7) (LRR F)
DROLOGY tland Hydrology Indica mary Indicators (minimur 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 Ae Water-Stained Leaves (I I Observations: ace Water Present? retain Present? des capillary fringe) ribe Recorded Data (stre	erial Imagery (B9) Yes Yes Yes	Salt Crust (B Aquatic Invertible Hydrogen St Dry-Season Oxidized Rhi (where not Presence of Thin Muck St Other (Explain No Depth (inche No Depth (inche No Depth (inche	rtebrates (B ulfide Odor (Water Table zospheres (titlled) Reduced Iro urface (C7) n in Remark (s):	(C1) (C2) (C2) (C3) (C4) (C4) (Ks)	Wetland	Secondary Interpretation Surface S Sparsely Drainage Oxidized (where Crayfish E Saturation Geomorpi FAC-Neut Frost-Hea	dicators (minimum of two required Soil Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Burrows (C8) In Visible on Aerial Imagery (C9) Inic Position (D2) Iral Test (D5) Ive Hummocks (D7) (LRR F)
DROLOGY tland Hydrology Indica nary Indicators (minimur 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 Ae Water-Stained Leaves (I Observations: Ice Water Present? In Table Present? In Table Present? In Table Present? In Table Recorded Data (streen the streen the second to the secon	erial Imagery (B9) Yes Yes Yes	Salt Crust (B Aquatic Invertible Hydrogen St Dry-Season Oxidized Rhi (where not Presence of Thin Muck St Other (Explain No Depth (inche No Depth (inche No Depth (inche	rtebrates (B ulfide Odor (Water Table zospheres (titlled) Reduced Iro urface (C7) n in Remark (s):	(C1) (C2) (C2) (C3) (C4) (C4) (Ks)	Wetland	Secondary Interpretation Surface S Sparsely Drainage Oxidized (where Crayfish E Saturation Geomorpi FAC-Neut Frost-Hea	dicators (minimum of two required Coll Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) Rhizospheres on Living Roots (Citilled) Burrows (C8) In Visible on Aerial Imagery (C9) Inic Position (D2) Iral Test (D5) Ive Hummocks (D7) (LRR F)

Project/Site: Simith Ranch / Mine Unit 7	City/Co	untv: Covi	reise	Sampling Date: 6/22///
				Sampling Point:
Applicant/Owner: Carnero Investigator(s): Jin Knudsen / Lish Martin	Section	Township Ran		
Investigator(s):	decirar	elief (concave c	ouver none). Ces c	Slope (%):
Landform (hillslope, terrace, etc.): Revolession	US 2	212705°	1000: 105-12/3	Datum: MAD 8
Subregion (LRR):		1	NIM/I classifi	cation: Freshuzilar Pand
Soil Map Unit Name: Hiland-Boubac				,
Are climatic / hydrologic conditions on the site typical for this	time of year? Ye	s No	(if no, explain in r	No.
Are Vegetation, Soil, or Hydrology sig				present? Yes No
Are Vegetation, Soil, or Hydrology na	turally problemati		eded, explain any answe	
SUMMARY OF FINDINGS - Attach site map s	howing samp	oling point lo	cations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes V		is the Sampled .	Area	/
Hydric Soil Present? Yes No		within a Wetlan		No
troniano injeneraj				
Remarks: Dutside Mine unit 7 bound	darl, does	, not ea	clend into	project areas.
VEGETATION – Use scientific names of plant	s.			
	Absolute Domi		Dominance Test wor	
Tree Stratum (Plot size:)	<u> 78 COVEL</u> <u>ODCO</u>		Number of Dominant S That Are OBL, FACW	
1			(excluding FAC-):	(A)
2.			Total Number of Domi	
4.			Species Across All Str	rata: (B)
Sapling/Shrub Stratum (Plot size:)	= Tota	al Cover	Percent of Dominant S That Are OBL, FACW	
1.	- TETT		Prevalence Index wo	rksheet:
2			Total % Cover of:	
3			OBL species	×1= 2
4			FACW species 25	
5	= Tot:	al Cover	FAC species	x3=
Herb Stratum (Plot size: 51 red.us)		/	FACU species 10	x 4 = 40
1. Actropyion Spic mas	<u> U</u>	For	UPL species	x5=
2. Hardiam jubatum	15 -/	- Privil	Column Totals: 3	
3. Verevier anything-aquations	<u> </u>		Prevalence Inde	$ex = B/A = \frac{2 - 7}{2}$
4. Brown techturum			Hydrophytic Vegeta	tion Indicators:
5. Elyssum de Sutirum	10 1	FOLW		
6. Verenzen perchinu	<u></u>	4 2.0 4.1	Prevalence Index	
7			Morphological Ad	daptations ¹ (Provide supporting ks or on a separate sheet)
8			l	rks or on a separate sheet) rophytic Vegetation¹ (Explain)
9			Floblematic Hydr	ophytic vegetation (Expirem)
10	37 Tota		Indicators of hydric s	oil and wetland hydrology must
Woody Vine Stratum (Plot size:	. 	معوضه بدر بدرس	be present, unless di	sturbed or problematic.
1.		,-7-	Hydrophytic	/
2		10000	Hydrophytic Vegetation	
% Bare Ground in Herb Stratum	= l'ota	al Cover	Present?	/es No
		1 11	r -	
Remarks: Small area if hydriphyte veg	Soulmy	sy uplant o	of the very.	
3				

Depth Matrix Redox Features Color (moist) % Type Lo Color (moist) % Type Typ	CLAY LOAM Man Shurfun the
6-4 174R312 90 7.54R4/6 10 C Pl	Hemaks
	- CLAR LOAM Man shrether than
5-20 109R312 90 754R46 10 C R	
5-20 1040 41 0 db 35 40 46 11 C R	CLAY LOAM
10 10 11 00	Jones Se
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sar	nd Grains. ² Location: PL=Pore Lining, M=Matrix.
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR F) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Pepleted Dark Surface (F6) Redox Dark Surface (F7) Redox Depressions (F8) Loamy Gleyed Matrix (F2) Depleted Matrix (F2) Pepleted Dark Surface (F6) High Plains Depressions (F16) MRA 72 & 73 of LRR H)	1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
strictive Layer (if present):	7
Туре:	
Depth (inches):	Hydric Soil Present? Yes No
marks:	
Possific are test on all layer of so	i.

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Field Observations:	Frost-Heave Hummocks (D7) (LRR F)
Surface Water Present? Yes No/ Depth (inches):	/
Water Table Present? Saturation Present? (includes capillary fringe) Yes No Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	I tions), if available:
_	· · · · · · · · · · · · · · · · · · ·
Remarks:	

WETLAND DETERMINATION DATA FORM - Great Plains Region _ Sampling Date: 6/23/ Mine unit 11 city/County. Concluse State: \N\ Sampling Point: _ Martin t Coan M. Coursection, Township, Range: 21 T35N R74W Investigator(s): Local relief (concave, convex, none): C5 CCCC Slope (%): Landform (hillslope, terrace, etc.): 10b. Lat: 42 59 41.38 Long: 105 44 15.35 WDatum: NAD \$ Subregion (LRR): ____ Soil Map Unit Name: KIShorm - DUNIER-ORDM ASSOCIATION NWI classification: "other" Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.) Are Vegetation _____, Soil ____, or Hydrology ____significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ___ Are Vegetation _____, Soil _____, or Hydrology _____naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. No_ Hydrophytic Vegetation Present? Is the Sampled Area ./ No____ Hydric Soil Present? within a Wetland? No Wetland Hydrology Present? Remarks: dramage, pretty extensue VEGETATION - Use scientific names of plants. Dominance Test worksheet: Absolute Dominant Indicator % Cover Species? Status Tree Stratum (Plot size: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): Total Number of Dominant (B) Species Across All Strata: = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: ____ Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = ____ FACW species _____ x 2 = ____ FAC species _____ x 3 = ____ = Total Cover FACU species _____ x 4 = _____ Herb Stratum (Plot size: OB UPL species ____ x 5 = ____ ____ (A) ____ (B) FACW Column Totals: ___ FACU Prevalence Index = B/A = ____ Hydrophytic Vegetation Indicators: Rument Crisnus Dominance Test is >50% Prevalence Index is ≤3.01 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) = Total Cover ¹Indicators of hydric soil and wetland hydrology must Woody Vine Stratum (Plot size: be present, unless disturbed or problematic. Hydrophytic Vegetation = Total Cover Present? % Bare Ground in Herb Stratum ___ Remarks:

Profile Description: (Describe to	the depth needed to document the indicato	r or confir	m the absence of	Sampling Point:
Depth Matrix	Redox Features	or comm	in the absence of	indicators.)
(inches) Color (moist)	% Color (moist) % Type	Loc ²	Texture	Remarks
0-10 Glen 250/106	90 2.517 96 5 C	91	Clay	Nomarks
	Cla 15/100 F PN	M	7.	
	- Sight into 2 KI	(0)	Cay _	
Type: C=Concentration, D=Depleti	on, RM=Reduced Matrix, CS=Covered or Coal	ed Sand G	rains. ² Locatio	on: PL=Pore Lining, M=Matrix.
	e to all LRRs, unless otherwise noted.)		Indicators for	Problematic Hydric Solls ³ :
Histosol (A1)	Sandy Gleyed Matrix (S4)		1 cm Muck	(A9) (LRR I, J)
Histic Epipedon (A2)	Sandy Redox (S5)			rie Redox (A16) (LRR F, G, H)
Black Histic (A3)	Stripped Matrix (S6)			ce (S7) (LRR G)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)		High Plain:	s Depressions (F16)
Stratified Layers (A5) (LRR F)	De Loamy Gleyed Matrix (F2)			outside of MLRA 72 & 73)
1 cm Muck (A9) (LRR F, G, H)Depleted Below Dark Surface (A	Depleted Matrix (F3)			/ertic (F18)
Thick Dark Surface (A12)				t Material (TF2)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7	•	Other (Exp	lain in Remarks)
2.5 cm Mucky Peat or Peat (S2)	Redox Depressions (F8) (LRR G, H) High Plains Depressions (F	16)	Indicators of h	ydrophytic vegetation and
5 cm Mucky Peat or Peat (S3) (L	RR F) (MLRA 72 & 73 of LRF	•		drology must be present,
Restrictive Layer (if present):	(MEIGHT / E & / 5 G) EIGH	11)	uniess disti	urbed or problematic.
Туре:				
Depth (inches):				\oplus
Remarks:			Hydric Soil Pres	sent? Yes 🛨 No
YDROLOGY				
/etland Hydrology Indicators:				
rimary Indicators (minimum of one re	quired; check all that apply)		Secondary in	dicators (minimum of two required)
Surface Water (A1)	Salt Crust (B11)			Soil Cracks (B6)
High Water Table (A2)	Aquatic Invertebrates (B13)			Vegetated Concave Surface (B8)
Saturation (A3)	Hydrogen Sulfide Odor (C1)			Patterns (B10)
Water Marks (B1)	Dry-Season Water Table (C2)			Rhizospheres on Living Roots (C3
Sediment Deposits (B2)	Oxidized Rhizospheres on Livi	ng Roots (0	C3) (where	
Drift Deposits (B3)	(where not tilled)	•		Burrows (C8)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4			n Visible on Aerial Imagery (C9)
2 Iron Deposits (B5)	Thin Muck Surface (C7)			hic Position (D2)
_ Inundation Visible on Aerial Image	ry (B7) Other (Explain in Remarks)			tral Test (D5)
Water-Stained Leaves (B9)				
eld Observations:	~			ave Hummocks (D7) (LRR F)
irface Water Present? Yes	No Depth (inches):			
ater Table Present? Yes		-		
turation Present?	No Depth (inches):	-		
cludes capillary fringe)	No Depth (inches):	. Wetlar	nd Hydrology Pres	sent? Yes <u>(†)</u> No
scribe Recorded Data (stream gauge	e, monitoring well, aerial photos, previous insp	ections) if	available:	
	5 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		= - unu oro,	
marks:				

Section, Township, Range: Carrier Section	Project/Site: Sall Rad / Mine Unit.) Fit. city/c	County:	Sampling Date: 6/23/11
Section Township Range All TAD State Section Township Range All TAD State	Applicant/Owner: Ca We co			State: WY Sampling Point: 8
Local relief (conceive, convex, none)	Application To Killian	Section	on, Township, Ran	ge: 20 T36NR73W
Let: 1057-38 3 1/6 W Log: 42-120, XI N Datum: Note Statum: Note Log: 42-120, XI N Datum: Note	مستنب ماماد		l lt - 4 /	Slone (%): 6
Very Common Com	Landform (hillslope, terrace, etc.):	1at: 105°3	01 27 16W	1000: 43° 41 20. 81"N Datum: Nad 83
Very Continue Co	Subregion (LRR):	Smarley	/	ANAI classification: Not Is tech
Ac Normal Circumstances* present? Yes No No No No No No No No	Soil Map Unit Name: 1110171. Policy	THENDER	/ .:	(Managed in Remarks)
Very egetation Sol	Are climatic / hydrologic conditions on the site typical for the	is time of year? Y	res No_	(If no, explain in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Within a Wetland? Wetland Hydrology Present? Wetland Hydrology Present? Yes No No Within a Wetland? Yes No Within a Wetland?	Are Vegetation, Soil, or Hydrology	significantly distu		
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Wetland Present Stratum (Plot size: Deminant Species That Are OBL, FACW, or FAC (xolding FAC): (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (B) Prevalence Index worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: (B) Prevalence Index worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (B) Prevalence Index worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (B) Prevalence Index worksheet: Total Scover of Multiply by. (B) Species X 1 = FACW species X 2 = FACW species X 2 = FACW species X 3 = FACW species X 3 = FACW species X 4 = UPL species X 5 = Column Totals: (B) Prevalence Index Education (Explain) Prevalence Index S 3.0 Prevale	Are Vegetation, Soil, or Hydrology	naturally problem		
Hydric Soil Present? Wetland Hydrology Present? Yes No No Within a Wetland? Yes No Wetland Hydrology Present? Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Within a Wetland? Yes No Wetland Hydrology Present? Yes No Within a Wetland? Yes No Wetland Hydrology Present? Yes No Wetland? Yes No Within a Wetland? Yes No Wetland? Yes No Wetland? Yes No Within a Wetland? Yes No Wetland? Yes No Wetland? Yes No Wetland? Yes No Wetland? Dominance Test worksheet: That Are OBL, FACW, or FAC (A) (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: (B) Prevalence Index worksheet: Total & Cover of: Multiply by. OBL species x1 = FAC we species x2 = FAC we species x3 = FAC pecies x3 = FAC pecies x3 = FAC pecies x4 = UPL species x5 = Column Totals: (A) (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: Dominance Test worksheet: Total Number of Dominant Species That Are OBL, FACW, or FAC: (A) (B) Prevalence Index worksheet: Total & Cover of: Multiply by. OBL species x4 = UPL species x4 = UPL species x5 = Column Totals: (A) (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: Dominance Test worksheet: That Are OBL, FACW, or FAC: (B) Prevalence Index worksheet: Total & Cover of: Multiply by. OBL species x4 = UPL species x5 = Column Totals: (A) (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: Dominance Test worksheet: That Are OBL, FACW, or FAC: (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: Dominance Test worksheet: That Are OBL, FACW, or FAC: (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: Dominance Test worksheet: That Are OBL, FACW, or FAC: (B) Prevalence Index =	SUMMARY OF FINDINGS – Attach site map	showing san	npling point lo	ocations, transects, important features, etc.
Hydric Soil Present? Yes No Within a Wetland? Yes No No Wetland Hydrology Present? Yes No No Within a Wetland? Yes No No Wetland Hydrology Present? Yes No No Wetland? Yes No Yes Yes No Yes Yes No Yes Yes No Yes No Yes Yes Yes No Yes	Hydrophytic Vegetation Present? Yes	No	Is the Sampled	∆ rea
Vestand Hydrology Present? Ves No No	1	No	within a Wetlan	d? Yes No X
/EGETATION - Use scientific names of plants. Tree Stratum (Plot size:	Wetland Hydrology Present? Yes	No		
Absolute Dominant Indicator Management	Remarks:			
Dominant Indicator				1
Dominance Test worksheet: Dominant Indicator M. Cover Status Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC): (A) (A) (B)	·			
Dominance Test worksheet: Dominant Indicator M. Cover Status Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC): (A) (A) (B)		nte		:
Tree Stratum (Plot size:	VEGETATION – Use scientific names of pla		minent Indicator	Dominance Test worksheet:
That Are OBL, FACW, or FAC (excluding FAC-): (A) That Are OBL, FACW, or FAC (excluding FAC-): (B) Percent of Dominant Species Across All Strata: (B) Percent of Dominant Species That Are OBL, FACW, or FAC: Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FACW species x 3 = FACW species x 4 = Upl. species x 5 = Column Totals: (A) Total % Cover of: Multiply by: OBL species x 3 = FACW species x 4 = Upl. species x 5 = Column Totals: (A) (B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 5 = Column Totals: (A) (B) Prevalence Index = B/A = Upl. species x 5 = Column Totals: (A) (B) Prevalence Index = B/A = Upl. species x 5 = Column Totals: (B) Prevalence Index = SA = Upl. species x 5 = Column Totals: (B) Prevalence Index = B/A = Upl. species x 5 = Column Totals: (C) Morphybitic Vegetation Indicators: Dominance Test is >50% Prevalence Index is S3.0) Prevalence Index is S3.00 Prevale	Tree Stratum (Plot size:			
2. 3. 4. 5. Saplina/Shrub Stratum (Plot size: 1. 2. 3. 4. 5. 5. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	1	-		That Are OBL, FACW, or FAC
Species Across All Stratum Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total & Cover of: Multiply by: OBL species	2			(excluding FAC-):
Species Across All Stratum Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total & Cover of: Multiply by: OBL species x1 = FACW species x2 = FAC species x3 = FACW species x4 = UPL species x5 = UPL species x5 = Column Totals: (A) (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is \$3.0' Prevalence Index is \$3.0' Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Woody Vine Stratum (Plot size: Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Morphological Magnations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Morphological Magnations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Morphological Magnations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Morphological Magnations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Morphological Magnations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Morphological Magnations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Morphological Magnations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Morphological Magnations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Morphological Magnations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Morphological Magnations' (Provide supporting data in Remarks or on a separate sheet) Morphological Magnations' (Provide supporting data in Remarks or on a separ	3			
Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)				Species Across All Strata: (B)
1.			otal Cover	
Total % Cover of: Multiply by: Total % Cover of: Multiply by:				Bravalance Index worksheet:
3. description of the stratum (Plot size: 5' yeding) 1. Yanguan Sorgain of the stratum of the s	2			
FACW species x2 = 5.	3			
Herb Stratum (Plot size: 5' vadius) Total Cover FAC species x 3 =	4.			
Herb Stratum (Plot size: 5 vadius) FACU species X 4 = UPL species X 5 = Column Totals: (A) (B)	5.			
Toricos Societa Toricos Tori	U. t. Olestone (Dietaine) Elucadius	= T	otal Cover I	
2. Arrenous Societies 3. Virinite Original Societies 4. Drivine Societies 5. V Alorecure Societies 6. He with yellow yellow Societies 7. Dominance Test is >50% Prevalence Index is \$3.0¹ Prevalence Index is \$3.0¹ Prevalence Index is \$3.0¹ Prevalence Index is \$3.0¹ Woody Vine Stratum (Plot size: 1. Societies 5. Fact Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is \$3.0¹ Woody Vine Stratum (Plot size: 1. Hydrophytic Vegetation (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No		35 4	Joseph	1
Prevalence Index = B/A =	2 Annaly in Specialist	- 5	- Fac U-	Column Totals: (A) (B)
Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.0' Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Woody Vine Stratum (Plot size: Hydrophytic Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No No	3. Virinian Draws	- 5		Prevalence Index = B/A =
6. How yok ton 7. Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Woody Vine Stratum (Plot size: 1. Hydrophytic Vegetation Present? Yes No No		$-\frac{3}{3+2}$		Hydrøphytic Vegetation Indicators:
7		- }- -		Dominance Test is >50%
8	e. H. Vina Jaston	_ >	<u> 196W</u>	Prevalence Index is ≤3.0¹
9	7			Morphological Adaptations' (Provide supporting
10				
Woody Vine Stratum (Plot size: Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 Hydrophytic Vegetation Present? Yes No				Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum (Plot size: be present, unless disturbed or problematic. 1	10		otat Cover	10.00
1	Woody Vine Stratum (Plot size:)		Mai COACI	indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2 Hydrophytic Vegetation Present? Yes No	- Comment of the Comm			
= Total Cover Present? Yes V No	- minute			
% Bare Ground in Herb Stratum		= To	otal Cover	Present? Yes Vo No
	% Bare Ground in Herb Stratum			
Remarks:				•
Sime bound Supracous in Aven	Some Kerner Juponieus 1-	Aren		

Sampling Point:

Profile Description: (Describe to the depth needed to do	ument the indicator	or confirm	n the absence	of indicators.)
Depth Re	dox Features			•
0) //0.1115	<u>%Type'</u>	_Loc ²	Texture	Remarks
			Clay	12 1055 Storcher - Rut
1-18 189R 4/Z			clay	Sold clay
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, O	CS=Covered or Cools	<u> </u>	21	
Hydric Soil Indicators: (Applicable to all LRRs, unless oth	erwise noted)	a Sana Gr		ation: PL=Pore Lining, M=Matrix.
12.1 . 14.1			parameter 1	for Problematic Hydric Solls ³ :
Sandy	Gleyed Matrix (S4) Redox (S5)			luck (A9) (LRR I, J)
	ed Matrix (S6)		Coast I	Prairie Redox (A16) (LRR F, G, H)
	Mucky Mineral (F1)		Dark Si	urface (S7) (LRR G)
Stratified Layers (A5) (LRR F)	Gleyed Matrix (F2)			ains Depressions (F16)
1 cm Muck (A9) (LRR F, G, H) Deplet	ed Matrix (F3)		Peduce Peduce	R H outside of MLRA 72 & 73) d Vertic (F18)
Depleted Below Dark Surface (A11)	Dark Surface (F6)			rent Material (TF2)
Thick Dark Surface (A12)	ed Dark Surface (F7)			Explain in Remarks)
	Depressions (F8)		3Indicators	of hydrophytic vegetation and
2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High P	lains Depressions (F1	6)	wetland	hydrology must be present,
5 cm Mucky Peat or Peat (S3) (LRR F) (MI	RA 72 & 73 of LRR	H)	unless (disturbed or problematic.
Restrictive Layer (if present):				
Type:				
Don'th (in the sale)				
Depth (inches):			Hydric Soil F	Present? Yes No 🗸
Remarks:			Hydric Soil F	Present? Yes No
Remarks:			Hydric Soil F	Present? Yes No
Remarks:			Hydric Soil F	Present? Yes No
			Hydric Soil F	Present? Yes No V
Remarks: Sil heary Clay-No redays with			Hydric Soil F	Present? Yes No V
Remarks: Sil heary Clay - No redap ville. HYDROLOGY			Hydric Soil F	Present? Yes No V
Remarks: Stil heary Chay - No Yedays ville. IYDROLOGY Wetland Hydrology Indicators:			Hydric Soil F	Present? Yes No
Remarks: Still heavy Clay - No Yedge Ville. IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	v)			
Remarks: Still heavy Chy - No Yedge Villife. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Surface Water (A1) Salt Crust	(B11)		. <u>Secondan</u>	/ Indicators (minimum of two reguired)
Remarks: Sil heary Chy - No Yedap VIIIIL HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Surface Water (A1) High Water Table (A2) Salt Crust Aquatic Inv	(B11) vertebrates (B13)		Secondary Surface	/ Indicators (minimum of two reguired) ce Soil Cracks (B6)
Remarks: Sil heary Chy - No Yoday VIIIL IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Surface Water (A1) Salt Crust High Water Table (A2) Aquatic Inv Saturation (A3) Hydrogen s	(B11) vertebrates (B13) Sulfide Odor (C1)		Secondary Surface	VIndicators (minimum of two required) the Soil Cracks (B6) ely Vegetated Concave Surface (B8)
Remarks: Sil heary Chy - we reduce vitible. IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Surface Water (A1) Salt Crust High Water Table (A2) Aquatic Inv Saturation (A3) Hydrogen S Water Marks (B1)	(B11) vertebrates (B13)		Secondan Surface Spars Draine	v Indicators (minimum of two required) ce Soil Cracks (B6) ely Vegetated Concave Surface (B8) age Patterns (B10)
Remarks: Sill hear Chy - No Young Ville.	(B11) vertebrates (B13) Sulfide Odor (C1) n Water Table (C2)		Secondan Surfac Spars Draine Oxidiz	v Indicators (minimum of two required) ce Soil Cracks (B6) ely Vegetated Concave Surface (B8) age Patterns (B10) ed Rhizospheres on Living Roots (C3)
Remarks: Still heary Chy - we reduce vitible. IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Surface Water (A1) Salt Crust High Water Table (A2) Aquatic Inv Saturation (A3) Hydrogen 3 Water Marks (B1) Dry-Season Sediment Deposits (B2) Oxidized R Drift Deposits (B3) (where n	(B11) vertebrates (B13) Sulfide Odor (C1) n Water Table (C2) hizospheres on Living	g Roots (C	Secondan Surfac Spars Draine Oxidiz (Who	v Indicators (minimum of two required) ce Soil Cracks (B6) ely Vegetated Concave Surface (B8) age Patterns (B10) ed Rhizospheres on Living Roots (C3)
Remarks: Stil heary Chy - No Young Ville. IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply Surface Water (A1) Salt Crust High Water Table (A2) Aquatic Inv Saturation (A3) Hydrogen 3 Water Marks (B1) Dry-Seasol Sediment Deposits (B2) Oxidized R Drift Deposits (B3) (where no Algal Mat or Crust (B4)	(B11) vertebrates (B13) Sulfide Odor (C1) n Water Table (C2) hizospheres on Living ot tilled)	J Roots (C	Secondar Surface Spars Draine Oxidiz 3) (who	Indicators (minimum of two required) Se Soil Cracks (B6) Bely Vegetated Concave Surface (B8) Sige Patterns (B10) Bed Rhizospheres on Living Roots (C3) Sere tilled) Sh Burrows (C8)
Remarks: Stil heary Chy - No Young Ville. IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required: check all that apply Surface Water (A1) Salt Crust High Water Table (A2) Aquatic Inv Saturation (A3) Hydrogen: Water Marks (B1) Dry-Seasol Sediment Deposits (B2) Oxidized R Drift Deposits (B3) (where n Algal Mat or Crust (B4) Presence of Iron Deposits (B5) Thin Muck	(B11) /ertebrates (B13) Sulfide Odor (C1) In Water Table (C2) hizospheres on Living of tilled) If Reduced Iron (C4)	. Roots (C	Secondan Surface Spars Draine Oxidiz Crayfic	v Indicators (minimum of two required) ce Soil Cracks (B6) ely Vegetated Concave Surface (B8) age Patterns (B10) ed Rhizospheres on Living Roots (C3) are tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9)
Remarks: Still hear City - No Young Ville.	(B11) /ertebrates (B13) Sulfide Odor (C1) In Water Table (C2) hizospheres on Living of tilled) If Reduced Iron (C4) Surface (C7)	Roots (C	Secondan Surface Spars Draine Oxidiz Crayfice Satura Geome	v Indicators (minimum of two required) ce Soil Cracks (B6) ely Vegetated Concave Surface (B8) age Patterns (B10) ed Rhizospheres on Living Roots (C3) are tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2)
Remarks: Still hear Chy - No Young Ville.	(B11) /ertebrates (B13) Sulfide Odor (C1) In Water Table (C2) hizospheres on Living of tilled) If Reduced Iron (C4) Surface (C7)	Roots (C	Secondary Surface Spars Draine Oxidiz Crayfic Satura FAC-N	v Indicators (minimum of two required) ce Soil Cracks (B6) ely Vegetated Concave Surface (B8) age Patterns (B10) ed Rhizospheres on Living Roots (C3) ere tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) leutral Test (D5)
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WETLAND DETERMINATION DATA FORM - Great Plains Region ___ Sampling Date: 6/33/1) Project/Site: Smith Rays / Mine Unit | Exp City/County: Convuse Sampling Point: __ Applicant/Owner: Came co Investigator(s): Jon Knodin / Lian Mc (init) Section, Township, Range: 20 TREN P 13W Local relief (concave, convex, none): _____ Slope (%): ____ Lat: 43'4" 6.94" N Long: 105" 38' 37.12" Datum: NAP S Subregion (LRR):___ 🦙 Soil Map Unit Name: HI Land Knubar, Complex. NWI classification: not listed Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes _____ No ___ Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are Vegetation _____Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes ___ Is the Sampled Area Yes _____ No ___ Hydric Soil Present? within a Wetland? No \ Wetland Hydrology Present? Remarks: Brimus species vu normalist VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: % Cover-Species? Status Tree Stratum (Plot size: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): Total Number of Dominant Species Across All Strata: _ = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: Prevalence Index worksheet: Total % Cover of: OBL species FACW species _ FAC species = Total Cover FACU species Herb Stratum (Plot size: UPL species Pour prestasis Column Totals: <u>59</u> (A) Bornes MAPIMELS 30 Drink dechitarin Fac U 30 Azzayeum Spilada Hydrophytic Vegetation Indicators: Dominance Test is >50% 6. Ellism Lesobrom Prevalence Index is ≤3.01 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) ✓ Problematic Hydrophytic Vegetation¹ (Explain) = Total Cover ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Woody Vine Stratum (Plot size: __ Hydrophytic Vegetation = Total Cover Present? % Bare Ground in Herb Stratum

Chent grass about ant

Remarks:

Depth	Matrix		needed to document the indicato		2536110	.,	
(inches) Color (%	Redox Features Color (moist) % Type	Loc ²	Taxture		
0-7 YUYK.		100	Solo (moist) 76 Type	LOC	Texture	Remarks	
		111 -			C/ay	time the granulas	
3-20 104R4	2		CEEDLE. SURFI	-	<u>Cliy</u>	blicky clay-ofish	est for
Type: C=Concentration	, D=Deplet	ion, RM=Red	luced Matrix, CS=Covered or Coal	ed Sand Gr	ains. ² Lo	cation: PL=Pore Lining, M=Ma	trix
ydric Soli Indicators:	(Applicab	ie to all LRR	s, unless otherwise noted.)			for Problematic Hydric Solls	3.
Histosol (A1)			Sandy Gleyed Matrix (S4)		William	Muck (A9) (LRR I, J)	
Histic Epipedon (A2)			Sandy Redox (S5)			Prairie Redox (A16) (LRR F, G	i. H)
Black Histic (A3)			Stripped Matrix (S6)		Dark S	Surface (S7) (LRR G)	, ,
Hydrogen Sulfide (A Stratified Lavers (A5)			Loamy Mucky Mineral (F1)	•		Plains Depressions (F16)	
_ 0.12.1.100 22,013 (70			Loamy Gleyed Matrix (F2)			R H outside of MLRA 72 & 7:	3)
1 cm Muck (A9) (LR	R F, G, H)		Depleted Matrix (F3)		Reduc	ed Vertic (F18)	•
Depleted Below Dark		A11)	Redox Dark Surface (F6)		Red P	arent Material (TF2)	
Thick Dark Surface (Depleted Dark Surface (F7)	Other	(Explain In Remarks)	
Sandy Mucky Minera			Redox Depressions (F8)		³ Indicators	of hydrophytic vegetation and	
2.5 cm Mucky Peat of			— High Plains Depressions (F	16)	wetland	hydrology must be present,	
5 cm Mucky Peat or		LRR F)	(MLRA 72 & 73 of LRF	RH)		disturbed or problematic.	
strictive Layer (If pre	sent):						
Type:					ı		
Depth (inches):					Hydric Soil	Present? Yes No	
Depth (inches):	m at	Tr f	oet hivitem		Hydric Soil	Present? Yes No	<u>~</u>
Depth (inches):	n at	Tr Fi	set history		Hydric Soil	Present? Yes No	<u>~</u>
Depth (inches): marks: 5.		Ar Fi	oct history		Hydric Soli	Present? Yes No	<u>~</u>
Depth (inches): marks: 5	ators:						
Depth (inches): marks: Sill VN; fv DROLOGY otland Hydrology Indicators (minimum)	ators:	equired; chec	ck all that apply)		Seconda	ry Indicators (minimum of two r	
Depth (inches): DROLOGY Stland Hydrology Indicators (minimum of the control of	ators:	equired; chec	ck all that apply) Salt Crust (B11)		Seconda 	ry Indicators (minimum of two r	equire
Depth (inches): marks: Sind Wrife DROLOGY Itland Hydrology Indicators (minimum of the control of the contro	ators:	equired; chec	Sk all that apply) Salt Crust (B11) Aquatic Invertebrates (B13)		Seconda Surfa Spar	ry Indicators (minimum of two r ace Soil Cracks (B6) sely Vegetated Concave Surfa	equire
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WETLAND DETERMINATION DATA FORM – Great Plains Region ___ Sampling Date:__6/23/// Project/Site: Snith Ruch / Mine Unit J FLD. City/County: Converse State: WY Sampling Point: _ Applicant/Owner: Camero Investigator(s): The Knilsy / Light Meline Section, Township, Range: 21 T36N 273W Local relief (concave, convex, none): Concave Slope (%): Landform (hillslope, terrace, etc.): Depression Lat: 43'4 32.20" N Long: 105 37' 86 15" Datum: NAD ET Subregion (LRR): NWI classification: TresLwe tex Encugent Soil Map Unit Name: HERIC HAD AQUEDTS wetlan Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ __ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ______ (If needed, explain any answers in Remarks.) Are Vegetation _____, Soil ____, or Hydrology ____ naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area / No ✓ Hydric Soil Present? Yes within a Wetland? No. Wetland Hydrology Present? Remarks: VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: % Cover Species? Status Tree Stratum (Plot size: _____) Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): Total-Number of Dominant Species Across All Strata: _ = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: Prevalence Index worksheet: Total % Cover of: OBL species 20 x1 = 7a FACW species 16 FAC species = Total Cover FACU species _ Herb Stratum (Plot size: <u>L radius</u>) UPL species La) Haus 1. JUANS Column Totals: 55 Phyliam 3. Hordian Prevalence Index = B/A = fechtum 4. Bromus Hydrophytic Vegetation Indicators: 5. 91145UM describer ____Dominance Test is >50% Voonen ✓ Prevalence Index is ≤3.0¹ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Total Cover ¹Indicators of hydric soil and wetland hydrology must Woody Vine Stratum (Plot size: be present, unless disturbed or problematic. Hydrophytic Vegetation = Total Cover Present? % Bare Ground in Herb Stratum __ Remarks:

Depth	ription: (Describe Matrix	•			ICALUI OF CO	mum the absi	ence of Indi	icators.)		
(inches)	Color (moist)	%	Color (moist)	x Features % T	Type' Lo	c ² Textur		5		
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3 00						- eldi	16-	ier ineli	stric a	E Pelo
ype: C=Cor	ncentration, D=Dep	letion, RM=R	educed Matrix CS	=Covered or	Coated San	d Grains	21 000 11 000			
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Histic Epi				edox (S5)			ast Prairie I			F. G. H)
Black Hist				Matrix (S6)			rk Surface (, , 0,,
	Sulfide (A4) Layers (A5) (LRR F			Mucky Mineral	` '		gh Plains De			
1 cm Mucl	(A9) (LRR F, G, H) \		Bleyed Matrix ((F2)	_	(LRR H ou	tside of ML	RA 72	% 73)
Depleted f	Below Dark Surface	(A11)	Depleted	ark Surface (f	E6)	Re	duced Verti	c (F18)		
	Surface (A12)	(,		Dark Surface			d Parent Ma ner (Explain			
Sandy Mu	cky Mineral (S1)		Redox D			3Indicat	ors of hydro	in Keniaiks inhytic vene	itation a	nd
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	y Peat or Peat (S3)	(LRR F)	.(MLR	A 72 & 73 of	LRR H)	uni	ess disturbe	d or proble	matic.	•••
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	- La grande		-							÷
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Investigator(s): (is Martin & Losan M. (onneil so	ocal relief (concave, convex, none):
	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Area is diskulad, parkially	Is the Sampled Area within a Wetland? Yes No
Wetland indicators weak	, but Passes
1/5 01 1035117	/ +41 5
Tree Stratum (Plot size:	Prevalence Index worksheet: Total % Cover of:
Woody Vine Stratum (Plot size:) 1 2 % Bare Ground in Herb Stratum	Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Remarks: unknown not donument	

Profile Description: (Describe to the dept	h needed to docume	of the indicate		41	Sampling Point:	
Depth <u>Matrix</u>		Features	or contin	m the absence	of indicators.)	
(inches) Color (moist) %	Color (moist)	% Type	Loc ²	Texture	Remarks	
D-15 DH K15/2 85	a.5184/8	15 C	PL	Clay	No other hori	7000
					Visible	
					0 22 0 07	
			-			
Type: C=Concentration, D=Depletion, RM=R	Reduced Matrix, CS=C	Covered or Coal	ed Sand G		officer DI D	
Hydric Soil Indicators: (Applicable to all Li	RRs, unless otherwis	se noted.)	ieu Sanu Gi		ation: PL=Pore Lining, M= for Problematic Hydric Sc	Matrix.
Histosol (A1)	Sandy Gley	ed Matrix (S4)			uck (A9) (LRR I, J)	JIIS .
Histic Epipedon (A2)	Sandy Red			Coast F	Prairie Redox (A16) (LRR F	G H)
Black Histic (A3)	Stripped Ma			Dark St	urface (S7) (LRR G)	, 0, 11)
─ Hydrogen Sulfide (A4) ─ Stratified Layers (A5) (LRR F)		ky Mineral (F1))	High Pla	ains Depressions (F16)	
1 cm Muck (A9) (LRR F, G, H)	Depleted M	yed Matrix (F2)		(LRF	R H outside of MLRA 72 8	73)
Depleted Below Dark Surface (A11)		Surface (F6)			d Vertic (F18)	
Thick Dark Surface (A12)		ark Surface (F7)		rent Material (TF2) Explain in Remarks)	
Sandy Mucky Mineral (S1)	(f) Redox Depr	essions (F8)	,	3Indicators o	of hydrophytic vegetation ar	nd.
2.5 cm Mucky Peat or Peat (S2) (LRR G, F	H) High Plains	Depressions (F		wetland	hydrology must be present	
5 cm Mucky Peat or Peat (S3) (LRR F) estrictive Layer (if present):	(MLRA	72 & 73 of LRR	R H)	unless o	disturbed or problematic.	•
Type:					/	
					/	
Depth (inches):						
Depth (inches):				Hydric Soil P	Present? Yes	No
				Hydric Soil P	Present? Yes	No
				Hydric Soil P	Present? Yes	No
	- - -			Hydric Soil P	Present? Yes	No
emarks:				Hydric Soil P	Present? Yes	No
PROLOGY				Hydric Soil P	Present? Yes	No
DROLOGY otland Hydrology Indicators:	eck all that apply					
PROLOGY otland Hydrology Indicators: mary Indicators (minimum of one required; ch				Secondary	Indicators (minimum of tw	
PROLOGY Ptland Hydrology Indicators: Mary Indicators (minimum of one required; ch Surface Water (A1)	Salt Crust (B11)			Secondary Surface	' Indicators (minimum of tw e Soil Cracks (B6)	o required
PROLOGY Potland Hydrology Indicators: many Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2)	Salt Crust (B11) Aquatic Inverteb	orates (B13)		Secondary Surface Sparse	Indicators (minimum of two se Soil Cracks (B6)	o required
PROLOGY Ptland Hydrology Indicators: Mary Indicators (minimum of one required; ch Surface Water (A1)	Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfic	orates (B13) de Odor (C1)		Secondary Surface Sparse Draina	Indicators (minimum of two se Soil Cracks (B6) ely Vegetated Concave Sur ge Patterns (B10)	o required
PROLOGY Polland Hydrology Indicators: many Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfid Dry-Season Wa	orates (B13) de Odor (C1) ter Table (C2)	ng Roots (C	Secondary Surface Sparse Draina	'Indicators (minimum of tw e Soil Cracks (B6) ely Vegetated Concave Sur ge Patterns (B10) ed Rhizospheres on Living	o required
PROLOGY otland Hydrology Indicators: mary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfic Dry-Season Wa Oxidized Rhizos	orates (B13) de Odor (C1) ter Table (C2) spheres on Livir	ng Roots (C	Secondary Surface Sparse Draina Oxidize (whe	'Indicators (minimum of tw le Soil Cracks (B6) ely Vegetated Concave Sur ge Patterns (B10) ed Rhizospheres on Living pre tilled)	o required
DROLOGY otland Hydrology Indicators: mary Indicators (minimum of one required; ch Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfic Dry-Season Wa Oxidized Rhizos (where not til	orates (B13) de Odor (C1) ter Table (C2) apheres on Livir led)		Secondary Surface Sparse Draina Oxidize Creyfis	Indicators (minimum of two soil Cracks (B6) ely Vegetated Concave Surge Patterns (B10) ed Rhizospheres on Living tilled)	o required face (B8) Roots (C
processits (B2) DROLOGY ptland Hydrology Indicators: mary Indicators (minimum of one required; check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfic Dry-Season Wa Oxidized Rhizos (where not til Presence of Rec	prates (B13) de Odor (C1) ter Table (C2) spheres on Livir led) duced Iron (C4)		Secondary Surface Sparse Draina Coxidize Crayfis Satura	r Indicators (minimum of two less Soil Cracks (B6) lely Vegetated Concave Surge Patterns (B10) led Rhizospheres on Living let tilled) let Burrows (C8) tion Visible on Aerial Image	o required face (B8) Roots (C
DROLOGY otland Hydrology Indicators: mary Indicators (minimum of one required; ch 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)	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfic Dry-Season Wa Oxidized Rhizos (where not til Presence of Rec Thin Muck Surfa	orates (B13) de Odor (C1) ter Table (C2) spheres on Livir led) duced Iron (C4) ace (C7)		Secondary Surface Sparse Oxidize Crayfis Satura Geomo	Indicators (minimum of two se Soil Cracks (B6) sely Vegetated Concave Surge Patterns (B10) sed Rhizospheres on Living one tilled) sh Burrows (C8) tion Visible on Aerial Image orphic Position (D2)	o required face (B8) Roots (C
DROLOGY Indicators: Mary Indicators (minimum of one required; check 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) Water-Stained Leaves (B9)	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfic Dry-Season Wa Oxidized Rhizos (where not til Presence of Rec	orates (B13) de Odor (C1) ter Table (C2) spheres on Livir led) duced Iron (C4) ace (C7)		Secondary Surface Sparse Oxidize Crayfis Satura FAC-N	r Indicators (minimum of two see Soil Cracks (B6) sely Vegetated Concave Surge Patterns (B10) sed Rhizospheres on Living one tilled) she Burrows (C8) tion Visible on Aerial Image or phic Position (D2) seutral Test (D5)	o required rface (B8) Roots (C:
DROLOGY Interpretation (A1) 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) Water-Stained Leaves (B9) d Observations:	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfic Dry-Season Wa Oxidized Rhizos (where not til Presence of Rec Thin Muck Surfa	orates (B13) de Odor (C1) ter Table (C2) spheres on Livir led) duced Iron (C4) ace (C7)		Secondary Surface Sparse Oxidize Crayfis Satura FAC-N	Indicators (minimum of two se Soil Cracks (B6) sely Vegetated Concave Surge Patterns (B10) sed Rhizospheres on Living one tilled) sh Burrows (C8) tion Visible on Aerial Image orphic Position (D2)	o required rface (B8) Roots (C:
DROLOGY otland Hydrology Indicators: mary Indicators (minimum of one required; check 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) Water-Stained Leaves (B9) d Observations: ace Water Present? Yes No	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfic Dry-Season Wa Oxidized Rhizos (where not til Presence of Rec Thin Muck Surfa Other (Explain in	prates (B13) de Odor (C1) ter Table (C2) spheres on Livir led) duced Iron (C4) an Remarks)		Secondary Surface Sparse Oxidize Crayfis Satura FAC-N	r Indicators (minimum of two see Soil Cracks (B6) sely Vegetated Concave Surge Patterns (B10) sed Rhizospheres on Living one tilled) she Burrows (C8) tion Visible on Aerial Image or phic Position (D2) seutral Test (D5)	o required rface (B8) Roots (C:
DROLOGY ptland Hydrology Indicators: mary Indicators (minimum of one required: ch 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) Water-Stained Leaves (B9) d Observations: ace Water Present? Yes No	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfic Dry-Season Wa Oxidized Rhizos (where not til Presence of Rec Thin Muck Surfa Other (Explain in	orates (B13) le Odor (C1) ter Table (C2) spheres on Livir led) duced Iron (C4) ace (C7) a Remarks)		Secondary Surface Sparse Oxidize Crayfis Satura FAC-N	r Indicators (minimum of two see Soil Cracks (B6) sely Vegetated Concave Surge Patterns (B10) sed Rhizospheres on Living one tilled) she Burrows (C8) tion Visible on Aerial Image or phic Position (D2) seutral Test (D5)	o required rface (B8) Roots (C:
DROLOGY Interpretation (A1) Interpretation (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) Water-Stained Leaves (B9) d Observations: ace Water Present? Table Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfic Dry-Season Wa Oxidized Rhizos (where not til Presence of Rec Thin Muck Surfa Other (Explain in Depth (inches): Depth (inches):	orates (B13) de Odor (C1) ter Table (C2) spheres on Livir led) duced Iron (C4) toce (C7) to Remarks)	- - - Wetland	Secondary Surface Sparse Oxidize Crayfis Satura FAC-N Frost-H	r Indicators (minimum of two soil Cracks (B6) ely Vegetated Concave Surge Patterns (B10) ed Rhizospheres on Living tilled) is Burrows (C8) tion Visible on Aerial Image orphic Position (D2) eutral Test (D5) deave Hummocks (D7) (LF	o required rface (B8) Roots (C:
DROLOGY otland Hydrology Indicators: mary Indicators (minimum of one required; check 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) Water-Stained Leaves (B9) d Observations: ace Water Present? Yes No retail Present? Yes No retail Present?	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfic Dry-Season Wa Oxidized Rhizos (where not til Presence of Rec Thin Muck Surfa Other (Explain in Depth (inches): Depth (inches):	orates (B13) de Odor (C1) ter Table (C2) spheres on Livir led) duced Iron (C4) toce (C7) to Remarks)	- - - Wetland	Secondary Surface Sparse Oxidize Crayfis Satura FAC-N Frost-H	r Indicators (minimum of two soil Cracks (B6) ely Vegetated Concave Surge Patterns (B10) ed Rhizospheres on Living tilled) is Burrows (C8) tion Visible on Aerial Image orphic Position (D2) eutral Test (D5) deave Hummocks (D7) (LF	o required rface (B8) Roots (C:
DROLOGY Interpretation (A1) Interpretation (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) Water-Stained Leaves (B9) d Observations: ace Water Present? Table Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No ration Present? Yes No	Salt Crust (B11) Aquatic Invertet Hydrogen Sulfic Dry-Season Wa Oxidized Rhizos (where not til Presence of Rec Thin Muck Surfa Other (Explain in Depth (inches): Depth (inches):	orates (B13) de Odor (C1) ter Table (C2) spheres on Livir led) duced Iron (C4) toce (C7) to Remarks)	- - - Wetland	Secondary Surface Sparse Oxidize Crayfis Satura FAC-N Frost-H	r Indicators (minimum of two soil Cracks (B6) ely Vegetated Concave Surge Patterns (B10) ed Rhizospheres on Living tilled) is Burrows (C8) tion Visible on Aerial Image orphic Position (D2) eutral Test (D5) deave Hummocks (D7) (LF	o required rface (B8) Roots (C

WETLAND DETERMINATION DATA FORM – Great Plains Region Sampling Date: 6/24 Mine Unit & __ city/county: <u>Converse</u> Project/Site: Sm il Sampling Point: 1 Applicant/Owner: _ Camero Investigator(s): 1 ca Markin Flagen McCorroll Section, Township, Range: Local relief (conçave, convex, none): CONCAVC Lat: 43° 03' 11.52" N Long: 105 42' 27, 48" W Datum: Al Al Subregion (LRR): ________ NWI classification: Freshub Soil Map Unit Name: Havernan -Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation _____, Soil _____, or Hydrology ___ (If needed, explain any answers in Remarks.) __naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Yes Wetland Hydrology Present? Remarks: VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC (A) (excluding FAC-): Total Number of Dominant Species Across All Strata: _____ = Total Cover Percent of Dominant Species Sapling/Shrub Stratum (Plot size:____) 10 0_ (A/B) That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = ____ FACW species _____ x 2 = ____ FAC species _____ x 3 = ____ = Total Cover Herb Stratum (Plot size: 5/ Vadiu() FACU species _____ x 4 = _____ ___ x 5 = ___ Horseum Maken Column Totals: _____ (A) ____ (B) 3. Brassicaceae Prevalence Index = B/A = ____ Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.01 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 29 = Total Cover ¹Indicators of hydric soil and wetland hydrology must Woody Vine Stratum (Plot size: be present, unless disturbed or problematic. Hydrophytic Vegetation = Total Cover Present? % Bare Ground in Herb Stratum _ Remarks: dominal pont VIAS

Texture Remarks
110/110/10
² Location: PL=Pore Lining, M=Matrix
. ² Location: PL=Pore Lining, M=Matrix. ndlcators for Problematic Hydric Solis ³ :
1 cm Muck (A9) (LRR I, J)
Coast Prairie Redox (A16) (LRR F, G, H)
Dark Surface (S7) (LRR G)
High Plains Depressions (F16)
(LRR H outside of MLRA 72 & 73)
Reduced Vertic (F18) Red Parent Material (TF2)
Other (Explain in Remarks)
Indicators of hydrophytic vegetation and
wetland hydrology must be present,
unless disturbed or problematic.
_
udda Sall Barranda y (†)
rdric Soil Present? Yes No No
_
Secondary Indicators (minimum of two required
Surface Soil Cracks (B6)
ODBISELV Vegetated Concave Surface (Dav
Sparsely Vegetated Concave Surface (B8)
Drainage Patterns (B10)
Drainage Patterns (B10)Oxidized Rhizospheres on Living Roots (C
 Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (City (where tilled))
 Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C: (where tilled) Crayfish Burrows (C8)
Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C: (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C: (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C: (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C: (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C: (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C: (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C: (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)

Project/Site: Smth / Mine Unit 6	City/0	County: Conv	ierse	Sampling Date: 1,221
			State: W	Sampling Point: #13
Applicant/Owner: Came o Investigator(s): Lisa Mar fin & Losan MC Conn	oQ · Secti	on Townshin Ran	ne: 36 T36N	RTUW
Investigator(s): (See Fee The Fee Fee Fee Fee Fee Fee Fee Fee Fee F	Jana Jana	I relief (noncave c	onvex none). COV	ave slope (%): 0
	Lat: 43°	7310.61" <i>D</i>	Jose: 105° 41'11	.05" W Datum: 15183
Subregion (LRR):				ation: Freshwater Emergen
	'Amplex			
Are climatic / hydrologic conditions on the site typical for this	time of year?	res No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology si	gnificantly distu			present? Yes <u>(f)</u> No
Are Vegetation, Soil, or Hydrologyn	aturally problem	atic? (If nea	eded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map			cations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes No	·	Is the Sampled	Area	
		within a Wetlan	(F)) No
1 ·	·	Within a World		
Remarks: 01-0 - office - un	sure if	natural.,	tree may	be planted,
Will I William		used	to determ	
	not	M250	And Observation	0
VEGETATION Has scientific names of plant	łe			
VEGETATION – Use scientific names of plant		minant Indicator	Dominance Test work	(sheet:
Tree Stratum (Plot size: 201 vadius)		ecies? Status	Number of Dominant S	
1. Populus delloides - Dlanted?	5_		That Are OBL, FACW,	or FAC $\stackrel{?}{\sim}$
2.			(excluding FAC-):	(A)
3.			Total Number of Domin	
4.			Species Across All Str	ata: (B)
Sapling/Shrub Stratum (Plot size:)	= To	otal Cover	Percent of Dominant S That Are OBL, FACW,	
1			Prevalence Index wo	rksheet:
2.			Total % Cover of:	
3				x1=
4.			FACW species	x 2 =
5		adal Causas		x 3 =
Herb Stratum (Plot size: 5' Vading)	=	otal Cover	FACU species	x 4 =
1. Typha latifolia	10	\$\\ 6BL	UPL species	x 5 =
2. Jungus baltions	10	a OBL	Column Totals:	(A) (B)
3. Fleorlais paluctus		W OBL	Prevelence Inde	x = B/A =
4.			Hydrophytic Vegetat	
5			Dominance Test i	
6			Prevalence Index	
7				aptations ¹ (Provide supporting
8			data in Remar	ks or on a separate sheet)
9			Problematic Hydr	ophytic Vegetation¹ (Explain)
10				
Woody Vine Stratum (Plot size:)	30 = To	otal Cover	¹ Indicators of hydric so be present, unless dis	oil and wetland hydrology must turbed or problematic.
1			Hydrophytic	
2.			Vegetation	
% Bare Ground in Herb Stratum	= To	otal Cover	Present? Y	es No
Remarks:				

	iption: (Describe	to the depth	n needed to doc	ment the indicat	or or confir	m the absence o	f indicators.)
Depth (inches)	Matrix Color (moist)	- %		ox Features	1 . 2		
D-1	10/R 4/2	$\frac{-\frac{\%}{2}}{\sqrt{2}}$	Color (moist)		Loc ²	<u>Texture</u>	Remarks
0-15 .	10/12 9/A	<u> 45</u> -	SYR4/6	<u> </u>	<u> </u>	clay	
Type: C=Con	centration, D=Dep	letion RM=R	educed Matrix C	S-Covered or Co	olod Cood C	21 1	
lydric Soll in	dicators: (Applic	able to all LE	Rs unless othe	pulse noted \	ated Sand G		ion: PL=Pore Lining, M=Matrix.
Histosol (A							r Problematic Hydric Solls ³ :
Histic Epip	•			Gleyed Matrix (S4 Redox (S5)	·)		ck (A9) (LRR I, J)
Black Histi				d Matrix (S6)			airie Redox (A16) (LRR F, G, H)
Hydrogen				Mucky Mineral (F	11		face (S7) (LRR G)
	ayers (A5) (LRR F)		Gleyed Matrix (F2			ns Depressions (F16)
	(A9) (LRR F, G, F	•		d Matrix (F3)	,		H outside of MLRA 72 & 73) Vertic (F18)
	Below Dark Surface			Dark Surface (F6)			ent Material (TF2)
	Surface (A12)			d Dark Surface (F			plain in Remarks)
	ky Mineral (S1)		Redox	Depressions (F8)	•		hydrophytic vegetation and
2.5 cm Mu	cky Peat or Peat (S	82) (LRR G, I		ains Depressions	(F16) · · ·		ydrology must be present,
	y Peat or Peat (S3	(LRR F)	(ML	RA 72 & 73 of LF	RR H)		sturbed or problematic.
estrictive Lay	er (if present):						
Type:						1	
. , , ,			_			1	
Depth (inche	(s):		_			Hydric Soil Pr	esent? Yes 🕀 No
Depth (inche	rs):		-			Hydric Soil Pr	esent? Yes <u> </u>
Depth (inche	(s):					Hydric Soil Pr	esent? Yes <u>+</u> No
Depth (inche	(s):					Hydric Soil Pr	esent? Yes <u>+</u> No
Depth (inche emarks:						Hydric Soil Pr	esent? Yes <u>+</u> No
Depth (inche	,					Hydric Soil Pr	esent? Yes <u>+</u> No
Depth (inche emarks: DROLOGY etland Hydrol	logy Indicators:					Hydric Soil Pr	esent? Yes <u>+</u> No
Depth (inche emarks: DROLOGY etland Hydrol mary Indicato	logy Indicators:	e required; ch	neck all that apply				esent? Yes
Depth (inche emarks: DROLOGY otland Hydrol mary Indicato Surface Wal	logy Indicators:	e required; ch	neck all that apply			Secondary	
Depth (inche emarks: DROLOGY etland Hydrol mary Indicato Surface Wal High Water	logy Indicators: rs (minimum of one ter (A1) Table (A2)	e required; ch	Salt Crust			Secondary	indicators (minimum of two require Soil Cracks (B6)
DROLOGY otland Hydrol mary Indicato Surface Wal High Water Saturation (A	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3)	e required; ch	Salt Crust (B11)		Secondary Surface Sparsel	Indicators (minimum of two require Soil Cracks (B6) y Vegetated Concave Surface (B8
DROLOGY otland Hydrol mary Indicato Surface Wal High Water Saturation (Water Marks	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1)	e required; ch	Salt Crust (Apple Aquatic Inv Hydrogen S	B11) ertebrates (B13)		Secondary Surface Sparsel	Indicators (minimum of two require Soil Cracks (B6) y Vegetated Concave Surface (B8 ge Patterns (B10)
DROLOGY otland Hydrol mary Indicato Surface Wal High Water Saturation (A) Water Marks Sediment De	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2)	e required; ch	Salt Crust (A) Aquatic Inv Hydrogen S Dry-Seasor	B11) ertebrates (B13) Sulfide Odor (C1)	•	Secondary Surface Sparsel Drainag Oxidize	indicators (minimum of two require e Soil Cracks (B6) y Vegetated Concave Surface (B8 ge Patterns (B10) d Rhizospheres on Living Roots (C
DROLOGY otland Hydrol mary Indicato Surface Wal High Water Saturation (Water Marks Sediment De	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2)	e required; ch	Salt Crust (A) Aquatic Inv Hydrogen S Dry-Seasor	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2 hizospheres on Li	•	Secondary Surface Sparsel Drainag Oxidize C3) (when	indicators (minimum of two require e Soil Cracks (B6) y Vegetated Concave Surface (B8 ge Patterns (B10) d Rhizospheres on Living Roots (C re tilled)
DROLOGY Potland Hydroi Mary Indicato Surface Wal High Water Saturation (A Water Marks Sediment De Drift Deposit	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) s (B3)	e regulred; ch	Salt Crust (Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2 hizospheres on Li ot tilled)	ving Roots (Secondary Surface Sparsel Drainag Oxidize C3) (where	Indicators (minimum of two require Soil Cracks (B6) y Vegetated Concave Surface (B8 ge Patterns (B10) d Rhizospheres on Living Roots (C re tilled) n Burrows (C8)
Depth (inche emarks: DROLOGY etland Hydrol imary Indicato) Surface Wal High Water) Saturation (i) Water Marks Sediment De Drift Deposit Algal Mat or	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4)	e regulred; ch	Salt Crust (Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2 hizospheres on Li ot tilled) f Reduced Iron (C	ving Roots (Secondary Surface Sparsel Drainag Oxidize C3) (where	Indicators (minimum of two requires: Soil Cracks (B6) y Vegetated Concave Surface (B8) pe Patterns (B10) d Rhizospheres on Living Roots (Cre tilled) n Burrows (C8) on Visible on Aerial Imagery (C9)
Depth (inche emarks: DROLOGY etland Hydrol imary Indicato Surface Wal High Water Saturation (i) Water Marks Sediment De Drift Deposit Algal Mat or	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5)		Salt Crust (Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n Presence o Thin Muck	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2 hizospheres on Li ot tilled) f Reduced Iron (C Surface (C7)	ving Roots (Secondary Surface Sparsel Drainag Oxidize C3) (wher Crayfish Saturati Geomore	Indicators (minimum of two require Soil Cracks (B6) y Vegetated Concave Surface (B8 pe Patterns (B10) d Rhizospheres on Living Roots (C re tilled) n Burrows (C8) on Visible on Aerial Imagery (C9) rphic Position (D2)
Depth (inche emarks: DROLOGY etland Hydrol imary Indicato Surface Wal High Water Saturation (Water Marks Sediment De, Drift Deposit Algal Mat or Iron Deposits	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5)		Salt Crust (Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2 hizospheres on Li ot tilled) f Reduced Iron (C Surface (C7)	ving Roots (Secondary Surface Sparsel Drainag Oxidize C3) (wher Crayfish Saturati Geomore	Indicators (minimum of two requires Soil Cracks (B6) y Vegetated Concave Surface (B8) pe Patterns (B10) d Rhizospheres on Living Roots (Cratilled) n Burrows (C8) on Visible on Aerial Imagery (C9) riphic Position (D2)
Depth (inche emarks: DROLOGY etland Hydrol imary Indicato) Surface Wal) High Water Seturation (/ Water Marks Sediment Deposite Algal Mat or Iron Deposite Inundation V Water-Staine	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) isible on Aerial Ima ed Leaves (B9)		Salt Crust (Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n Presence o Thin Muck	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2 hizospheres on Li ot tilled) f Reduced Iron (C Surface (C7)	ving Roots (Secondary Surface Sparsel Drainag Oxidize C3) (wher Crayfish Saturati Geomore	Indicators (minimum of two require Soil Cracks (B6) y Vegetated Concave Surface (B8 pe Patterns (B10) d Rhizospheres on Living Roots (C re tilled) n Burrows (C8) on Visible on Aerial Imagery (C9) rphic Position (D2)
Depth (inche emarks: DROLOGY etiand Hydrol imary Indicato Surface Wal High Water Saturation (A) Water Marks Sediment Deposits Algal Mat or Iron Deposits Inundation V Water-Staine Id Observation	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) isible on Aerial Ima ed Leaves (B9) ons:	agery (B7)	Salt Crust (A Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n Presence o Thin Muck	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2 hizospheres on Li ot tilled) f Reduced Iron (C Surface (C7) ain in Remarks)	ving Roots (Secondary Surface Sparsel Drainag Oxidize C3) (wher Crayfish Saturati Geomore	Indicators (minimum of two requires Soil Cracks (B6) y Vegetated Concave Surface (B8) pe Patterns (B10) d Rhizospheres on Living Roots (Cratilled) n Burrows (C8) on Visible on Aerial Imagery (C9) riphic Position (D2)
Depth (inche emarks: DROLOGY etland Hydrol imary Indicato Surface Wale High Water Saturation (A Water Marks Sediment Deposits Algal Mat or Iron Deposits Inundation V Water-Staine eld Observation face Water Pr	logy Indicators: rs (minimum of one ter (A1) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) isible on Aerial Imaged Leaves (B9) ons: essent? Yes	agery (B7)	Salt Crust (Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n Presence o Thin Muck Other (Expl	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2) hizospheres on Li of tilled) of Reduced Iron (C) Surface (C7) ain in Remarks)	ving Roots (Secondary Surface Sparsel Drainag Oxidize C3) (wher Crayfish Saturati Geomore	Indicators (minimum of two requires Soil Cracks (B6) y Vegetated Concave Surface (B8) pe Patterns (B10) d Rhizospheres on Living Roots (Cratilled) n Burrows (C8) on Visible on Aerial Imagery (C9) riphic Position (D2)
Depth (inche emarks: DROLOGY etiand Hydroi imary Indicato Surface Walt High Water Saturation (A) Water Marks Sediment Delegosit Algal Mat or Iron Deposits Inundation V Water-Staine Ind Observation Iface Water Presenter Table Presenter Inter Table Presenter Int	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) lisible on Aerial Image d Leaves (B9) ons: eesent? Yes eent? Yes	agery (B7) (F) No _ (D) No _	Salt Crust (Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n Presence o Thin Muck Other (Expl	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2) hizospheres on Li of tilled) f Reduced Iron (C) Surface (C7) ain in Remarks)	ving Roots ((Secondary Surface Sparsel Drainag Oxidize C3) (where Capplish Saturati Geomore FAC-Ne	indicators (minimum of two requires Soil Cracks (B6) y Vegetated Concave Surface (B8) ge Patterns (B10) d Rhizospheres on Living Roots (Centilled) in Burrows (C8) on Visible on Aerial Imagery (C9) riphic Position (D2) sutral Test (D5) eave Hummocks (D7) (LRR F)
Depth (inche emarks: DROLOGY etland Hydrol imary Indicato Surface Wal High Water Saturation (A) Water Marks Sediment Delosit Algal Mat or Iron Deposits Inundation V Water-Staine Id Observation face Water Preservation Preservation	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) fisible on Aerial Imated Leaves (B9) ons: resent? Yes ent? Yes	agery (B7) (F) No _ (D) No _	Salt Crust (Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n Presence o Thin Muck Other (Expl	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2) hizospheres on Li of tilled) f Reduced Iron (C) Surface (C7) ain in Remarks)	ving Roots ((Secondary Surface Sparsel Drainag Oxidize C3) (where Capplish Saturati Geomore FAC-Ne	Indicators (minimum of two requires Soil Cracks (B6) y Vegetated Concave Surface (B8) pe Patterns (B10) d Rhizospheres on Living Roots (Cratilled) n Burrows (C8) on Visible on Aerial Imagery (C9) riphic Position (D2)
Depth (inche emarks: DROLOGY etland Hydrol Mary Indicato Surface Wal High Water Saturation (/ Water Marks Sediment De Drift Deposits Algal Mat or Iron Deposits Inundation V Water-Staine Id Observation face Water Preservation Preservation Indes capillary	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) isible on Aerial Image ad Leaves (B9) ons: eeent? yes eent? yes of fringe)	agery (B7) <u>⊕</u> No _ ⊕ No _	Salt Crust (Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n Presence o Thin Muck Other (Expl	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2) hizospheres on Li of tilled) of Reduced Iron (C) Surface (C7) ain in Remarks) nes):	ving Roots (4	Secondary Surface Sparsel Drainag Oxidize C3) (where C3) Crayfish Geomore FAC-Ne Frost-He	indicators (minimum of two requires Soil Cracks (B6) y Vegetated Concave Surface (B8) ge Patterns (B10) d Rhizospheres on Living Roots (Centilled) in Burrows (C8) on Visible on Aerial Imagery (C9) riphic Position (D2) sutral Test (D5) eave Hummocks (D7) (LRR F)
Depth (inche emarks: DROLOGY etland Hydrol Mary Indicato Surface Wal High Water Saturation (/ Water Marks Sediment De Drift Deposits Algal Mat or Iron Deposits Inundation V Water-Staine Id Observation face Water Preservation Preservation Indes capillary	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) fisible on Aerial Imated Leaves (B9) ons: resent? Yes ent? Yes	agery (B7) <u>⊕</u> No _ ⊕ No _	Salt Crust (Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n Presence o Thin Muck Other (Expl	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2) hizospheres on Li of tilled) of Reduced Iron (C) Surface (C7) ain in Remarks) nes):	ving Roots (4	Secondary Surface Sparsel Drainag Oxidize C3) (where C3) Crayfish Geomore FAC-Ne Frost-He	indicators (minimum of two requires Soil Cracks (B6) y Vegetated Concave Surface (B8) ge Patterns (B10) d Rhizospheres on Living Roots (Centilled) in Burrows (C8) on Visible on Aerial Imagery (C9) riphic Position (D2) sutral Test (D5) eave Hummocks (D7) (LRR F)
Depth (inche emarks: DROLOGY otland Hydrol mary Indicato) Surface Wal) High Water Saturation (/ Water Marks Sediment De Drift Deposits Algal Mat or Iron Deposits Inundation V Water-Staine d Observation face Water Preservation Preservation under Scapillary	logy Indicators: rs (minimum of one ter (A1) Table (A2) A3) s (B1) eposits (B2) s (B3) Crust (B4) s (B5) isible on Aerial Image ad Leaves (B9) ons: eeent? yes eent? yes of fringe)	agery (B7) <u>⊕</u> No _ ⊕ No _	Salt Crust (Aquatic Inv Hydrogen S Dry-Seasor Oxidized R (where n Presence o Thin Muck Other (Expl	B11) ertebrates (B13) Sulfide Odor (C1) n Water Table (C2) hizospheres on Li of tilled) of Reduced Iron (C) Surface (C7) ain in Remarks) nes):	ving Roots (4	Secondary Surface Sparsel Drainag Oxidize C3) (where C3) Crayfish Geomore FAC-Ne Frost-He	indicators (minimum of two requires Soil Cracks (B6) y Vegetated Concave Surface (B8) ge Patterns (B10) d Rhizospheres on Living Roots (Centilled) in Burrows (C8) on Visible on Aerial Imagery (C9) riphic Position (D2) sutral Test (D5) eave Hummocks (D7) (LRR F)



C 14 (14)	_		10000 June 22 201
	°	city/County:Cov	Sampling Date: Mre 22, 201
Applicant/Owner: Camco			State: W Sampling Point: Wetland #14
Investigator(s): Lisa Mouthn & Jon Kniedson	<u></u>	Section, Township, Ran	ge: 35 136N K /4W
Landform (hillslope, terrace, etc.):		Local relief (concave, co	onvex, none): Concare Slope (%):
Subregion (LRR):	Lat: 10	5°41'52.92"W	Long: 43° 2' 56.28" N Datum:
Soil Map Unit Name: Clarkelen - Havee	dad-	BIOWNINGER	(CINCLANCIASSIFICATION: Freshwater Emergent
Are climatic / hydrologic conditions on the site typical for this	time of yea	r? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology sig			Normal Circumstances" present? Yes 🕝 No
Are Vegetation, Soil, or Hydrology na			eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map s			cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes (P) No			
Try ar op my are to get a men		Is the Sampled	
		within a Wetland	163
Remarks:			
Yourely preses ead	Sca	tion	-
La company and the company of plant			
VEGETATION – Use scientific names of plant		Dominant Indicator	Dominance Test worksheet:
. <u>Tree Stratum</u> (Plot size:)	Absolute % Cover	Dominant Indicator Species? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC
2			(excluding FAC-):
3			Total Number of Dominant
4.			Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:)		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:
1			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3.			OBL species 39 x1 = 39
4			FACW species x 2 =
5		= Total Cover	FAC species x 3 =
Herb Stratum (Plot size: 5 ra Aius)		, - Total Gover	FACU species <u>55</u> x 4 = <u>200</u>
1. Phlaum Dratensis	30	4 Faru	FACU species 55 $x4 = 200$ UPL species $x5 = 200$ Column Totals: 94 (A) 259 (B)
2. Juneus balticus	25_	J ORL	Column Totals: 44 (A) 39 (B)
3. Paa pratusis	4.5	- Facu	Prevalence Index = B/A = 2.8
4. Bromus Lectory	7		Hydrophytic Vegetation Indicators:
5. Stipa heleonii	<u>d</u>		Dominance Test is >50%
6			Prevalence Index is ≤3.0¹
7			Morphological Adaptations (Provide supporting
8.			data in Remarks or on a separate sheet)
9			Problematic Hydrophytic Vegetation ¹ (Explain)
10.	-64	= Total Cover	
Woody Vine Stratum (Plot size:)		- Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		20 A	
2			Hydrophytic
		= Total Cover	Vegetation Present? Yes No
% Bare Ground in Herb Stratum			
Remarks: Non-patives grass			•
10011 10011 3.00			

Depth			pth needed to docum		or or contism	ine absence	of indicators	:.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Features % Type	Loc ²	Total		_
0-3	1048 3/1	95	115 VR 5/8	C Type	LOC	Texture Sanda	D 1 /	Remarks
2-11	10 YR 4/2.	95		· 	-	Sardin	Patelis	of sand
2 1 3 1			7,54R 518	· - 5		" · \1	Patoles	of sand mon
19-77	10 YR 5/3	95	7,54 R518	>		Sand		
					_			
								
		*	×					
Type: C=Co	oncentration, D=Depl	etion, RM	=Reduced Matrix, CS:	=Covered or Coa	ted Sand Grai	ns ² Loc	ation: PI -Poi	re Lining, M=Matrix.
Hydric Soil I	ndicators: (Applica	ble to all	LRRs, unless other	wise noted.)	04,14 0,4		for Problema	tic Hydric Solls ³ :
_ Histosol			Sandy Gi	leyed Matrix (S4)			uck (A9) (LRF	
	ipedon (A2)		Sandy Re					(A16) (LRR F, G, H)
Black His	, ,		Stripped			Dark Su	ırface (S7) (L	RR G)
	n Sulfide (A4) Layers (A5) (LRR F)			lucky Mineral (F1)		ains Depressio	
	ck (A9) (LRR F, G, H			leyed Matrix (F2)		(LRF	R H outside o	f MLRA 72 & 73)
Depleted	Below Dark Surface	(A11)	Depleted	ark Surface (F6)		Reduce	d Vertic (F18)	
Thick Da	rk Surface (A12)	(,		Dark Surface (F7	``	- Red Pai	rent Material (TF2)
Sandy Mu	ucky Mineral (S1)		Redox De	epressions (F8)	,	3Indicators o	Explain in Rem	narks) vegetation and
_ 2.5 cm M	ucky Peat or Peat (S	2) (LRR 0		ns Depressions (I	16) · · ·			st be present.
_ 5 cm Muc	ky Peat or Peat (S3)	(LRR F)	(MLR	A 72 & 73 of LRI	R H)		listurbed or pr	
	ayer (if present):						<u> </u>	
Туре:								
Depth (inch	nes):							_
						Hydric Soil P	resent? Ye	es_ (A) No
emarks:						Hydric Soil P	resent? Ye	95 <u>(†)</u> No
emarks:						Hydric Soil F	resent? Ye	es <u>(†)</u> No
emarks:	Ý					Hydric Soil F	resent? Ye	es_ () No
DROLOG	Y ology Indicators:					Hydric Soil F	resent? Ye	es <u>(†)</u> No
DROLOG	ology Indicators:	required:	check all that apply)		~			
DROLOG	ology Indicators: ors (minimum of one	required;		11)	~	Secondary	Indicators (m	ninimum of two requir
DROLOG etland Hydro imary Indicat _ Surface W	ology Indicators: ors (minimum of one ater (A1)	: required;	Salt Crust (B		~	Secondary Surfac	· Indicators (m	ninimum of two requir
DROLOG otland Hydromary Indicat Surface W High Water	ology Indicators: ors (minimum of one ater (A1) r Table (A2)	required;	Salt Crust (B	tebrates (B13)	~	Secondary Surface Sparse	<u>Indicators (m</u> e Soil Cracks	ninimum of two requir (B6) Concave Surface (B
DROLOG etland Hydro mary Indicat Surface W High Water Saturation	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3)	required;	Salt Crust (B' Aquatic Inver Hydrogen Su	tebrates (B13) Ifide Odor (C1)	<u>~</u> .	Secondary Surfac Surfac Paparso	Indicators (m e Soil Cracks ely Vegetated ge Patterns (l	ninimum of two requir (B6) Concave Surface (B B10)
DROLOG ptland Hydro mary Indicat Surface W High Water Saturation Water Mark Sediment D	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2)	required:	Salt Crust (B' Aquatic Inver Hydrogen Sul Dry-Season V	tebrates (B13) Ifide Odor (C1) Water Table (C2)		Secondary Surface Sparse Draina	' Indicators (m le Soil Cracks ely Vegetated ge Patterns (l ed Rhizosphe	ninimum of two requir (B6) Concave Surface (B
DROLOG etland Hydro mary Indicat Surface W High Water Saturation Water Mark Sediment D	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) cs (B1) Deposits (B2) its (B3)	: reauired:	Salt Crust (B' Aquatic Inver Hydrogen Su	tebrates (B13) Iffide Odor (C1) Water Table (C2) zospheres on Livi		Secondary Surfac Sparse Draina Oxidiz (whe	'Indicators (m e Soil Cracks ely Vegetated ge Patterns (l ed Rhizosphe pre tilled)	ninimum of two requir (B6) Concave Surface (B B10) res on Living Roots (
DROLOG etland Hydro mary Indicat Surface W High Water Saturation Water Mark Sediment D	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) cs (B1) Deposits (B2) its (B3)	required;	Salt Crust (B' Aquatic Inver Hydrogen Sul Dry-Season V Oxidized Rhiz (where not	tebrates (B13) Ifide Odor (C1) Water Table (C2) zospheres on Livi tilled)	ng Roots (C3	Secondary Surface Sparse Draina Coxidiz (whe	r Indicators (m le Soil Cracks ely Vegetated ge Patterns (l ed Rhizosphe are tilled) sh Burrows (C	ninimum of two requir (B6) Concave Surface (B B10) res on Living Roots (
DROLOG otland Hydre mary Indicat Surface W High Water Saturation Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) ks (B1) Deposits (B2) its (B3) r Crust (B4)		Salt Crust (B' Aquatic Inver Hydrogen Sul Dry-Season V Oxidized Rhiz	tebrates (B13) Ilfide Odor (C1) Water Table (C2) zospheres on Livi tilled) Reduced Iron (C4	ng Roots (C3	Secondary Surface Sparse Draina Oxidiz Crayfis	r Indicators (m le Soil Cracks ely Vegetated ge Patterns (led Rhizosphe are tilled) sh Burrows (C tion Visible or	ninimum of two requir (B6) Concave Surface (B B10) res on Living Roots (8)
DROLOG otland Hydro mary Indicat Surface W High Water Saturation Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Inundation	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) (S (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) Visible on Aerial Image		Salt Crust (B' Aquatic Inver Hydrogen Sul Dry-Season V Oxidized Rhiz (where not	tebrates (B13) Iffide Odor (C1) Water Table (C2) zospheres on Livi tilled) Reduced Iron (C4)	ng Roots (C3	Secondary Surface Sparse Draina Oxidiz (whate Crayfis Satura Geome	r Indicators (m se Soil Cracks ely Vegetated ge Patterns (l ed Rhizosphe are tilled) sh Burrows (C tion Visible or orphic Position	ninimum of two requir (B6) Concave Surface (B B10) res on Living Roots (8) n Aerial Imagery (C9)
DROLOG ptland Hydra mary Indicat Surface W High Water Saturation Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Inundation Water-Stain	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) (S (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) Visible on Aerial Imaged		Salt Crust (B' Aquatic Inver Hydrogen Sul Dry-Season V Oxidized Rhiz (where not Presence of F	tebrates (B13) Iffide Odor (C1) Water Table (C2) zospheres on Livi tilled) Reduced Iron (C4)	ng Roots (C3	Secondary Surface Sparse Draina Oxidiz Crayfis Satura Geome	r Indicators (m se Soil Cracks ely Vegetated ge Patterns (l ed Rhizosphe ere tilled) sh Burrows (C tion Visible or orphic Position eutral Test (D	ninimum of two requir (B6) Concave Surface (B B10) res on Living Roots (8) n Aerial Imagery (C9) n (D2)
DROLOG otland Hydra mary Indicat Surface W High Water Saturation Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Inundation Water-Stain	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) (S (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) Visible on Aerial Imaged		Salt Crust (B' Aquatic Inver Hydrogen Sul Dry-Season V Oxidized Rhiz (where not Presence of F	tebrates (B13) Iffide Odor (C1) Water Table (C2) zospheres on Livi tilled) Reduced Iron (C4)	ng Roots (C3	Secondary Surface Sparse Draina Oxidiz Crayfis Satura Geome	r Indicators (m se Soil Cracks ely Vegetated ge Patterns (l ed Rhizosphe ere tilled) sh Burrows (C tion Visible or orphic Position eutral Test (D	ninimum of two requir (B6) Concave Surface (B B10) res on Living Roots (8) n Aerial Imagery (C9)
DROLOG otland Hydro mary Indicat Surface W High Water Saturation Water Mark Sediment D Drift Deposi Inundation Water-Stain d Observati	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) cs (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) Visible on Aerial Imaged Leaves (B9) ons:	gery (B7)	Salt Crust (B' Aquatic Inver Hydrogen Sul Dry-Season V Oxidized Rhiz (where not Presence of F Thin Muck Su Other (Explain	tebrates (B13) Iffide Odor (C1) Water Table (C2) zospheres on Livi tilled) Reduced Iron (C4 urface (C7) n in Remarks)	ng Roots (C3	Secondary Surface Sparse Draina Oxidiz Crayfis Satura Geome	r Indicators (m se Soil Cracks ely Vegetated ge Patterns (l ed Rhizosphe ere tilled) sh Burrows (C tion Visible or orphic Position eutral Test (D	ninimum of two requir (B6) Concave Surface (B B10) res on Living Roots (8) n Aerial Imagery (C9) n (D2)
DROLOG etland Hydro mary Indicat Surface W High Water Saturation Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Inundation Water-Stain d Observati face Water F	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) rs (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) Visible on Aerial Imaged Leaves (B9) ons: Present? Yes	gery (B7)	Salt Crust (B' Aquatic Invertible Hydrogen Sultible Dry-Season V Oxidized Rhiz (where not Presence of F Thin Muck Su Other (Explain	tebrates (B13) Iffide Odor (C1) Water Table (C2) zospheres on Livi tilled) Reduced Iron (C4 urface (C7) n in Remarks)	ng Roots (C3	Secondary Surface Sparse Draina Oxidiz Crayfis Satura Geome	r Indicators (m se Soil Cracks ely Vegetated ge Patterns (l ed Rhizosphe ere tilled) sh Burrows (C tion Visible or orphic Position eutral Test (D	ninimum of two requir (B6) Concave Surface (B B10) res on Living Roots (8) n Aerial Imagery (C9) n (D2)
DROLOG etland Hydro imary Indicat Surface W High Water Saturation Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Inundation Water-Stain Id Observati face Water F er Table Prese	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) KS (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) Visible on Aerial Imaged Leaves (B9) lons: Present? Yes ent? Yes	gery (B7) No	Salt Crust (B' Aquatic Inveri- Hydrogen Sul Dry-Season V Oxidized Rhiz (where not Presence of F Thin Muck Su Other (Explain	tebrates (B13) Iffide Odor (C1) Water Table (C2) zospheres on Livi : tilled) Reduced Iron (C4 Irface (C7) In in Remarks) s):s):	ng Roots (C3	Secondary Surface Sparse Draina Coxidiz Crayfis Satura FAC-N Frost-H	r Indicators (m le Soil Cracks ely Vegetated ge Patterns (led Rhizosphe are tilled) sh Burrows (C tion Visible or orphic Position eutral Test (D deave Hummo	ninimum of two require (B6) Concave Surface (BB10) res on Living Roots (BB10) A Aerial Imagery (C9) A (D2)
DROLOG etland Hydro mary Indicat Surface W High Water Saturation Water Mark Sediment D Drift Depos Inundation Water-Stain d Observati face Water F er Table Prese uration Prese udes capillar	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) cs (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) Visible on Aerial Imaged Leaves (B9) lons: Present? Yes_ ent? Yes_ ry fringe)	gery (B7) No No	Salt Crust (B' Aquatic Invertible Hydrogen Sultible Dry-Season V Oxidized Rhiz (where not Presence of F Thin Muck Su Other (Explain Depth (inches	tebrates (B13) Iffide Odor (C1) Water Table (C2) zospheres on Livi tilled) Reduced Iron (C4) Irface (C7) In in Remarks) s): s): s):	ng Roots (C3	Secondary Surface Sparse Sparse Oxidiz Crayfis Satura Geome FAC-N Frost-H	r Indicators (m se Soil Cracks ely Vegetated ge Patterns (l ed Rhizosphe ere tilled) sh Burrows (C tion Visible or orphic Position eutral Test (D	ninimum of two require (B6) Concave Surface (BB10) res on Living Roots (BB10) A Aerial Imagery (C9) A (D2)
DROLOG Delland Hydro mary Indicat Surface W High Water Saturation Water Mark Sediment D Drift Deposi Inundation Water-Stain d Observatiface Water F er Table Prese udes capillar	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) cs (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) Visible on Aerial Imaged Leaves (B9) lons: Present? Yes_ ent? Yes_ ry fringe)	gery (B7) No No	Salt Crust (B' Aquatic Inveri- Hydrogen Sul Dry-Season V Oxidized Rhiz (where not Presence of F Thin Muck Su Other (Explain	tebrates (B13) Iffide Odor (C1) Water Table (C2) zospheres on Livi tilled) Reduced Iron (C4) Irface (C7) In in Remarks) s): s): s):	ng Roots (C3	Secondary Surface Sparse Sparse Oxidiz Crayfis Satura Geome FAC-N Frost-H	r Indicators (m le Soil Cracks ely Vegetated ge Patterns (led Rhizosphe are tilled) sh Burrows (C tion Visible or orphic Position eutral Test (D deave Hummo	ninimum of two require (B6) Concave Surface (BB10) res on Living Roots (BB10) A Aerial Imagery (C9) A (D2)
DROLOG ptland Hydro mary Indicat Surface W High Water Saturation Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Inundation Water-Stain d Observati face Water F er Table Prese udes capillar	ology Indicators: ors (minimum of one ater (A1) r Table (A2) (A3) cs (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) Visible on Aerial Imaged Leaves (B9) lons: Present? Yes_ ent? Yes_ ry fringe)	gery (B7) No No	Salt Crust (B' Aquatic Invertible Hydrogen Sultible Dry-Season V Oxidized Rhiz (where not Presence of F Thin Muck Su Other (Explain Depth (inches	tebrates (B13) Iffide Odor (C1) Water Table (C2) zospheres on Livi tilled) Reduced Iron (C4) Irface (C7) In in Remarks) s): s): s):	ng Roots (C3	Secondary Surface Sparse Sparse Oxidiz Crayfis Satura Geome FAC-N Frost-H	r Indicators (m le Soil Cracks ely Vegetated ge Patterns (led Rhizosphe are tilled) sh Burrows (C tion Visible or orphic Position eutral Test (D deave Hummo	ninimum of two require (B6) Concave Surface (BB10) res on Living Roots (BB10) A Aerial Imagery (C9) A (D2)

Project/Site: Smith / Mine Unit 22/	28 City/County: Co	MULTE Sampling Date: June 39,20
Applicant/Owner: Cambrio		State: WY Sampling Point: 16
Investigator(s): Lise Martin & Ipff Y	elton Section, Township, R	ange: 12 +36 N R74 W
Landform (hillslope, terrace, etc.): manmade. dif		
		N Long: 15°41'36, 26"W Datum: Nocl 83
Soil Map Unit Name: Allical and		NWI classification: wetland
Are climatic / hydrologic conditions on the site typical for the	nis time of year? Yes 🕒 No	
Are Vegetation, Soil, or Hydrology		"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology		eeded, explain any answers in Remarks.)
		locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes P	No Is the Sample	
	No Is the Sample	
l	No Within a Wetla	nd? Yes No
Remarks: Man reall dild for	Cows	1
		/
VEGETATION – Use scientific names of pla		
Tree Stratum (Plot size:)	Absolute Dominant Indicator <u>% Cover Species? Status</u>	Dominance Test worksheet:
1		Number of Dominant Species That Are OBL, FACW, or FAC
2		(excluding FAC-):
3		Total Number of Dominant
4		Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1		Prevalence Index worksheet:
2		Total % Cover of: Multiply by:
4/	/ \;	OBL species x 1 =
5.		FACW species x 2 =
	= Total Cover	FAC species x 3 =
Herb Stratum (Plot size: 5 vadis	7	FACU species x 4 =
1. Carex aquatilis	OBL OBL	UPL species x 5 =
2. Juncus balticus	- 3 OBL	Column Totals: (A) (B)
3. Pro pratursis	- 5 o FACH	Prevalence Index = B/A =
4. Honderm july trin 5. Panisitum laevaotum	- <u>a</u> - <u>OBL</u>	Hydrophytic Vegetation Indicators:
	- 71 FAC	Dominance Test is >50%
	- 35 <u>0 04</u>	Prevalence Index is ≤3.01
7. Medicago Tupilino. 8. Taxonacum officianlo	FACU FACU	Morphological Adaptations¹ (Provide supporting
9. Bromus aponicus	- 5 FACU - 1 FACU	data in Remarks or on a separate sheet)
10. Agrostis Stolonifera	FACT	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:	80 = Total Cover	¹ Indicators of hydric soil and wetland hydrology must
1		be present, unless disturbed or problematic.
2		Hydrophytic
	= Total Cover	Vegetation Yes () No
% Bare Ground in Herb Stratum		Present? Yes No No
Remarks:		

SOIL					Sampling Point:
Profile Description: (Describe to the de	pth needed to docum	nent the indicator of	or confirm	n the absence (of indicators.)
Depth Matrix		k Features			
(inches) Color (moist) %	Color (moist)	% Type ¹	Loc ²	Texture	Remarks
0-3 2.5 y 4/2 100	42			Sand	
1-3-8 10 YR 41 60	5 YR 4/6	15		Clay	Sandy Patcher
3.8	GLEY 1 2.5/N	25		Clay	Sundy Patcher Clay Patcher
8-16 10YR 4/3 15	CLEYZ 10B	20		Sand	Clay Patchee
	75 YR 5/6	15			
4	GLEY 1 2.5/N	50			
¹ Type: C=Concentration, D=Depletion, RN		=Covered or Coate	d Sand Gr	rains ² Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to a			Touris C.		for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy G	leyed Matrix (S4)		1 cm Mi	uck (A9) (LRR I, J)
Histic Epipedon (A2)		edox (S5)		Coast P	Prairie Redox (A16) (LRR F, G, H)
Black Histic (A3)		Matrix (S6)			irface (S7) (LRR G)
Hydrogen Sulfide (A4)		fucky Mineral (F1)			ains Depressions (F16)
Stratified Layers (A5) (LRR F)	⊕ Loamy G ⊕ Depleted	Gleyed Matrix (F2)			R H outside of MLRA 72 & 73)
1 cm Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11)		ark Surface (F6)			d Vertic (F18)
Thick Dark Surface (A12)	_	Dark Surface (F7)			rent Material (TF2) Explain in Remarks)
Sandy Mucky Mineral (S1)		epressions (F8)		3Indicators c	of hydrophytic vegetation and
2.5 cm Mucky Peat or Peat (S2) (LRR		ins Depressions (F1	6)		hydrology must be present,
5 cm Mucky Peat or Peat (S3) (LRR F) (MLR	RA 72 & 73 of LRR	H)		disturbed or problematic.
Restrictive Layer (if present):					
Туре:					_
Depth (inches):				Hydric Soll P	Present? Yes 🛨 No
Remarks:					
Photos : 100_ 1993 50	;1				
100_1994 W					
	: tlanet				
HYDROLOGY					
Wetland Hydrology Indicators:		8			
Primary Indicators (minimum of one require	d; check all that apply)	l		Secondar	y Indicators (minimum of two required)
Surface Water (A1)	Salt Crust (I	B11)		① Surfa	ce Soil Cracks (B6)
High Water Table (A2) Saturation (A3)	Aquatic Inve	ertebrates (B13)			sely Vegetated Concave Surface (B8)
⊕ Saturation (A3)	Hydrogen S	ulfide Odor (C1)		Drain	age Patterns (B10)
Water Marks (B1)		Water Table (C2)		Oxidi:	zed Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	Oxidized Rh	nizospheres on Livir	ig Roots ((C3) (wh	nere tilled)
Drift Deposits (B3)	(where no	ot tilled)		Crayf	ish Burrows (C8)
Algal Mat or Crust (B4)	Presence of	f Reduced Iron (C4)		Satur	ation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	Thin Muck S	3urface (C7)		⊕ Geom	norphic Position (D2)
Inundation Visible on Aerial Imagery (B	37) <u> </u>	ain in Remarks)			Neutral Test (D5)
Water-Stained Leaves (B9)				Frost-	Heave Hummocks (D7) (LRR F)
Field Observations:					
	No Depth (inch	_	-		
	No Depth (inch		-		
Saturation Present? Yes (Includes capillary fringe)	No Depth (inch	nes): 12	_ Wetla	and Hydrology	Present? Yes 🔑 No
Describe Recorded Data (stream gauge, mo	onitoring well, aerial ph	otos, previous insp	ections), i	if available:	
Remarks:					

Project/Site: Snut! / Mine Unit 22/ Applicant/Owner: Cameco Investigator(s): Lizz Martin & Jeff Y Landform (hillslope, terrace, etc.): manmode dit Subregion (LRR): G Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for the Vegetation, Soil, or Hydrology Are Vegetation, Soil, or Hydrology	Section, Township, Ra Local relief (concave, Lat: U3°06' 37,57"/ his time of year? Yes No significantly disturbed? Are	State: W Sampling Point: 6
SUMMARY OF FINDINGS – Attach site map	showing sampling point l	ocations, transects, important features, etc.
Hydric Soil Present? Yes 🙀	No Is the Sampled within a Wetlan	
VEGETATION – Use scientific names of pla		
<u>Tree Stratum</u> (Plot size:) 1 2		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): (A)
3 4		Total Number of Dominant Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:) 1.	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
2		Prevalence Index worksheet:
3.		Total % Cover of: Multiply by:
4/		OBL species x 1 =
5		FACW species x 2 =
51 makes	= Total Cover	FAC species x 3 =
Herb Stratum (Plot size: 5' vadis)	DE @ OBL	FACU species x 4 =
1. Carex aquatilis	- OBL	UPL species x 5 =
2. Juncus balticus 3. Poo malusic	15 o FAIL	Column Totals: (A) (B)
4. Under Julyatum	3 OBL	Prevalence Index = B/A =
5. pausitum Jaevaotum	7i FAC	Hydrophytic Vegetation Indicators:
6. Scrpus numarins	25 m 08	Dominance Test is >50%
7. Medicago lyalina	3 FACU	Prevalence Index is ≤3.0¹
8. Tovoracym officianto	5 FACU	Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
9. Bromus japonicus	<\ FACU	Problematic Hydrophytic Vegetation¹ (Explain)
10. <u>Agrostis</u> Stolonifura	FAC+	
Woody Vine Stratum (Plot size:	RO = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		Hydrophytic
	= Total Cover	Vegetation
% Bare Ground in Herb Stratum		Present? Yes No
Remarks:		

SOIL					Sampling Point:			
Profile Description: (Describe to the de	oth needed to docum	ent the indicator of	or confirm	the absence				
DepthMatrix		Features			,			
(inches) Color (moist) %	Color (moist)	% Type	Loc ²	Texture	Remarks			
0-3 2.5 y 4/2 100				sand				
1 2-8 10 YR VI 60	5 YR 4/6	15		Clay	Sandy Patcher			
7 3.8	GLEY 1 2.5/N	25		Clay	,			
8-16 10YR 4/3 15	GLEYZ 5/10B	20		Sand	Clay Patchee			
	7.5 YR 5/6	15			-ity idience			
	11-1 25/							
	GLEY 1 /N	50						
Transport Control of the Control of								
¹ Type: C=Concentration, D=Depletion, RM Hydric Soil Indicators: (Applicable to all	=Reduced Matrix, CS=	=Covered or Coated	Sand Gr		ation: PL=Pore Lining, M=Matrix.			
Histosol (A1)					for Problematic Hydric Soils ³ :			
Histic Epipedon (A2)	Sandy Gr Sandy Re	leyed Matrix (S4)			uck (A9) (LRR I, J)			
Black Histic (A3)		Matrix (S6)			Prairie Redox (A16) (LRR F, G, H) Irface (S7) (LRR G)			
Hydrogen Sulfide (A4)		lucky Mineral (F1)			ains Depressions (F16)			
Stratified Layers (A5) (LRR F)		leyed Matrix (F2)			R H outside of MLRA 72 & 73)			
1 cm Muck (A9) (LRR F, G, H)		Matrix (F3)			d Vertic (F18)			
Depleted Below Dark Surface (A11)	Redox Da	ark Surface (F6)			rent Material (TF2)			
Thick Dark Surface (A12)	Depleted	Dark Surface (F7)			Explain in Remarks)			
Sandy Mucky Mineral (S1)	_⊕ Redox De	epressions (F8)		³ Indicators o	f hydrophytic vegetation and			
2.5 cm Mucky Peat or Peat (S2) (LRR (ns Depressions (F1	•		hydrology must be present,			
5 cm Mucky Peat or Peat (S3) (LRR F) Restrictive Layer (if present):	(MLR	A 72 & 73 of LRR	H)	unless	disturbed or problematic.			
_ , , , ,								
Type:								
Depth (inches):				Hydric Soil F	Present? Yes 🕀 No			
Remarks:								
Photos 100 1998 5:1								
Photos 1 100 _ 1993 Soi	1							
Photos : 100_1993 Soi								
100_1994 We								
100_1994 We								
100_ 1994 WE HYDROLOGY	tlane(Secondar	V Indicators (minimum of two required)			
HYDROLOGY Wetland Hydrology Indicators:	tional				y Indicators (minimum of two required)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required)	Hance check all that apply) Salt Crust (B	311)		① Surfa	ce Soil Cracks (B6)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required — Surface Water (A1)	Hance	311) ertebrates (B13)		Surfa Spars	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	tional	311) ertebrates (B13) ulfide Odor (C1)		① Surfa ② Spars ② Drain	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required — Surface Water (A1) — High Water Table (A2) — Saturation (A3)	: check all that apply)	B11) ortebrates (B13) ulfide Odor (C1) Water Table (C2)	g Roots ((⊕ Surfa □ Spars □ Drain □ Oxidi	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required — Surface Water (A1) — High Water Table (A2) — Saturation (A3) — Water Marks (B1)	: check all that apply)	311) ortebrates (B13) ulfide Odor (C1) Water Table (C2) izospheres on Livin	g Roots ((Surfa Spars Drain Oxidi:	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) ere tilled)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required — Surface Water (A1) — High Water Table (A2) ① Saturation (A3) — Water Marks (B1) — Sediment Deposits (B2)	check all that apply)	311) ortebrates (B13) ulfide Odor (C1) Water Table (C2) izospheres on Livin		Surfa Surfa Spars Drain Oxidi: (Wf-	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) ere tilled) ish Burrows (C8)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required — Surface Water (A1) — High Water Table (A2) ① Saturation (A3) — Water Marks (B1) — Sediment Deposits (B2) — Drift Deposits (B3)	check all that apply)	B11) Intebrates (B13) Intebrates (B13) Interpretation (C1) Water Table (C2) Izospheres on Livin Int tilled) Reduced Iron (C4)		Surfa Spars Drain Oxidi: C3) (wf Crayf	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) aere tilled) ish Burrows (C8) ation Visible on Aerial Imagery (C9)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required — Surface Water (A1) — High Water Table (A2) ⊕ Saturation (A3) — Water Marks (B1) — Sediment Deposits (B2) — Drift Deposits (B3) Algal Mat or Crust (B4)	check all that apply) Salt Crust (Baracian Aquatic Inveation of the control o	B11) Intebrates (B13) Intebrates (B13) Interpretation (C1) Water Table (C2) Izospheres on Livin Int tilled) Reduced Iron (C4) Surface (C7)		Surfa Spars Drain Oxidi: C3) (wh Crayf Satur Geom	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) ish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required — Surface Water (A1) — High Water Table (A2) ④ Saturation (A3) — Water Marks (B1) — Sediment Deposits (B2) — Drift Deposits (B3) Algal Mat or Crust (B4) — Iron Deposits (B5)	check all that apply) Salt Crust (Baracian Aquatic Inveation of the control o	B11) Intebrates (B13) Intebrates (B13) Interpretation (C1) Water Table (C2) Izospheres on Livin Int tilled) Reduced Iron (C4) Surface (C7)		Surfa Spars Drain Oxidi: C3) (wt Crayf Satur Geom	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) ish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2) Neutral Test (D5)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required — Surface Water (A1) — High Water Table (A2) ④ 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)	check all that apply) Salt Crust (Baracian Aquatic Inveation of the control o	B11) Intebrates (B13) Intebrates (B13) Interpretation (C1) Water Table (C2) Izospheres on Livin Int tilled) Reduced Iron (C4) Surface (C7)		Surfa Spars Drain Oxidi: C3) (wt Crayf Satur Geom	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) ish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 Water-Stained Leaves (B9) Field Observations:	check all that apply) Salt Crust (Baracian Aquatic Inveation of the control o	B11) Interretates (B13) Interretates (B13) Interretates (C1) Water Table (C2) Izospheres on Livin Int tilled) Reduced Iron (C4) Interretates (C7) Interretates (C7) Interretates (C7) Interretates (C7)		Surfa Spars Drain Oxidi: C3) (wt Crayf Satur Geom	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) ish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2) Neutral Test (D5)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes N	check all that apply) Salt Crust (E	B11) Intebrates (B13) Intebrates (B13) Intebrates (C1) Water Table (C2) Izospheres on Livin Int tilled) Reduced Iron (C4) Interpretation in Remarks) es):		Surfa Spars Drain Oxidi: C3) (wt Crayf Satur Geom	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) ish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2) Neutral Test (D5)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes P	Check all that apply) Salt Crust (Barana Survey) Aquatic Inveation Hydrogen Survey Dry-Season Oxidized Rhi (where no Presence of Thin Muck Survey Other (Explain Depth (inchilo Depth (inc	at1) Interreprete (B13)	-	Surfa Spars Drain Oxidi: C3) C3) C4 Crayf Satur Geon FAC- Frost	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) sish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2) Neutral Test (D5) Heave Hummocks (D7) (LRR F)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes Naturation Present? (includes capillary fringe)	Check all that apply) Salt Crust (E	and state of the s	- - - Wetla	Surfa Spars Drain Oxidi C3) C3 C4 C5 C5 C5 C6 C7 C7 C7 C8 C7 C7 C8 C9 C9 C9 C7	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) ish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2) Neutral Test (D5)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes P	Check all that apply) Salt Crust (E	and state of the s	- - - Wetla	Surfa Spars Drain Oxidi C3) C3 C4 C5 C5 C5 C6 C7 C7 C7 C8 C7 C7 C8 C9 C9 C9 C7	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) sish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2) Neutral Test (D5) Heave Hummocks (D7) (LRR F)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes Naturation Present? Yes Naturation Present? Yes Naturation Present? Yes Naturation Present? Nescribe Recorded Data (stream gauge, more	Check all that apply) Salt Crust (E	and state of the s	- - - Wetla	Surfa Spars Drain Oxidi C3) C3 C4 C5 C5 C5 C6 C7 C7 C7 C8 C7 C7 C8 C9 C9 C9 C7	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) sish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2) Neutral Test (D5) Heave Hummocks (D7) (LRR F)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes Naturation Present? (includes capillary fringe)	Check all that apply) Salt Crust (E	and state of the s	- - - Wetla	Surfa Spars Drain Oxidi C3) C3 C4 C5 C5 C5 C6 C7 C7 C7 C8 C7 C7 C8 C9 C9 C9 C7	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) sish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2) Neutral Test (D5) Heave Hummocks (D7) (LRR F)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes Naturation Present? Yes Naturation Present? Yes Naturation Present? Yes Naturation Present? Nescribe Recorded Data (stream gauge, more	Check all that apply) Salt Crust (E	and state of the s	- - - Wetla	Surfa Spars Drain Oxidi C3) C3 C4 C5 C5 C5 C6 C7 C7 C7 C8 C7 C7 C8 C9 C9 C9 C7	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) sish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2) Neutral Test (D5) Heave Hummocks (D7) (LRR F)			
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required 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 Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes Naturation Present? Yes Naturation Present? Yes Naturation Present? Yes Naturation Present? Nescribe Recorded Data (stream gauge, more	Check all that apply) Salt Crust (E	and state of the s	- - - Wetla	Surfa Spars Drain Oxidi C3) C3 C4 C5 C5 C5 C6 C7 C7 C7 C8 C7 C7 C8 C9 C9 C9 C7	ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) age Patterns (B10) zed Rhizospheres on Living Roots (C3) sere tilled) sish Burrows (C8) ation Visible on Aerial Imagery (C9) norphic Position (D2) Neutral Test (D5) Heave Hummocks (D7) (LRR F)			

Project/Site: Smith/Mine Unit 21	,	City of Case and	u Conve	erse Sampling Date: _6-29-11
Applicant/Owner: Camero		Jily/Couri	ty: <u></u>	State: W / Sampling Point:
Investigator(s): Lisa Markin & Bons Meth	710	Cootion T	aunchin De	
Landform (hillslope, terrace, etc.): SIGH dep 155/2			• •	
_				Mong: 105° 42' 14', W'W Datum: Walk 3
Subregion (LRR): 6 Soil Map Unit Name: CAM De IA - 1/15/1/1				NWI classification: wetawa
		-	_	
Are climatic / hydrologic conditions on the site typical for this				
Are Vegetation, Soil, or Hydrology s				'Normal Circumstances" present? Yes 🛖 No
Are Vegetation, Soil, or Hydrology n	naturally prol	blematic?	(If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampli	ng point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N	o	10.0	iba Dammiad	l Anna
Hydric Soil Present? Yes N	o <u>(=)</u>		the Sampled thin a Wetlan	
Wetland Hydrology Present? Yes N	°		THE TOTAL	10310
Remarks:				
Photo 10 100-1997				,
VEGETATION – Use scientific names of plan	ts.			
Trace Oheahara / (Dieh sires	Absolute		nt Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:) 1		Species	? Status	Number of Dominant Species That Are OBL, FACW, or FAC
2.				(excluding FAC-):
3				Total Number of Dominant
4.				Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:)		= Total C	cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1				Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
4.				OBL species x 1 =
5.				FACW species x 2 =
51		= Total C	Cover	FAC species x 3 =
Herb Stratum (Plot size: 5' tadins)	15	\oplus	061	FACU species x 4 =
1. <u>tleathorus</u> ociallaris 2. Branus la ponicus	_جے_	<u> </u>	FACU	UPL species x 5 = Column Totals: (A) (B)
3. Mysum caserton	· 13		TACA	Codmit rotals. (A)
4. Por secunda	3			Prevalence Index = B/A =
5. Hadema - in in a train	Ĭ.		OBL	Hydrophytic Vegetation Indicators:
6. Jonanica parlatina			FACW	Dominance Test is >50%
7.	. <u> </u>			Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation¹ (Explain)
10	7			
Woody Vine Stratum (Plot size:) 1	3)	= Total C	over	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.				Hydrophytic
		= Total C	over	Vegetation Present? Yes No No
% Bare Ground in Herb Stratum		···		
Remarks:				

	Matrix	•	needed to docum	Features				or maroator or,	
Depth (inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-6	10 YR 4/2	100	-	_		_	ClarLogn	Blocky Stoneture	
6-12	10YR 4/2	100	_	_				Very Hard Packed	,
	10/K / E						Clay	VERY MAIN ACKEN	
	oncentration, D=Dep					d Sand G		ation: PL=Pore Lining, M=Mat	ix.
Histosol Histic Ep Black Hi Hydroge Stratified 1 cm Mu Depleted Thick De Sandy M 2.5 cm M	oipedon (A2)	F) H) ee (A11) (S2) (LRR G, H	Sandy G Sandy R Stripped Loamy M Loamy G Pepleted Redox D Redox D High Plai	leyed Mat edox (S5) Matrix (S6 Mucky Mine Sleyed Mat I Matrix (Fi ark Surfac I Dark Surfac epression:	rix (S4) 6) eral (F1) trix (F2) 3) ce (F6) face (F7) s (F8) ssions (F1		1 cm M Coast F Dark Si High Pl	for Problematic Hydric Soils of Land (A9) (LRR I, J) Prairie Redox (A16) (LRR F, G, our face (S7) (LRR G) ains Depressions (F16) R H outside of MLRA 72 & 73 and Vertic (F18) rent Material (TF2) Explain in Remarks) of hydrophytic vegetation and hydrology must be present, disturbed or problematic.	H)
Restrictive L Type: Depth (inc Remarks:	ayer (if present):	extremely	- hard	padi	Risk.		Hydric Soil I	Present? Yes No	P
Restrictive I Type: Depth (inc Remarks:	ches):	extremely	- havd	padi	Ærsk		Hydric Soil I	Present? Yes No	Đ
Restrictive I Type: Depth (inc Remarks:	ches):		- havd	psdi	RIS.		Hydric Soil I	Present? Yes No	Ð
Restrictive I Type: Depth (inc Remarks: YDROLO Wetland Hyc Primary Indic Surface V High Wat Saturation Water Mater	ches):	one required; ch) B11) ertebrates Sulfide Odd i Water Ta hizosphere ot tilled) f Reduced Surface (C	(B13) or (C1) able (C2) es on Livir I Iron (C4)		Secondal Surfa Spar Spar Coxidi (C3) (wl Cray Satul Geor	Present? Yes No Py Indicators (minimum of two rates Soil Cracks (B6) sely Vegetated Concave Surfatage Patterns (B10) ized Rhizospheres on Living Rates Burrows (C8) ration Visible on Aerial Imagery morphic Position (D2) Neutral Test (D5) Heave Hummocks (D7) (LRF	equired ce (B8) pots (C
Type:	GY Grology Indicators: ators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial I ained Leaves (B9)	one required; ch	Salt Crust (Salt Crust (Aquatic Inv. Hydrogen S Dry-Seasor Oxidized RI (where no) B11) ertebrates Sulfide Odd i Water Ta hizosphere ot tilled) f Reduced Surface (C	(B13) or (C1) able (C2) es on Livir I Iron (C4)		Secondal Surfa Spar Spar Coxidi (C3) (wl Cray Satul Geor	ry Indicators (minimum of two race Soil Cracks (B6) sely Vegetated Concave Surfa nage Patterns (B10) ized Rhizospheres on Living R here tilled) fish Burrows (C8) ration Visible on Aerial Imagery morphic Position (D2)	equired ce (B8) coots (C
Restrictive I Type: Depth (inc Remarks: YDROLO Wetland Hyc Primary Indic Surface V High Wa: Saturation Water M: Sedimen Drift Dep Algal Ma Iron Dep: Inundation	ches): Ches):	magery (B7)	Salt Crust (Salt Crust (Aquatic Inv. Hydrogen S Dry-Seasor Oxidized Ri (where no Presence o Thin Muck s Other (Expl) B11) ertebrates Sulfide Odd n Water Ta hizosphere ot tilled) f Reduced Surface (C ain in Rem	(B13) or (C1) able (C2) es on Livir I Iron (C4) c7) narks)		Secondal Surfa Spar Spar Coxidi (C3) (wl Cray Satul Geor	ry Indicators (minimum of two race Soil Cracks (B6) sely Vegetated Concave Surfa nage Patterns (B10) ized Rhizospheres on Living R here tilled) fish Burrows (C8) ration Visible on Aerial Imagery morphic Position (D2)	equired ce (B8) coots (C
Type:	ches): Ches):	magery (B7) es No _ es No _	Salt Crust (Salt Crust (Aquatic Inv. Hydrogen S Dry-Seasor Oxidized Ri (where n. Presence o Thin Muck s) B11) ertebrates Sulfide Odd n Water Ta hizosphere of tilled) f Reduced Surface (C ain in Ren	(B13) or (C1) able (C2) es on Livir I Iron (C4) c7) narks)		Secondal Surfa Spar Spar Coxidi (C3) (wl Cray Satul Geor	ry Indicators (minimum of two race Soil Cracks (B6) sely Vegetated Concave Surfa nage Patterns (B10) ized Rhizospheres on Living R here tilled) fish Burrows (C8) ration Visible on Aerial Imagery morphic Position (D2)	equired ce (B8) coots (C

Robbly only wet for very short pendes of time

Project/Site: Smith / Mine Unit 15A	City/County: Conu	exe Sampling Date: June 29,201
Applicant/Owner: Comeco		State: W Sampling Point: 18
Investigator(s): Lisa Martin & Bons Yelton	Section Township Ran	ge: 11 735N R74W
Landform (hillslope, terrace, etc.): dvainage		onvex, none): Concaul Slope (%):
Subregion (LRR): 6	12: 43º01 15.61"N	Long: 105-43143,85" Datum:
Soil Map Unit Name: Haver-dad - Lonymil		NWI classification: Wetland
11		
Are climatic / hydrologic conditions on the site typical for this tir		
Are Vegetation, Soil, or Hydrology sign		Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology natu	rally problematic? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	owing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No _	I IS LITE SALIDIEU	Area
	within a Wetland	d? Yes <u>(+)</u> No
Wetland Hydrology Present? Yes No		
Remarks: Small drainage with an	earther dam	- Stock pond, non-
rative veg, dominant.	Non-native veg	difficult
nature virgi gonunari	00.11.11	
VEGETATION – Use scientific names of plants.		
	bsolute Dominant Indicator	Dominance Test worksheet:
	6 Cover Species? Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC (excluding FAC-):
3		Total Number of Dominant
4		Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1		Prevalence Index worksheet:
2		Total % Cover of: Multiply by:
4		OBL species x 1 =
5.		FACW species x 2 =
	= Total Cover	FAC species x 3 =
Herb Stratum (Plot size: 5' radius)	20 0 5 11	FACU species x 4 =
1. Romus inponicus	10 A Facu	UPL species x 5 =
2. Bromus techorum	2	Column Totals: (A) (B)
3. Hordeum jubatum	<1061	Prevalence Index = B/A =
5.		Hydrophytic Vegetation Indicators:
6		Dominance Test is >50%
7		Prevalence Index is ≤3.01
8		Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
9		Problematic Hydrophytic Vegetation¹ (Explain)
10		Problematic Plydrophysic regetation (Explain)
Woody Vine Stratum (Plot size:)	95 = Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		Hydrophytic
4.	= Total Cover	Venetation
% Bare Ground in Herb Stratum	- 1001 00101	Present? Yes No
Remarks: Non native - so di miduophytic ung world	ifficially to	establish whether
/ Introduction	A time track and to sail . At of	-

Consulin -	Datate	
Sampling	POINT:	

Depth Matrix		x Feature:	s		•
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-3 10YR 3/2 98	7.5 YR 5/5			PL	ClayLoam
3-7 10YR 1/2 90	7.5 YR 3/3	10		PL	ClayLong
2-15 2.54 4/2 70	7.5 YR 3/8	36		12	Claylan
	c				
¹Type: C=Concentration, D=Depletion, RM				d Sand G	
Hydric Soil Indicators: (Applicable to all			-		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy (•			1 cm Muck (A9) (LRR I, J)
Histic Epipedon (A2)	Sandy F				Coast Prairie Redox (A16) (LRR F, G, H)
Black Histic (A3)		Matrix (S			Dark Surface (S7) (LRR G)
- Hydrogen Sulfide (A4)	Loamy I	_			High Plains Depressions (F16)
Stratified Layers (A5) (LRR F)	Loamy (-			(LRR H outside of MLRA 72 & 73)
1 cm Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11)	Bedox [d Matrix (F			Reduced Vertic (F18)
Thick Dark Surface (A12)		d Dark Suna			Red Parent Material (TF2)
Sandy Mucky Mineral (S1)	~ ·	Dark Sui Depression		,	Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and
2.5 cm Mucky Peat or Peat (S2) (LRR (•	. ,	16\	
5 cm Mucky Peat or Peat (S3) (LRR F)		RA 72 & 7		,	wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if present):	(=		0 01 1111	,	dilicas disturbed of problematic.
Type:					
Depth (inches):	···				Hydric Soil Present? Yes 🕦 No
Remarks:					Hydric Soil Present? Yes No
Nemarks.					_
					7
					\
HYDROLOGY					
Wetland Hydrology Indicators:	t check all that apply	Δ.			Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required					Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1)	Salt Crust	(B11)	(040)		Surface Soil Cracks (B6)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2)	Salt Crust Aquatic Inv	(B11) vertebrates			Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) Surface Water (A1) High Water Table (A2) Saturation (A3)	Salt Crust Aquatic Inv	(B11) /ertebrates Sulfide Od	lor (C1)		Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Salt Crust Aquatic Inv Hydrogen S	(B11) vertebrates Sulfide Od n Water Ta	lor (C1) able (C2)		 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3)
Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Salt Crust Aquatic Inv Hydrogen S Dry-Seaso Oxidized R	(B11) vertebrates Sulfide Od n Water Ta thizospher	lor (C1) able (C2)		Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (C3) (where tilled)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Salt Crust Aquatic Inv Hydrogen S Dry-Seaso Oxidized R (where n	(B11) vertebrates Sulfide Od n Water Ta hizospher not tilled)	lor (C1) able (C2) es on Liv	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (Where tilled) Crayfish Burrows (C8)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Salt Crust Aquatic Inv Hydrogen S Dry-Seaso Oxidized R	(B11) vertebrates Sulfide Od n Water Ta hizospher not tilled)	lor (C1) able (C2) es on Liv	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (C3) (where tilled)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) 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)	Salt Crust Aquatic Inv Hydrogen S Dry-Seaso Cxidized R (where n Presence of	(B11) vertebrates Sulfide Od n Water Tr chizospher not tilled) of Reduced Surface (C	lor (C1) able (C2) es on Liv d Iron (C4 C7)	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (Where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) 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)	Salt Crust Aquatic Inv Hydrogen S Dry-Seaso Oxidized R (where n Presence of	(B11) vertebrates Sulfide Od n Water Tr chizospher not tilled) of Reduced Surface (C	lor (C1) able (C2) es on Liv d Iron (C4 C7)	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (Where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) 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)	Salt Crust Aquatic Inv Hydrogen S Dry-Seaso Cxidized R (where n Presence of	(B11) vertebrates Sulfide Od n Water Tr chizospher not tilled) of Reduced Surface (C	lor (C1) able (C2) es on Liv d Iron (C4 C7)	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (Where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) 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) Water-Stained Leaves (B9) Field Observations:	Salt Crust Aquatic Inv Hydrogen S Dry-Seaso Oxidized R (where n Presence o Thin Muck Other (Exp	(B11) vertebrates Sulfide Od n Water Tr chizospher not tilled) of Reducer Surface (Clain in Rer	or (C1) able (C2) es on Liv d Iron (C4 C7) marks)	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (Where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) 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) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes	Salt Crust Aquatic Inv Hydrogen 3 Dry-Seaso Oxidized R (where n Presence c Thin Muck Other (Exp	(B11) vertebrates Sulfide Od n Water Tr chizospher not tilled) of Reducer Surface (C lain in Rer	lor (C1) able (C2) es on Liv d Iron (C4 C7) marks)	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (Where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) 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) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes	Salt Crust Aquatic Inv Hydrogen 3 Dry-Seaso Oxidized R (where n Presence c Thin Muck Other (Exp	(B11) vertebrates Sulfide Od n Water Tr chizospher not tilled) of Reducer Surface (C lain in Rer	lor (C1) able (C2) es on Liv d Iron (C4 C7) marks)	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (Where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) 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) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes 1	Salt Crust Aquatic Inv Hydrogen S Dry-Seaso Oxidized R (where n Presence o Thin Muck Other (Exp	(B11) vertebrates Sulfide Od n Water Tr chizospher not tilled) of Reducer Surface (C lain in Rer	or (C1) able (C2) es on Liv d Iron (C4 C7) marks)	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (Where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) 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) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes Includes capillary fringe)	Salt Crust Aquatic Inv Hydrogen 3 Dry-Seaso Cyclized R (where n Presence c Thin Muck Other (Exp No Depth (inc	(B11) vertebrates Sulfide Od n Water Tr chizospher not tilled) of Reducer Surface (C lain in Rer ches):	or (C1) able (C2) es on Liv d Iron (C4 C7) marks)	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) 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) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes 19 Saturation Present? Yes 19 Saturation Present? Yes 19 Saturation Present? Yes 19 Saturation Present? Yes 19	Salt Crust Aquatic Inv Hydrogen 3 Dry-Seaso Cyclized R (where n Presence c Thin Muck Other (Exp No Depth (inc	(B11) vertebrates Sulfide Od n Water Tr chizospher not tilled) of Reducer Surface (C lain in Rer ches):	or (C1) able (C2) es on Liv d Iron (C4 C7) marks)	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F)
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required) 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) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes! Saturation Present? Yes! Saturation Present? Yes! Includes capillary fringe) Describe Recorded Data (stream gauge, mo	Salt Crust Aquatic Inv Hydrogen S Dry-Seaso Oxidized R (where n Presence of Thin Muck Other (Exp No Depth (inc	(B11) vertebrates Sulfide Od n Water Tr chizospher not tilled) of Reducer Surface (C lain in Rer ches):	or (C1) able (C2) es on Liv d Iron (C4 C7) marks)	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required) 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) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes! Water Table Present? Yes! Saturation Present? Yes! Includes capillary fringe) Describe Recorded Data (stream gauge, mo	Salt Crust Aquatic Inv Hydrogen S Dry-Seaso Oxidized R (where n Presence of Thin Muck Other (Exp No Depth (inc	(B11) vertebrates Sulfide Od n Water Tr chizospher not tilled) of Reducer Surface (C lain in Rer ches):	or (C1) able (C2) es on Liv d Iron (C4 C7) marks)	ing Roots	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F)

		City/County:	JUSC Sampling Date: June 30,201
Applicant/Owner:Camo.co			State: W Sampling Point: 19
Investigator(s): lisa Martn t Jeff Yelton	<u> </u>	Section, Township, Ra	ange: 19 T35N R75W
Landform (hillslope, terrace, etc.): Small Olegics	104	Local relief (concave,	convex, none): Concave Slope (%):
Subregion (LRR):	Lat: 42	2059'48.01 N	Long: 105° 47' 24.56 W Datum: NAD 83
Soil Map Unit Name: Hillam - For Dor.	Corr	rolex.	NWI classification: Not 115 ted
Are climatic / hydrologic conditions on the site typical for thi			
Are Vegetation (F), Soil (F), or Hydrology (F)			
			"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology, SUMMARY OF FINDINGS - Attach site map		•	eeded, explain any answers in Remarks.) ocations, transects, important features, etc.
I hadron hadi a Manada			
Hydrophytic Vegetation Present? Yes N Hydric Soil Present? Yes N		Is the Sampled	
	lo	within a Wetla	nd? Yes No
Remarks:			
Avea has been see	ed,	soil not	_
			photo 100-1999
VEGETATION – Use scientific names of plan	ts.		
		Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC
2			(excluding FAC-):
3			Total Number of Dominant Species Across All Strate: (B)
4			Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:) 1		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:
2.			Prevalence Index worksheet:
3			Total % Cover of:Multiply by:
4			OBL species x 1 =
5			FACW species x 2 =
		= Total Cover	FAC species x 3 =
Herb Stratum (Plot size: 5 radius)	20	L . 11	FACU species x 4 =
1. You cerurda	<u>20</u>		UPL species x 5 =
2. themes teachers les	<u>ao</u>		Column Totals: (A) (B)
3. Stipa helsonii 4. Festuca sp	37		Prevalence Index = B/A =
		<u> </u>	Hydrophytic Vegetation Indicators:
5			Dominance Test is >50%
6 7			Prevalence Index is ≤3.0¹
8.			Morphological Adaptations ¹ (Provide supporting
9			data in Remarks or on a separate sheet)
10			Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	65	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1			problemate.
2			Hydrophytic
O/ Boro Crown die Hout Chrotise		= Total Cover	Vegetation Present? Yes No
% Bare Ground in Herb Stratum			
Remarks: Jeg Las been se	edd		

SOIL							Point: Wefland 1
Profile Description: (De	scribe to the de	pth needed to docur	nent the ind	icator or con	irm the absence o	findicators.)	
	Matrix		x Features		_		
(inches) Color (m		Color (moist)	<u> </u>	Type ¹ Loc ²	Texture	Rem	
0-20 10YR	4/2 100				- Sandy Loam	Disturbed.	Reclaimed
9							
							
	·						
¹ Type: C=Concentration,	D=Depletion, RM	=Reduced Matrix, CS	=Covered or	Coated Sand	Grains ² Locat	ion: PL=Pore Lin	ing M=Matrix
Hydric Soil Indicators:						r Problematic H	vdric Soils ³ :
Histosol (A1)		Sandy G	Sleyed Matrix	(S4)		ck (A9) (LRR I, J)	
Histic Epipedon (A2)		Sandy R		` ,		airie Redox (A16)	
Black Histic (A3)		Stripped	Matrix (S6)			face (S7) (LRR C	
Hydrogen Sulfide (A4			Mucky Minera		High Plai	ns Depressions (F16)
Stratified Layers (A5)			Sleyed Matrix	(F2)		H outside of ML	RA 72 & 73)
1 cm Muck (A9) (LRR			d Matrix (F3) Dark Surface	(E6)		Vertic (F18)	
Thick Dark Surface (A			d Dark Surface			ent Material (TF2) oplain in Remarks	
Sandy Mucky Mineral			epressions (,		hydrophytic vege	
2.5 cm Mucky Peat or			ins Depressi	,		ydrology must be	
5 cm Mucky Peat or F		(MLI	RA 72 & 73 o	f LRR H)		sturbed or probler	
Restrictive Layer (if pres	ent):						
Type:							
Depth (inches):	•				Hydric Soil Pi	esent? Yes_	No <u>⊕</u>
Remarks:							
HYDROLOGY							
Wetland Hydrology Indic	ators:						
Primary Indicators (minimu	ım of one require	d; check all that apply)		Secondary	Indicators (minim	um of two required)
① Surface Water (A1)		Salt Crust (e Soil Cracks (B6	
High Water Table (A2))		ertebrates (B	313)		•	rcave Surface (B8)
⊕ Saturation (A3)		Hydrogen S	Sulfide Odor ((C1)		ge Patterns (B10)	` ,
Water Marks (B1)		Dry-Seasor	Water Table	e (C2)		- , ,	on Living Roots (C3)
	2)	Oxidized R	hizospheres	on Living Roo		re tilled)	(00)
Drift Deposits (B3)		(where n	ot tilled)		Crayfis	h Burrows (C8)	
Algal Mat or Crust (B4))	Presence o	f Reduced In	on (C4)	Satura	tion Visible on Ae	rial Imagery (C9)
Iron Deposits (B5)		Thin Muck	Surface (C7)		Geome	orphic Position (D	2)
Inundation Visible on A	Aerial Imagery (B	7) <u>~</u> Other (Expl	ain in Remar	ks)	FAC-N	eutral Test (D5)	
Water-Stained Leaves	(B9)				Frost-l	leave Hummocks	(D7) (LRR F)
Field Observations:			.,				
Surface Water Present?	Yes <u>&</u>	No Depth (incl	hes):				
Water Table Present?	Yes I	No Depth (incl	hes):				_
Saturation Present?	Yes <u>Ø</u> I	No Depth (incl	hes): <u> </u>	w	tland Hydrology F	resent? Yes_	∄ №
(includes capillary fringe) Describe Recorded Data (s	tream gauge mo	nitoring well periol of	hotos provin				
Describe Recorded Data (\$	ueam gauge, mo	milonng well, aenal pl	notos, previo	us inspections	i), it available:		

Puddle, Catch Basin

Remarks:

APPENDIX B

Photos



Photo 1. Wetland site #1.



Photo 2. Wetland site #2.



Photo 3. Wetland site #3.



Photo 4. Wetland site #4.



Photo 5. Wetland site #5.



Photo 6. Wetland site #6.



Photo 7. Wetland site #7.



Photo 8. Wetland site #8.



Photo 9. Wetland site #9.



Photo 10. Wetland site #10.



Photo 11. Wetland site #11.



Photo 12. Wetland site #12.



Photo 13. Wetland site #13.



Photo 14. Wetland site #14.



Photo 15. Wetland site #15.



Photo 16. Wetland site #16.



Photo 17. Wetland site #17.



Photo 18. Wetland site #18.



Photo 19. Wetland site #19.



Photo 20. Redox concentrations visible as red patches.



Photo 21. Histic epipedon observed at wetland site #1.