range from permanently flooded surface waters to saturated hydrologic regimes. Wetlands are connected directly to RPWs (Fish Creek and Ublutuoch River) through surface and shallow subsurface hydrologic connections and thus are applicable for jurisdiction under the CWA. No isolated wetlands were observed during the field survey or interpreted during the desk-top mapping exercise.

### **DIRECT IMPACTS**

Direct impacts to wetlands within the gravel footprint for Alternatives A were calculated by NWI class and presented in Table 1. The majority of wetland types directly impacted by Alternative a fall within the dryer PEM1/SS1B and PEM1/SS1E types [(63.7% and 30.4% respectively) Table 1]. The Alternative A route completely avoids all PEM1H (wet marsh wetland types) and 5.5% of the direct impact area is PEM1F (Table 1). This wetland determination identified a small number of naturally occurring uplands in the area, found on raised ridges surrounding lake basins. Direct upland impacts in the Alternative A alignment only account for 0.3% of the total impact area.

Table 1. Wetland and non-wetland acreage for the Greater Moose's Tooth 2 development Alternative A proposed project gravel footprint, NE NPR-A, Alaska. The footprint includes proposed road, drill pad, and road pullouts. Vertical support members were not included in this table but account for less than 0.1 acre.

Wetland Type	Road (acres)	GMT2 Pad (acres)	Road Pullouts (acres)	Total Fill (acres)	Total Fill (% of total)
Waters of the U.S.					
PUBH-Pond (<20acres)	0.1	-	-	0.1	0.1
Wetlands					
PEM1H-Permanently Flooded Emergent Marsh	-	-	-	-	-
PEM1F-Semi-permanently Flooded Emergent Meadow	4.1	0.2	-	4.3	5.5
PEM1/SS1E-Seasonally Flooded Saturated Emergent-Deciduous Shrub Meadow	23.5	0.2	-	23.7	30.4
PEM1/SS1B-Saturated Emergent Deciduous Shrub Meadow	34.9	13.6	1.2	49.7	63.7
Uplands (U)	0.2	-	-	0.2	0.3
TOTAL	62.8	14.0	1.2	78.0	100.0

<sup>&</sup>lt;sup>1</sup> Totals are rounded to the nearest 0.1 acre.

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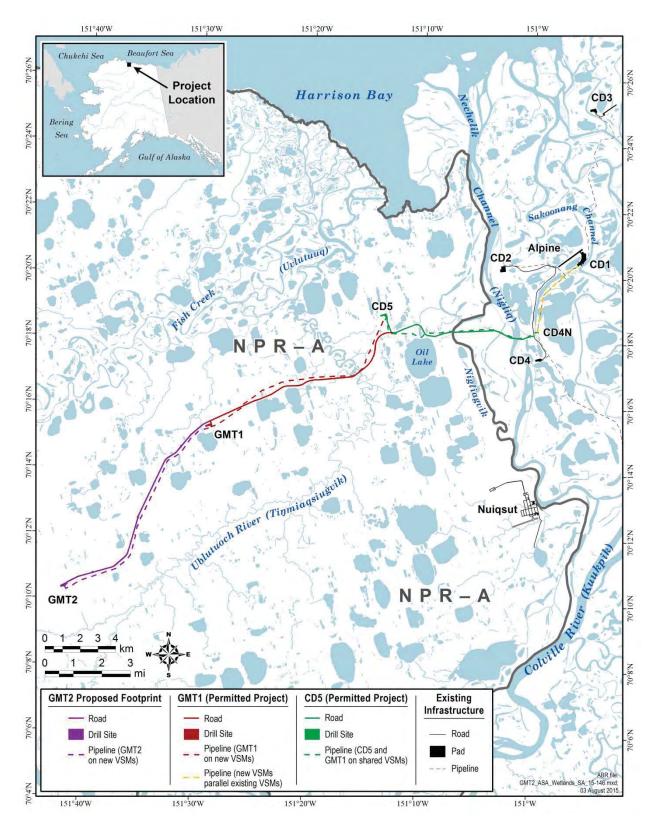
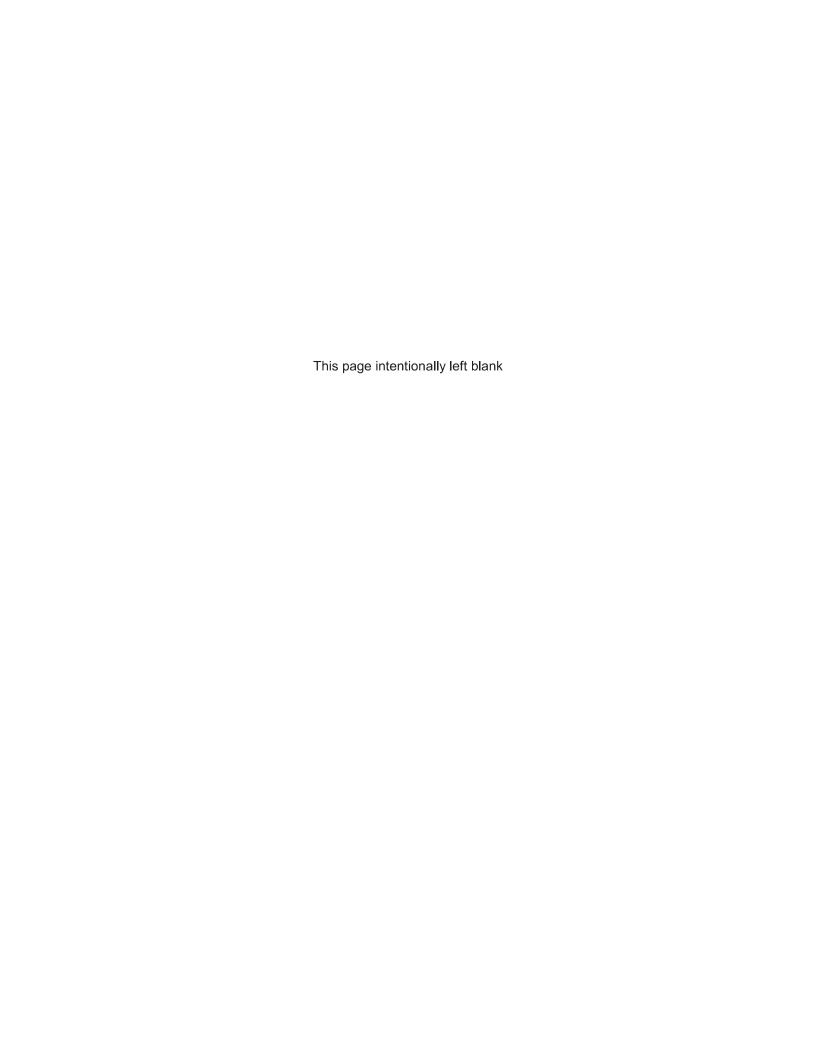
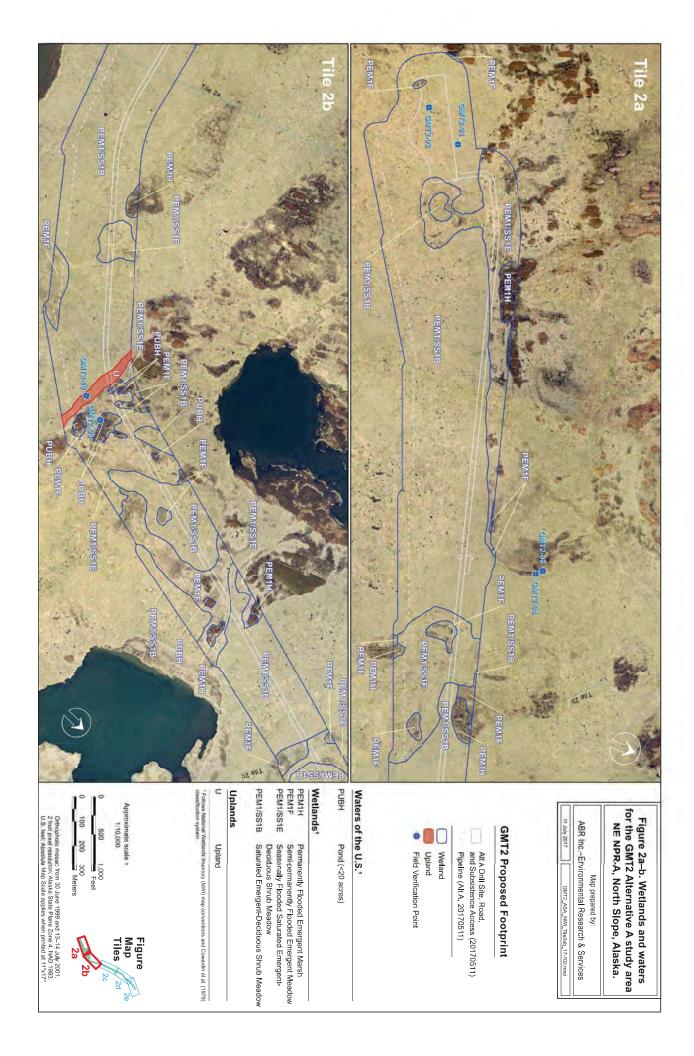


Figure 1. Location and project components for Alternatives of the proposed GMT2 development project





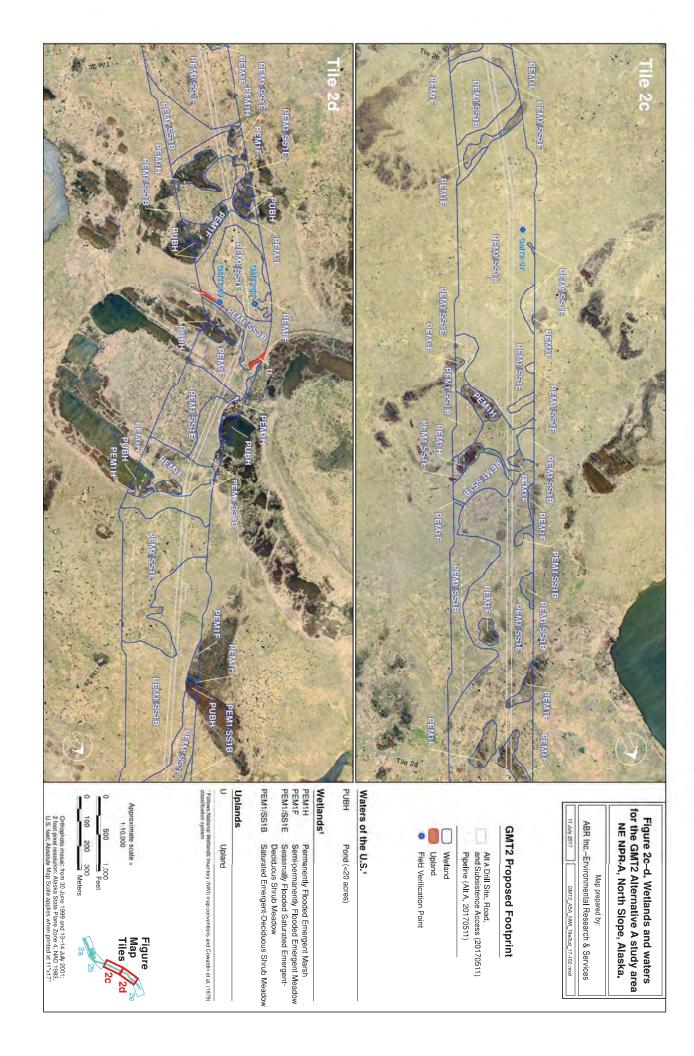




Figure 2e. Wetlands and waters for the GMT2 Alternative A study area NE NPR-A, North Slope, Alaska.

Map prepared by:

ABR Inc.-Environmental Research & Services

GMT2\_ASA\_NWI\_Tile2e\_17-102.mxd

# **GMT2 Proposed Footprint**

Alt A Drill Site, Road, and Subsistence Access (20170511)

Wetland Pipeline (Alt A, 20170511)

Field Verification Point Upland

Pond (<20 acres)

Permanently Flooded Emergent Marsh Semi-permanently Flooded Emergent Meadow Seasonally Flooded Saturated Emergent-Deciduous Shrub Meadow

Saturated Emergent-Deciduous Shrub Meadow

Upland

<sup>1</sup> Follows National Wetlands Inventory (NWI) map conventions and Cowardin et al. (1979) classification system.

Approximate scale = 1:10,000

100 200 300 Meters 500 1,000 Feet



Orthophoto mosaic from 30 June 1999 and 13–14 July 2001; 2 foot pixel resolution; Alaska State Plane Zone 4, NAD 1983, U.S. feet; Absolute Map Scale applies when printed at 11"x17"

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Appendix A. Wetland Determination Forms

15

oject/Site: GMT2			Borough/City:	North Slo	pe Borough Sampling Date: 21-Jul-15
plicant/Owner: Conoco Phillips	s Alaska, Inc. (CPAI)				Sampling Point: GMT2-01
estigator(s): WAD, EKJ			Landform (hill	side, terrac	e, hummocks etc.): Flat
cal relief (concave, convex, none	e): convex		Slope: 0.0		
pregion : Northern Alaska	, 5576%	Let:	70.173983333		
		Lat.	70.173983333	33334	
Map Unit Name:					NWI classification: pem1/ss1b
climatic/hydrologic conditions of the Vegetation , Soil , Soil the Vegetation , Soil ,	, or Hydrology ☐ , or Hydrology ☐ Attach site map sho	significant naturally p	ly disturbed? problematic?	(If nee	(If no, explain in Remarks.)  lormal Circumstances" present? Yes ● No ○  eded, explain any answers in Remarks.)  s, transects, important features, etc.
Hydrophytic Vegetation Present Hydric Soil Present? Wetland Hydrology Present? Remarks: high center polygons	Yes  No  Yes No  No	near the G	wit	hin a We	oled Area etland? Yes <sup>●</sup> No <sup>○</sup>
GETATION - Use scientifi					
		Absolute			Dominance Test worksheet:
Tree Stratum		% Cover	Species?	Status	Number of Dominant Species
•					That are OBL, FACW, or FAC: 3 (A)
					Total Number of Dominant Species Across All Strata:3 (B)
					Percent of dominant Species
4					That Are OBL, FACW, or FAC: 100.0% (A/B)
5		0			Prevalence Index worksheet:
	Total Cover				Total % Cover of: Multiply by:
Sapling/Shrub Stratum	50% of Total Cover:	0 20%	6 of Total Cover:	0	OBL Species 2 x 1 = 2
Salix pulchra		5		FACW	FACW Species 56.1 x 2 = 112.2
2. Betula nana		15	<b>✓</b>	FAC	FAC Species 25 x 3 = 75
Rhododendron tomentosum	1	10	<b>✓</b>	FACW	FACU Species 5 x 4 = 20
4. Vaccinium vitis-idaea		5		FAC	UPL Species x 5 =
Cassiope tetragona		5		FACU	
6. Salix reticulata		2		FAC	Column Totals: <u>88.1</u> (A) <u>209.2</u> (B)
7		0			Prevalence Index = B/A =2.375_
8		0_			Hadaankais Vanskalian Tudiaskana
9		0			Hydrophytic Vegetation Indicators:  ✓ Dominance Test is > 50%
0		0			
	Total Cover	42			✓ Prevalence Index is ≤3.0
Herb Stratum	50% of Total Cover:	21 209	% of Total Cover	8.4	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
1. Eriophorum vaginatum		40	<b>✓</b>	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Carex bigelowii		2		FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Eriophorum angustifolium		·		OBL	be present, unless disturbed or problematic.
Arctagrostis latifolia		0.1		FACW	
		1		FAC	Plot size (radius, or length x width)
Saussurea angustifolia		_			
		1		FACW	% Cover of Wetland Bryophytes 5
<ul><li>5. Saussurea angustifolia</li><li>6. Pedicularis sudetica</li></ul>		1		FACW	% Cover of Wetland Bryophytes5 (Where applicable)
<ul><li>5. Saussurea angustifolia</li><li>6. Pedicularis sudetica</li><li>7.</li></ul>		0		FACW_	
5. Saussurea angustifolia 6. Pedicularis sudetica 7. 8.		0		FACW	(Where applicable)
5. Saussurea angustifolia 6. Pedicularis sudetica 7. 8. 9.		1 0 0		FACW	(Where applicable)           % Bare Ground         0           Total Cover of Bryophytes         15
<ul><li>5. Saussurea angustifolia</li><li>6. Pedicularis sudetica</li></ul>		1 0 0 0		FACW	(Where applicable)  % Bare Ground  _0

Depth -		Matrix		Re	dox Feati	ures		_	
inches)	Color (mo	ist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3								Fibric Organic	
3-5								Hemic Organic	
5-9	10YR	3/2	100					Silt Loam	
9-11	10YR	2/2	100					Sapric Organic	
								-	
•		-Depletion	. RM=Redu	ced Matrix <sup>2</sup> Location				annel. M=Matrix	
dric Soil I				Indicators for			Soils <sup>3</sup> :	_	
Histosol or				Alaska Color		-			hout Hue 5Y or Redder
Histic Epip	. ,			Alaska Alpine				Underlying Layer	
	Sulfide (A4)			Alaska Redox	With 2.5Y	/ Hue		☐ Other (Explain in I	Remarks)
	Surface (A12)	<u> </u>		<sup>3</sup> One indicator	of hydronh	vtic vegetat	ion, one pr	imary indicator of wetl	and hydrology.
Alaska Gle Alaska Rec				and an appropr					
	yed Pores (A1	15)		<sup>4</sup> Give details of	Color char	nge in Rema	ırks		
OIC	, sa . 0.05 (A)	,		Give details Of	COIOI CIIdi	ige ili Nellla			
trictive Laye	er (if present)	:							
Type: sea	sonal frost							Hydric Soil Pres	sent? Yes   No
	nes): 11 nistosol assu	ıming sat	uration if I	not frozen					
narks: sidered a h	nistosol assu	ıming sat	uration if I	not frozen					
narks: sidered a h	nistosol assu		uration if I	not frozen				Secondary	v Indicators (2 or more required)
narks: sidered a h	GY  rology Indic	ators:		not frozen					r Indicators (2 or more required) Stained Leaves (89)
narks: sidered a h	GY rology Indicators (any of	ators:			Visible on	Aerial Imag	iery (B7)	Water	v Indicators (2 or more required) Stained Leaves (89) ge Patterns (810)
DROLOG tland Hydromary Indic Surface W	GY rology Indicators (any of	ators:		☐ Inundation		Aerial Imag	, , ,	Water	Stained Leaves (B9) ge Patterns (B10)
DROLOGIANT INDICATION OF THE PROPERTY INDICATION	GY rology Indicators (any of dater (A1) er Table (A2)	ators:		☐ Inundation	egetated C		, , ,	Water Drainag	Stained Leaves (B9) ge Patterns (B10)
DROLOG tland Hydr mary Indic Surface W High Wate Saturation	GY rology Indic cators (any of /ater (A1) er Table (A2)	ators:		☐ Inundation ☐ Sparsely V	egetated Co sits (B15)	oncave Surf	, , ,	Water Drainag	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C ce of Reduced Iron (C4)
DROLOG Bland Hydr Mary Indic Surface W High Wate Saturation Water Mar Sediment	GY rology Indicators (any of later (A1) er Table (A2) of (A3) rks (B1) Deposits (B2)	ators: one is suf		Inundation Sparsely Vo Marl Depos Hydrogen S Dry-Seasor	egetated Co sits (B15) Sulfide Odo n Water Ta	oncave Surf or (C1) ble (C2)	, , ,	Water : Drainag Oxidize Presen: Salt De	Stained Leaves (B9) ge Patterns (B10) ed Rhizospheres along Living Roots (Core of Reduced Iron (C4) eposits (C5) d or Stressed Plants (D1)
DROLOGITION OF THE PROPERTY OF	GY rology Indicators (any of atter (A1) er Table (A2) in (A3) rks (B1) Deposits (B2) sits (B3)	ators: one is suf		Inundation Sparsely Vo	egetated Co sits (B15) Sulfide Odo n Water Ta	oncave Surf or (C1) ble (C2)	, , ,	Water : Drainag Oxidize Presen Salt De Stunteg Geomo	Stained Leaves (B9) ge Patterns (B10) dd Rhizospheres along Living Roots (Coc of Reduced Iron (C4) eposits (C5) d or Stressed Plants (D1) erphic Position (D2)
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DROLOGITION TO THE PROPERTY OF	GY rology Indic cators (any o /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sists (B3) or Crust (B4) sists (B5)	ators: one is suf		Inundation Sparsely Vo Marl Depos Hydrogen S Dry-Seasor	egetated Co sits (B15) Sulfide Odo n Water Ta	oncave Surf or (C1) ble (C2)	, , ,	□ Water : □ Drainag □ Oxidize □ Preseng □ Salt De □ Stunteg □ Geomo □ Shallov	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (Coc of Reduced Iron (C4) eposits (C5) d or Stressed Plants (D1) erphic Position (D2) v Aquitard (D3) epographic Relief (D4)
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DROLOGE STATE OF THE PROPERTY	GY rology Indicators (any of atter (A1) er Table (A2) in (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6 attions: Present? esent?	ators: one is suf	ficient)  No •  No •	Inundation Sparsely Vi Marl Depos Hydrogen S Dry-Seasor Other (Exp	egetated Cosits (B15) Sulfide Odo Nater Ta lain in Rem sches):	oncave Surf or (C1) ble (C2) narks)	Face (B8)	Water : Drainag Oxidize Presen Salt De Stunte Geomo Shallov Microto	Stained Leaves (B9) ge Patterns (B10) ed Rhizospheres along Living Roots (Coce of Reduced Iron (C4) eposits (C5) d or Stressed Plants (D1) erphic Position (D2) ev Aquitard (D3) epographic Relief (D4) eutral Test (D5)
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pem1/ss1b

Wetland Functional Class: Saturated Graminoid/Shrub Meadow

Wildlife Habitat: Moist Tussock Tundra



Hydric Soil Indicators: Histosol
Wetland Hydrology Indicators: Secondary hydrology indicators only



Project/Site: GMT2	E	Borough/City:	North Slo	pe Borough Sampling Date: 21-Jul-15
Applicant/Owner: Conoco Phillips Alaska, Inc. (CPAI)				Sampling Point: GMT2-02
nvestigator(s): WAD, EKJ		Landform (hill	side, terrac	e, hummocks etc.): Flat
		Slope: 0.0	% / 0.0	° Elevation: 106
Subregion : Northern Alaska	Lat.:	70.172561666	 86667	Long.: -151.69516 Datum: WGS84
Soil Map Unit Name:		70.172001000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	NWI classification: pem1/ss1b
Are climatic/hydrologic conditions on the site typical for this t	ima af yaa	-2 Vac	● No ○	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology	significanti naturally p	ly disturbed? roblematic?	Are "N (If nee	lormal Circumstances" present? Yes  No Oeded, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes ● No ○				
Hydric Soil Present? Yes ● No ○			_	oled Area
Wetland Hydrology Present? Yes   No		wit	thin a We	etland? Yes <sup>●</sup> No
Remarks: lower lying area with innundated pitts and troi				
VEGETATION - Use scientific names of plants. L	ist all sp	ecies in the	plot.	
Tue Charles	Absolute			Dominance Test worksheet:
Tree Stratum  1.	% Cover	Species?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)
2	-		-	Total Number of Dominant
3.				Species Across All Strata:5(B)
				Percent of dominant Species
5.				That Are OBL, FACW, or FAC: 100.0% (A/E
Total Cover: 50% of Total Cover:		6 of Total Cover:	0	Prevalence Index worksheet:  Total % Cover of: Multiply by:  OBL Species 10 x 1 = 10
Salix pulchra	10	<b>~</b>	FACW	FACW Species 60 x 2 = 120
Rhododendron tomentosum	10	<b>~</b>	FACW	FAC Species 26 x 3 = 78
3. Betula nana	15	<b>✓</b>	FAC	FACU Species 5 x 4 =20
4. Cassiope tetragona	5		FACU	UPL Species 0 x 5 = 0
5. Vaccinium vitis-idaea			FAC	Column Totals: 101 (A) 228 (B
6				
7.	- 0			Prevalence Index = B/A = 2.257
o				Hydrophytic Vegetation Indicators:
9				✓ Dominance Test is > 50%
Total Cover				Prevalence Index is ≤3.0
			:10	Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1. Eriophorum angustifolium			OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Carex aquatilis	- 5		OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. Eriophorum vaginatum	- 1		FACW	be present, unless disturbed of problematic.
4. Saussurea angustifolia			FAC	No. of the state o
5				Plot size (radius, or length x width)
6				% Cover of Wetland Bryophytes5 (Where applicable)
				% Bare Ground0
				Total Cover of Bryophytes 15
8				
8. 9.				
8	0			Hydrophytic Vegetation Present?  Yes  No

Color (molet)   96   Color (molet)   96   Type   Loc 2   Texture   Remarks	Depth —	Matrix		Re	dox Feat	ures			
3-7 10YR 2/3 100		noist)	<u>%</u> _	Color (moist)	<u>%</u>	Type <sup>1</sup>	<u>Loc</u> 2	Texture	Remarks
Type: C=Concentration. D=Depletion. RM=Reduced Matrix   2 Location: PL=Pore Lining. RC=Root Channel. M=Matrix	0-3		100					Fibrric Organic	
Prype: C=Concentration, D=Depletion, RM=Reduced Matrix   2 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Prype: C=Concentration, D=Depletion, RM=Reduced Matrix   2 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Prype: C=Concentration, D=Depletion, RM=Reduced Matrix   2 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Prype: C=Concentration, D=Depletion, RM=Reduced Matrix   2 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Pryce: C=Concentration, D=Depletion, RM=Reduced Matrix   2 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Pryce: C=Concentration, D=Depletion, RM=Reduced Matrix   2 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Alaska Gleyed Without Hue SY or Redder Underlying Layer   1 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Alaska Gleyed Without Hue SY or Redder Underlying Layer   1 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Alaska Gleyed Without Hue SY or Redder Underlying Layer   1 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Alaska Gleyed Without Hue SY or Redder Underlying Layer   1 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Alaska Gleyed Without Hue SY or Redder Underlying Layer   1 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Alaska Gleyed Without Hue SY or Redder Underlying Layer   1 Location: PL=Pore Lining, RC=Root Channel, M=Matrix     Alaska Gleyed Without Hue SY or Redder Underlying Layer     Alaska Gleyed Without Hue SY or Redder Underlying Layer     Alaska Gleyed Without Hue SY or Redder Underlying Layer     Alaska Gleyed Without Hue SY or Redder Underlying Layer     Alaska Redox With Layer (Fips)	3-7 10YR	2/3	100					Silty Clay Loam	
Hydric Soil Indicators:    Indicators for Problematic Hydric Soils³:   Alaska Gleyed Without Hue 5Y or Redder   Maska Alpine swales (TA5)   Maska Alpine swales (TA5)   Underlying Layer   Worderlying Layer	7-11		100		-			Hemic Organic	with mineral content
Hydric Soil Indicators:    Indicators for Problematic Hydric Soils :   Alaska Gleyed Without Hue 5Y or Redder   Histic Epipedon (A2)   Alaska Alpine swales (TA5)   Underlying Layer   Underlying Layer   Other (Explain in Remarks)   Other (Explain in Remarks)   Alaska Gleyed With 2.5Y Hue   Other (Explain in Remarks)   Alaska Gleyed (A13)   Alaska Gleyed (A13)   Alaska Gleyed Pores (A15)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Cleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Cleyed Without Hue 5Y									
Hydric Soil Indicators:    Indicators for Problematic Hydric Soils :   Alaska Gleyed Without Hue 5Y or Redder   Histic Epipedon (A2)   Alaska Alpine swales (TA5)   Underlying Layer   Underlying Layer   Other (Explain in Remarks)   Other (Explain in Remarks)   Alaska Gleyed With 2.5Y Hue   Other (Explain in Remarks)   Alaska Gleyed (A13)   Alaska Gleyed (A13)   Alaska Gleyed Pores (A15)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Gleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Cleyed Without Hue 5Y or Redder Underlying Layer   Other (Explain in Remarks)   Alaska Cleyed Without Hue 5Y									
Hydric Soil Indicators:    Indicators for Problematic Hydric Soils :   Alaska Gleyed Without Hue 5Y or Redder   Histic Epipedon (A2)   Alaska Alpine swales (TA5)   Underlying Layer									
Hydric Soil Indicators:    Indicators for Problematic Hydric Soils :   Alaska Gleyed Without Hue 5Y or Redder   Histic Epipedon (A2)   Alaska Alpine swales (TA5)   Underlying Layer									
Hydric Soil Indicators:    Indicators for Problematic Hydric Soils³:							-	-	_
Hydric Soil Indicators:    Indicators for Problematic Hydric Soils³:   Alaska Gleyed Without Hue 5Y or Redder   Maska Alpine swales (TA5)   Maska Alpine swales (TA5)   Underlying Layer   Worderlying Layer									
Histosol or Histel (A1)			RM=Reduc					nnel. M=Matrix	
Histic Epipedon (A2)	Hydric Soil Indicators:						Soils <sup>3</sup> :	_	
Hydrogen Sulfide (A4)	_ `	)				-			out Hue 5Y or Redder
Thick Dark Surface (A12)  Alaska Gleyed (A13)  Alaska Redox (A14)  Alaska Gleyed (A15)  Alaska Gleyed (A15)  Alaska Gleyed Pores (A15)  *Give details of color change in Remarks.  *Hydric Soil Present? Yes ● No ○  Depth (inches): 11  *Secondary Indicators (2 or more required)  Primary Indicators (any one is sufficient)  Hydric Soil Present? Yes ● No ○  Secondary Indicators (2 or more required)  Water Table (A2)  Hydrace Water (A1)  Hydrace Water (A1)  Water Table (A2)  Sediment Deposits (B2)  Depth (inches): 10  Drift deposits (B3)  Other (Explain in Remarks)  Depth (inches): 10  Depth (	= '' '								
□ Alaska Gleyed (A13) □ Alaska Gleyed (A14) □ Alaska Gleyed Pores (A15) □ Alaska Cleyed Pores (A15) □ Alaska Cleyed Pores (A15) □ Alaska Cley	_ ' ' '	•		☐ Alaska Redox	With 2.5Y	/ Hue		Other (Explain in R	emarks)
Alaska Redox (A14)	_ `	.12)		3 One indicator of	of hydronh	ovtic vegetati	ion one n	imary indicator of wetla	nd hydrology
Alaska Gleyed Pores (A15)  4 Give details of color change in Remarks.  Restrictive Layer (if present): Type: seasonal frost Depth (inches): 11  Remarks:  Primary Indicators: Primary Indicators (any one is sufficient)  Surface Water (A1) Hydrogogy Indicators (B15) Water Marks (B1) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Alaska Gleyed Pores (A15) Algorithm Al									na nyarology,
Restrictive Layer (if present): Type: seasonal frost Depth (inches): 11  Remarks: Dositive alpha alpha reaction,  Hydric Soil Present? Yes No	_ ` ′	΄Λ15)		4 Civo dotails of	color char	ngo in Roma	rke		
Type: seasonal frost Depth (inches): 11  Remarks: Primary Indicators: Primary Indicators (any one is sufficient) High Water Table (A2) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Marks (B1) Depth (inches): Dry-Season Water Table (C2) Diff deposits (B3) Algal Mat or Crust (B4) Drift deposits (B3) Dry-Season Water Marks (B1) Dry-Season Water Marks (B1) Dry-Season Water Marks (B1) Dry-Season Water Table (C2) Dry-Season Water Table (C2) Dry-Season Water Marks (B1) Dry-Season Water Marks (B1) Dry-Season Water Table (C2) Dry-Season Water Table (C2) Dry-Season Water Marks (B1)	Alaska Gleyeu Fores	(A13)		Give details of	COIOI CIIai	nge in Rema	II KS.		
Type: seasonal frost Depth (inches): 11  temarks: ositive alpha alpha reaction,  IYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one is sufficient)  Surface Water (A1) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Dry-Season Water Table (C2) Dry-Season Water Table (C2) Spaid Mar or Crust (B4) Iron Deposits (B5) Surface Water Present? Water Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C2) Presence of Reduced Iron (C4) Salt Deposits (B2) Dry-Season Water Table (C2) Stainted or Stressed Plants (D1) Shallow Aquitard (D3) Iron Deposits (B5) Winderotopographic Relief (D4) Surface Soil Cracks (B6) Wetland Hydrology Present? Yes No Depth (inches): Surface Water Present? Ver No Depth (inches): Saturation Present? Ver No Saturation Present? Ver N	Restrictive Laver (if prese	nt):							
Depth (inches): 11  Remarks: Positive alpha alpha reaction,  Recondary Indicators (2 or more required)  Water Stained Leaves (89)  Oxidized Rhizospheres along Living Roots (Ci.  Positive Stained Cancave (B7)	, , ,	•						Hydric Soil Pres	ent? Yes • No O
Apply   Appl									
Wetland Hydrology Indicators:       Secondary Indicators (2 or more required)         Primary Indicators (any one is sufficient)       □ Inundation Visible on Aerial Imagery (B7)       □ Water Stained Leaves (B9)         ✓ Surface Water (A1)       □ Inundation Visible on Aerial Imagery (B7)       □ Drainage Patterns (B10)         □ Water Table (A2)       □ Sparsely Vegetated Concave Surface (B8)       □ Oxidized Rhizospheres along Living Roots (C         ✓ Saturation (A3)       □ Marl Deposits (B15)       ✓ Presence of Reduced Iron (C4)         □ Water Marks (B1)       □ Hydrogen Sulfide Odor (C1)       □ Salt Deposits (C5)         □ Sediment Deposits (B2)       □ Dry-Season Water Table (C2)       □ Stunted or Stressed Plants (D1)         □ Drift deposits (B3)       □ Other (Explain in Remarks)       ✓ Geomorphic Position (D2)         □ Algal Mat or Crust (B4)       □ Shallow Aquitard (D3)       ✓ Microtopographic Relief (D4)         □ In Deposits (B5)       ✓ FAC-neutral Test (D5)         Surface Water Present?       Yes       No       Depth (inches):       Image: No       Wetland Hydrology Present?       Yes       No         Saturation Present?       Yes       No       Depath (inches):       Depath (inches):       Mater Table (Inches):       Metland Hydrology Present?       Yes       No	Depth (inches): 11	ction,							
Primary Indicators (any one is sufficient)  Water Stained Leaves (B9)  Variace Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Drainage Patterns (B10)  Oxidized Rhizospheres along Living Roots (C  Additional Presents (B15)  Water Marks (B1)  Drainage Patterns (B10)  Oxidized Rhizospheres along Living Roots (C  Presence of Reduced Iron (C4)  Salt Deposits (C5)  Salt Deposits (C5)  Salt Deposits (C5)  Salt Deposits (C5)  Stunded or Stressed Plants (D1)  Drift deposits (B3)  Other (Explain in Remarks)  Water Table Present?  Yes  No  Depth (inches):  Depth (in	Depth (inches): 11	ction,							
✓ Surface Water (A1) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Drainage Patterns (B10)   ☐ High Water Table (A2) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Oxidized Rhizospheres along Living Roots (C2)   ✓ Saturation (A3) ☐ Marl Deposits (B15) ✓ Presence of Reduced Iron (C4)   ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Salt Deposits (C5)   ☐ Sediment Deposits (B2) ☐ Dry-Season Water Table (C2) ☐ Stunted or Stressed Plants (D1)   ☐ Drift deposits (B3) ☐ Other (Explain in Remarks) ✓ Geomorphic Position (D2)   ☐ Algal Mat or Crust (B4) ☐ Shallow Aquitard (D3)   ☐ Iron Deposits (B5) ✓ Microtopographic Relief (D4)   ☐ Surface Soil Cracks (B6) ✓ FAC-neutral Test (D5)     **Water Table Present?*  Yes No  Depth (inches):	Depth (inches): 11 Lemarks: Lositive alpha alpha rea	ction,							
High Water Table (A2)  Sparsely Vegetated Concave Surface (B8)  ✓ Saturation (A3)  ✓ Marl Deposits (B15)  ✓ Presence of Reduced Iron (C4)  Salt Deposits (C5)  Stunted or Stressed Plants (D1)  ✓ Shallow Aquitard (D3)  ✓ Iron Deposits (B5)  ✓ Surface Soil Cracks (B6)  Field Observations:  Surface Water Present?  Ves No Depth (inches):  Saturation Present?  Ves No Depth (inches):  Sparsely Vegetated Concave Surface (B8)  ✓ Oxidized Rhizospheres along Living Roots (C5)  ✓ Presence of Reduced Iron (C4)  ✓ Salt Deposits (C5)  Stunted or Stressed Plants (D1)  ✓ Geomorphic Position (D2)  Shallow Aquitard (D3)  ✓ Microtopographic Relief (D4)  ✓ FAC-neutral Test (D5)  Wetland Hydrology Present? Yes No O	Depth (inches): 11 Remarks: Positive alpha alpha rea	licators:							
✓ Saturation (A3) Marl Deposits (B15) ✓ Presence of Reduced Iron (C4)   ✓ Water Marks (B1) Hydrogen Sulfide Odor (C1) Salt Deposits (C5)   ✓ Sediment Deposits (B2) Dry-Season Water Table (C2) Stunted or Stressed Plants (D1)   ✓ Drift deposits (B3) Other (Explain in Remarks) ✓ Geomorphic Position (D2)   ✓ Algal Mat or Crust (B4) Shallow Aquitard (D3)   ✓ Iron Deposits (B5) ✓ Microtopographic Relief (D4)   ✓ Surface Soil Cracks (B6) ✓ FAC-neutral Test (D5)     Water Table Present?  Yes No Depth (inches): 1  Depth (inches): 1  Depth (inches): 4  Wetland Hydrology Present? Yes No O	Depth (inches): 11 Remarks: Re	licators:	icient)					Water S	tained Leaves (B9)
Water Marks (B1)	Depth (inches): 11 Remarks: Positive alpha alpha real  IYDROLOGY  Wetland Hydrology Inc  Primary Indicators (an  Surface Water (A1)	licators: y one is sufi	icient)			_		Water S Drainag	tained Leaves (B9) e Patterns (B10)
Sediment Deposits (B2)  □ Dry-Season Water Table (C2) □ Drift deposits (B3) □ Other (Explain in Remarks) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ Iron Deposits (B5) □ Surface Soil Cracks (B6) □ Surface Soil Cracks (B6) □ Dry-Season Water Table (C2) □ Stunted or Stressed Plants (D1) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-neutral Test (D5) □ Surface Water Present? □ Ves □ No □ Depth (inches): □ Wetland Hydrology Present? Yes □ No □ Saturation Present? □ Stunted or Stressed Plants (D1) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ Shallow Aquitard (D3) □ FAC-neutral Test (D5) □ Depth (inches): □ Wetland Hydrology Present? Yes □ No □ Staturation Present?	Depth (inches): 11 Remarks: Positive alpha alpha real  IYDROLOGY  Wetland Hydrology Inc  Primary Indicators (an  Surface Water (A1)  High Water Table (A	licators: y one is sufi	icient)	Sparsely Ve	egetated C	_		Water S Drainag Oxidized	tained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C
□ Drift deposits (B3) □ Other (Explain in Remarks) ☑ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ Iron Deposits (B5) ☑ Microtopographic Relief (D4) □ Surface Soil Cracks (B6) ☑ FAC-neutral Test (D5)  Field Observations: Surface Water Present? Yes ○ No ○ Depth (inches): □ Wetland Hydrology Present? Yes ○ No ○ Saturation Present? Yes ○ No ○ Depth (inches): □ Wetland Hydrology Present? Yes ○ No ○ Saturation Present? Yes ○ No ○ Depth (inches): □ Wetland Hydrology Present? Yes ○ No ○ Saturation Present? Yes ○ No ○ Depth (inches): □ Yes ○ No ○ No ○ Saturation Present? Yes ○ No ○ N	Depth (inches): 11 Remarks: Positive alpha alpha real  IYDROLOGY  Wetland Hydrology Inc  Primary Indicators (an  Surface Water (A1)  High Water Table (A)  Saturation (A3)	licators: y one is sufi	îcient)	Sparsely Ve	egetated C its (B15)	Concave Surf		☐ Water S☐ Drainag☐ Oxidized ✔ Presence	tained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C e of Reduced Iron (C4)
Algal Mat or Crust (B4)  ☐ Iron Deposits (B5) ☐ Surface Soil Cracks (B6)  FAC-neutral Test (D5)  Field Observations:  Surface Water Present?  Yes No Depth (inches):  Depth (inches):  Saturation Present?  Ves No Depth (inches):  No Depth (inches):  Saturation Present?	Depth (inches): 11 Remarks: Rositive alpha alpha real Remarks (alpha alpha real Remarks (Alpha alpha real Remarks (Alpha alpha alpha real Remarks (Alpha alpha real Remarks: Remarks	licators: y one is sufi	îcient)	Sparsely Ve Marl Depos Hydrogen S	egetated C its (B15) Gulfide Odd	Concave Surf		☐ Water S☐ Drainag☐ Oxidized☐ Presenc☐ Salt Dep	tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) posits (C5)
☐ Iron Deposits (B5) ☐ Surface Soil Cracks (B6)  Field Observations:  Surface Water Present?  Yes No Depth (inches):  Depth (inches):  Saturation Present?  Yes No Depth (inches):  No Depth (inches):  Saturation Present?	Depth (inches): 11 Remarks: Rositive alpha alpha real Remarks: Rositive alpha alpha real Remarks: Rositive alpha alpha real Remarks: Remar	licators: y one is sufi	îcient)	Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated C its (B15) Sulfide Odd Water Ta	Concave Surface or (C1) able (C2)		Water S □ Drainag □ Oxidized ✓ Presenc □ Salt Dep □ Stunted	tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1)
Surface Soil Cracks (B6)  Field Observations:  Surface Water Present?  Yes No Depth (inches): 1  Water Table Present?  Yes No Depth (inches): Wetland Hydrology Present?  Yes No Depth (inches): 4  Wetland Hydrology Present? Yes No Depth (inches): 4	Depth (inches): 11 Remarks: Positive alpha alpha real Remarks: Rem	licators: y one is sufi 2) 32)	icient)	Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated C its (B15) Sulfide Odd Water Ta	Concave Surface or (C1) able (C2)		☐ Water S ☐ Drainag ☐ Oxidized ☑ Presence ☐ Salt Dep ☐ Stunted ☑ Geomor	tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2)
Field Observations:  Surface Water Present?  Yes No Depth (inches): 1  Water Table Present?  Yes No Depth (inches): Wetland Hydrology Present?  Yes No Depth (inches): 4  Wetland Hydrology Present?  Yes No Depth (inches): 4	Depth (inches): 11 Remarks: Rositive alpha alpha reasonsitive alpha alpha lapha	licators: y one is sufi 2) 32)	îcient)	Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated C its (B15) Sulfide Odd Water Ta	Concave Surface or (C1) able (C2)			tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3)
Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present?	Depth (inches): 11 Remarks: Positive alpha alpha real Remarks: Positive alpha alpha real Remarks: Remarks: Remarks: Remarks: Remarks: Remarks (A1) Remarks (A1) Remarks (B1) Remarks (B1) Remarks (B1) Remarks (B3) Remarks (B4) Remarks (B4) Remarks (B4) Remarks (B4) R	licators: y one is suff 2) 32)	ficient)	Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated C its (B15) Sulfide Odd Water Ta	Concave Surface or (C1) able (C2)			tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) cosits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) cographic Relief (D4)
Saturation Present?	Depth (inches): 11 Remarks: Rositive alpha alpha real Remarks: Remarks (And Primary Indicators (B1) Remarks:	licators: y one is suff 2) 32) 4)		Sparsely Ve	egetated C its (B15) Sulfide Odd Water Ta	Concave Surface or (C1) able (C2)			tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) cosits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) cographic Relief (D4)
Saturation Present?	Depth (inches): 11 Remarks: Rositive alpha alpha real Remarks: Remarks (And Primary Indicators (B1) Remarks: Remar	licators: y one is suff 2) 32) 4)		Sparsely Ve	egetated C its (B15) Gulfide Odo Water Ta ain in Ren	concave Surfa or (C1) ible (C2) narks)			tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) cosits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) cographic Relief (D4)
(includes capillary fringe)  Yes VINO VINCHES): 4	Depth (inches): 11 Remarks: Rositive alpha alpha real properties of the primary Indicators (and primar	licators: y one is suff 2) 32) 4) B6) Yes	) No O	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated C its (B15) Sulfide Odo Water Ta ain in Ren	concave Surfa or (C1) ible (C2) narks)	ace (B8)	Water S □ Drainag □ Oxidized ✔ Presenc □ Salt Dep □ Stunted ✔ Geomor □ Shallow ✔ Microtop ✔ FAC-net	tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) utral Test (D5)
	Depth (inches): 11 Remarks: Positive alpha alpha real properties of the primary Indicators (and primary Indicators (B1)    Sufface Water Marks (B1)   Sediment Deposits (B3)   Algal Mat or Crust (B1)   Iron Deposits (B5)   Surface Soil Cracks (B1)   Surface Water Present?   Water Table Present?	licators: y one is suff 2) 32) 4) B6) Yes  Yes	) No ○ ) No ●	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated C its (B15) Sulfide Odd Water Ta ain in Ren ches):	concave Surface (C1) sible (C2) narks)	ace (B8)	Water S □ Drainag □ Oxidized ✔ Presenc □ Salt Dep □ Stunted ✔ Geomor □ Shallow ✔ Microtop ✔ FAC-net	tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) utral Test (D5)
	Depth (inches): 11  Remarks: Rositive alpha alpha real  IYDROLOGY  Wetland Hydrology Inc  Primary Indicators (an  Surface Water (A1)  High Water Table (A  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B1)  Iron Deposits (B5)  Surface Soil Cracks ( Field Observations:  Surface Water Present?  Water Table Present?	licators: y one is suff  2)  32)  4)  Yes  Yes  Yes	) No O ) No O	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated C its (B15) Gulfide Odd Water Ta ain in Ren ches):	or (C1) able (C2) narks)	wet	Water S □ Drainag □ Oxidized ✔ Presenc □ Salt Dep □ Stunted ✔ Geomor □ Shallow ✔ Microtop ✔ FAC-net	tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) utral Test (D5)
	Depth (inches): 11  Remarks: Positive alpha alpha real  IYDROLOGY  Wetland Hydrology Inc  Primary Indicators (an  Surface Water (A1)  High Water Table (A  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B1)  Iron Deposits (B5)  Surface Soil Cracks (B1)  Surface Soil Cracks (B1)  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Recorded Data (stream	licators: y one is suff  2)  32)  4)  Yes  Yes  Yes	) No O ) No O	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated C its (B15) Gulfide Odd Water Ta ain in Ren ches):	or (C1) able (C2) narks)	wet	Water S □ Drainag □ Oxidized ✔ Presenc □ Salt Dep □ Stunted ✔ Geomor □ Shallow ✔ Microtop ✔ FAC-net	tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) utral Test (D5)
Remarks:	Depth (inches): 11 Remarks: Rositive alpha alpha real Remarks: Rositive alpha alpha real Remarks: Rositive alpha alpha real Remarks: Remar	licators: y one is suff  2)  32)  4)  Yes  Yes  Yes	) No O ) No O	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated C its (B15) Gulfide Odd Water Ta ain in Ren ches):	or (C1) able (C2) narks)	wet	Water S □ Drainag □ Oxidized ✔ Presenc □ Salt Dep □ Stunted ✔ Geomor □ Shallow ✔ Microtop ✔ FAC-net	tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) utral Test (D5)
Remarks: rozen at 11 inches	Depth (inches): 11 Remarks: Rositive alpha alpha real Remarks: Rositive alpha alpha real Remarks: Rositive alpha alpha real Remarks: Remar	licators: y one is suff  2)  32)  4)  Yes  Yes  Yes	) No O ) No O	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated C its (B15) Gulfide Odd Water Ta ain in Ren ches):	or (C1) able (C2) narks)	wet	Water S □ Drainag □ Oxidized ✔ Presenc □ Salt Dep □ Stunted ✔ Geomor □ Shallow ✔ Microtop ✔ FAC-net	tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) utral Test (D5)

pem1/ss1b

Wetland Functional Class: Seasonally Flooded/Saturated Graminoid/Shrub Meadow

Wildlife Habitat: Moist Sedge/Shrub Tundra



Hydric Soil Indicators: Histosol
Wetland Hydrology Indicators: Saturation and surface water in nearby troughs



Project/Site: GMT2	Boroug	gh/City: North Sk	ope Borough Sa	mpling Date: 21-Jul-15
Applicant/Owner: Conoco Phillips Alaska, Inc. (CPAI)			Sampling F	Point: GMT2-03
nvestigator(s): WAD, EKJ	Land	form (hillside, terra	ce, hummocks etc.): dr	ained pund
Local relief (concave, convex, none): concave	Slop	e: %/	° Elevation: 89	
Subregion: Northern Alaska	Lat.: 70.18	327233333333	Long.: -151.65278	Datum:
Soil Map Unit Name:			NWI classifica	
	significantly distonaturally probler	natic? (If ne	Normal Circumstances" pre eded, explain any answers	esent? Yes • No O
Hydrophytic Vegetation Present? Yes  No Hydric Soil Present? Yes  No Wetland Hydrology Present? Yes  No Remarks: small dried pond		Is the Sam within a W	pled Area	● No○
<b>EGETATION -</b> Use scientific names of plants. L		in the plot.	Dominance Test worksh	reet:
Tree Stratum 1.		ecies? Status	Number of Dominant Spec That are OBL, FACW, or F	ies
2.			Total Number of Dominant Species Across All Strata:	
3. 4.			Percent of dominant Speci That Are OBL, FACW, or F	es
5. Total Cover	: <u> </u>		Prevalence Index works Total % Cover of:	
Sapling/Shrub Stratum 50% of Total Cover:	_0 20% of To	tal Cover: 0	OBL Species 1	x 1 = <u>1</u>
1.		H —	FACW Species 0	x 2 = 0
2		H —	FAC Species 0	x 3 =0
3. 4.		H —	FACU Species 0	x 4 =0
		H —	UPL Species 0	x 5 =0
		<u> </u>	Column Totals: 1	(A)1 (B)
6 7.		<u> </u>	Prevalence Inde	
8.				
9.			Hydrophytic Vegetation	
10.			✓ Dominance Test is >	
Total Cover	·		✓ Prevalence Index is ≤	
_Herb Stratum 50% of Total Cover:	_0 20% of To	tal Cover: 0	Morphological Adapta Remarks or on a sepa	tions <sup>1</sup> (Provide supporting data in rate sheet)
1. Carex aquatilis	1	<b>✓</b> OBL	Problematic Hydrophy	tic Vegetation <sup>1</sup> (Explain)
2.			<sup>1</sup> Indicators of hydric soil ar	nd wetland hydrology must
3.			be present, unless disturbe	ed or problematic.
4.				
5.			Plot size (radius, or lengt	h x width)
6			% Cover of Wetland Bry	ophytes
7			(Where applicable)	
8			% Bare Ground	
9	0		Total Cover of Bryophyte	
10	0	□	Hydrophytic	
10				
Total Cover 50% of Total Cover:	:1	tal Cover: 0.2	Vegetation Present? Yes	No

Depth —	Matrix		Rec	dox Featu				
inches) Color (mo	oist)	%	Color (moist)	%	Type <sup>1</sup>	<u>Loc</u> 2	Texture	Remarks
								-
pe: C=Concentration. D:	=Depletion. R	M=Reduce	ed Matrix <sup>2</sup> Location	n: PL=Por	e Lining. Ro	C=Root Cha	nnel. M=Matrix	
dric Soil Indicators:			Indicators for	Problema	tic Hydric	Soils <sup>3</sup> :		
Histosol or Histel (A1)			Alaska Color (	Change (T.	A4) <sup>4</sup>		Alaska Gleyed Withou	t Hue 5Y or Redder
Histic Epipedon (A2)			Alaska Alpine	swales (T	A5)		Underlying Layer	
Hydrogen Sulfide (A4)			Alaska Redox	With 2.5Y	Hue	[	Other (Explain in Rem	narks)
Thick Dark Surface (A1	2)							
Alaska Gleyed (A13)							mary indicator of wetland	hydrology,
Alaska Redox (A14)			and an appropri	ace landsc	ape positior	ı must be pr	esent.	
Alaska Gleyed Pores (A	15)		<sup>4</sup> Give details of	color char	ige in Rema	ırks.		
							I	
trictive Layer (if present)	:						Health Call Days	
Type: unknown							Hydric Soil Presen	t? Yes • No O
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								
Depth (inches):								
Depth (inches): marks: pit								
Depth (inches): marks: pit	rators						Secondary In	dicators (2 or more required)
Depth (inches): narks: pit  DROLOGY etland Hydrology Indic		ient)						dicators (2 or more required)
Depth (inches): marks: pit  DROLOGY etland Hydrology Indicitionary Indicators (any		ient)	Inundation	Visible on	Aerial Imac	uery (R7)	Water Stai	ned Leaves (B9)
Depth (inches): marks: pit  DROLOGY etland Hydrology Indic imary Indicators (any  Surface Water (A1)		ient)	☐ Inundation		_	, , ,	☐ Water Stai	ned Leaves (B9) Patterns (B10)
Depth (inches): marks: pit  DROLOGY etland Hydrology Indic imary Indicators (any  Surface Water (A1)  High Water Table (A2)		ient)	Sparsely Ve	getated Co	_	, , ,	☐ Water Stai ☑ Drainage F ☐ Oxidized R	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (Ci
Depth (inches): marks: pit  DROLOGY etland Hydrology Indic imary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3)		cient)	Sparsely Ve	getated Co its (B15)	oncave Surf	, , ,	Water Stai  ✓ Drainage F  ○ Oxidized R  ○ Presence o	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C3 of Reduced Iron (C4)
Depth (inches): narks: pit  DROLOGY etland Hydrology Indicitionary Indicators (anv Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	one is suffic	ient)	Sparsely Ve Marl Deposi	getated Co its (B15) ulfide Odo	oncave Surf	, , ,	Water Stai  Drainage F  Oxidized R  Presence o  Salt Depos	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (Ci f Reduced Iron (C4) its (C5)
Depth (inches): marks: pit  DROLOGY etland Hydrology Indic imary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3)	one is suffic	ient)	Sparsely Ve Marl Deposi Hydrogen S Dry-Season	getated Co its (B15) ulfide Odo Water Tal	oncave Surf or (C1) ble (C2)	, , ,	Water Stai  Drainage F  Oxidized R  Presence o  Salt Depos  Stunted or	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C3 of Reduced Iron (C4)
Depth (inches): marks: pit  DROLOGY etland Hydrology Indicition of the second of the s	one is suffic	ient)	Sparsely Ve Marl Deposi	getated Co its (B15) ulfide Odo Water Tal	oncave Surf or (C1) ble (C2)	, , ,	Water Stai  Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorphi	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2)
Depth (inches): marks: pit  DROLOGY etland Hydrology Indic imary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4)	one is suffic	ient)	Sparsely Ve Marl Deposi Hydrogen S Dry-Season	getated Co its (B15) ulfide Odo Water Tal	oncave Surf or (C1) ble (C2)	, , ,	Water Stai  ✓ Drainage F  ○ Oxidized R  ○ Presence o  ○ Salt Depos  ○ Stunted or  ✓ Geomorphi  ○ Shallow Ac	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (Ci of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3)
Depth (inches): marks: pit  DROLOGY  Ptland Hydrology Indic imary Indicators (any 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)	one is suffic	ient)	Sparsely Ve Marl Deposi Hydrogen S Dry-Season	getated Co its (B15) ulfide Odo Water Tal	oncave Surf or (C1) ble (C2)	, , ,	Water Stai  Drainage F  Oxidized R  Presence of  Salt Depos  Stunted or  Geomorphi  Shallow Ac  Microtopog	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (Ci f Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2)
Depth (inches): marks: pit  DROLOGY etland Hydrology Indicition of the second of the s	one is suffic		Sparsely Ve Marl Deposi Hydrogen S Dry-Season	getated Co its (B15) ulfide Odo Water Tal	oncave Surf or (C1) ble (C2)	, , ,	Water Stai  Drainage F  Oxidized R  Presence of  Salt Depos  Stunted or  Geomorphi  Shallow Ac  Microtopog	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (Ci of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3) graphic Relief (D4)
Depth (inches): marks: pit  DROLOGY etland Hydrology Indicition Indicators (anv.) 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) Surface Soil Cracks (B6)	one is suffic	ient)	Sparsely Ve Marl Deposi Hydrogen S Dry-Season	getated Co its (B15) ulfide Odc Water Tal ain in Rem	oncave Surf or (C1) ble (C2)	, , ,	Water Stai  Drainage F  Oxidized R  Presence of  Salt Depos  Stunted or  Geomorphi  Shallow Ac  Microtopog	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C3 of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3) graphic Relief (D4)
Depth (inches): marks: pit  DROLOGY  etland Hydrology Indicition Indicators (anv 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) Surface Soil Cracks (B6) Surface Water Present?	one is suffic	No •	Sparsely Ve Marl Deposi Hydrogen S Dry-Season Other (Expl	getated Co tits (B15) ulfide Odc Water Tal ain in Rem	oncave Surf or (C1) ble (C2)	ace (B8)	Water Stai  Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Ac Microtopog FAC-neutra	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C3) if Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3) graphic Relief (D4) al Test (D5)
Depth (inches): marks: pit  //DROLOGY etland Hydrology Indiction of the pictor of the	yes O		Sparsely Ve Marl Deposi Hydrogen S Dry-Season Other (Expl	getated Countries (B15) ulfide Odc Water Tal ain in Rem	oncave Surf or (C1) ble (C2)	ace (B8)	Water Stai  Drainage F  Oxidized R  Presence of  Salt Depos  Stunted or  Geomorphi  Shallow Ac  Microtopog	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C3) if Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3) graphic Relief (D4) al Test (D5)
Depth (inches): marks: pit  //DROLOGY etland Hydrology Indiction Indicators (any 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) Surface Soil Cracks (B6) Surface Water Present? ater Table Present? ituration Present? ituration Present? ituration Present?	yes O	No   No   No   No   No	Sparsely Ve Marl Deposi Hydrogen S Dry-Season Other (Expl	getated Cits (B15) ulfide Odc Water Tal ain in Rem	or (C1) ble (C2) harks)	Wetla	Water Stai  Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Ac Microtopog FAC-neutra	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C3) if Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3) graphic Relief (D4) al Test (D5)
Depth (inches): marks: pit  //DROLOGY etland Hydrology Indiction Indicators (any 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) Surface Soil Cracks (B6) Surface Water Present? ater Table Present? ituration Present? ituration Present? ituration Present?	yes O	No   No   No   No   No	Sparsely Ve Marl Deposi Hydrogen S Dry-Season Other (Expl	getated Cits (B15) ulfide Odc Water Tal ain in Rem	or (C1) ble (C2) harks)	Wetla	Water Stai  Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Ac Microtopog FAC-neutra	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (Ci of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3) graphic Relief (D4) al Test (D5)
Depth (inches): marks: pit  //DROLOGY  //etland Hydrology Indice rimary Indicators (any Surface Water (A1) High Water Table (A2) // Saturation (A3) Water Marks (B1) Sediment Deposits (B2) // Algal Mat or Crust (B4) // Iron Deposits (B5) // Surface Soil Cracks (B6) // Surface Soil Cracks (B6) // Iron Deposits (B5) // Iron Deposits (B5) // Surface Water Present? // atter Table Present? // atter Table Present? // atter Table Algal Mat (stream of the corded Data (stream of the co	yes O	No   No   No   No   No	Sparsely Ve Marl Deposi Hydrogen S Dry-Season Other (Expl	getated Cits (B15) ulfide Odc Water Tal ain in Rem	or (C1) ble (C2) harks)	Wetla	Water Stai  Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Ac Microtopog FAC-neutra	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C3) if Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3) graphic Relief (D4) al Test (D5)
Depth (inches): marks: pit  //DROLOGY etland Hydrology Indicertance Indicators (any Indicators (any Indicators (any Indicators (A1) Indicators (A2) Indicators (A3) Indicators (B4) Indicators (B4) Indicators (B5) Indicators (B5) Indicators (B5) Indicators (B6) Indicators	yes O	No   No   No   No   No	Sparsely Ve Marl Deposi Hydrogen S Dry-Season Other (Expl	getated Cits (B15) ulfide Odc Water Tal ain in Rem	or (C1) ble (C2) harks)	Wetla	Water Stai  Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Ac Microtopog FAC-neutra	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C3) if Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3) graphic Relief (D4) al Test (D5)

pusc

Wetland Functional Class: Semi-permanently Flooded Wet Graminoid Meadow

Wildlife Habitat: Non-patterned Wet Sedge Meadow



Hydric Soil Indicators: No pit, typically inundated
Wetland Hydrology Indicators: Saturated to surface, surface cracking



Project/Site: GMT2	Borough/City:	North Slo	ope Borough Sampling Date: 21-Jul-15
Applicant/Owner: Conoco Phillips Alaska, Inc. (CPAI)			Sampling Point: GMT2-04
nvestigator(s): WAD, EKJ		llside, terrac	ce, hummocks etc.): Flat
ocal relief (concave, convex, none): flat	Slope: 0.0		0 ° Elevation: 75
Subregion : Northern Alaska	 Lat.: 70.182495		Long.: -151.652286666667 Datum:
foil Map Unit Name:	70.102433		
·		• No O	NWI classification: PEM1F
Are Vegetation , Soil , or Hydrology Are Vegetation , Soil , or Hydrology Are Vegetation , Soil , or Hydrology .	significantly disturbed? naturally problematic?	Are "N (If nee	Normal Circumstances" present? Yes  No  eded, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes No			<u>, , , , , , , , , , , , , , , , , , , </u>
Hydric Soil Present? Yes   Wetland Hydrology Present? Yes   No (	) Is	the Sam thin a We	pled Area etland? Yes ● No
Remarks: WET SEDGE MEADOW, non patterned.			
<b>EGETATION -</b> Use scientific names of plant	<del>`</del>	•	
Tree Stratum	Absolute Dominant % Cover Species?	Indicator Status	
1		, Status	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
2.			Total Number of Dominant
3			Species Across All Strata:3 (B)
1			Percent of dominant Species
5.			That Are OBL, FACW, or FAC: 100.0% (A/B)
Total C	over:		Prevalence Index worksheet:
Sapling/Shrub Stratum 50% of Total Cover:	0 20% of Total Cover	·: 0	Total % Cover of: Multiply by:
1. Salix pulchra	1	FACW	OBL Species <u>63</u> x 1 = <u>63</u>
Betula nana		FAC	FACW Species x 2 =14
2		1710	FAC Species <u>11</u> x 3 = <u>33</u>
1			FACU Species x 4 =
5.			UPL Species x 5 =0
			Column Totals: <u>81</u> (A) <u>110</u> (B)
6			
8			Prevalence Index = B/A =1.358_
0.	— <u> </u>		Hydrophytic Vegetation Indicators:
9 10			✓ Dominance Test is > 50%
	over: <u>12</u>		✓ Prevalence Index is ≤3.0
	20% of Total Cover	r: <u>2.4</u>	Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
Carex aquatilis	15	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Eriophorum angustifolium	45	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Carex rotundata	3	OBL	be present, unless disturbed or problematic.
4. Pedicularis sudetica		FACW	
5. Carex saxatilis		FACW	Plot size (radius, or length x width)
6			% Cover of Wetland Bryophytes 5
7			(Where applicable)
8			% Bare Ground 30
9			Total Cover of Bryophytes _5_
	0		Hydrophytic
10			
10Total C		: 13.8	Vegetation Present?  Yes  No  No

(inches) Color (m			Ke	dox Featu			_	
Coloi (II	oist)	<u></u>	Color (moist)	%	_Type $^{1}$	<u>Loc</u> 2	Texture	Remarks
0-15		100					Mucky Peat	hemic org.
								_
								_
								_
/pe: C=Concentration. [	=Depletion. F	RM=Reduce	ed Matrix <sup>2</sup> Locatio	n: PL=Por	e Lining. RO	C=Root Cha	annel. M=Matrix	
dric Soil Indicators:			Indicators for					
Histosol or Histel (A1)			Alaska Color				Alaska Gleved Witho	out Hue 5Y or Redder
Histic Epipedon (A2)			Alaska Alpine		-		Underlying Layer	out flue 31 of Reduct
Hydrogen Sulfide (A4)			Alaska Redox				Other (Explain in Re	marks)
Thick Dark Surface (A							_ 、 .	,
Alaska Gleyed (A13)	/		<sup>3</sup> One indicator of	of hydroph	ytic vegetat	ion, one pr	rimary indicator of wetlan	nd hydrology,
Alaska Redox (A14)			and an appropri	ate landsc	ape position	must be p	oresent.	
Alaska Gleyed Pores (	A15)		<sup>4</sup> Give details of	color chan	ge in Rema	rks.		
, ,	,				9			
trictive Layer (if presen	t):							
Type: seasonal fros	t						Hydric Soil Prese	nt? Yes   No
Depth (inches): 15 marks:								
marks:								
narks: DROLOGY	cators:						Secondary I	indicators (2 or more required)
DROLOGY		cient)						indicators (2 or more required)
DROLOGY etland Hydrology Ind		cient)	☐ Inundation	Visible on	Aerial Imag	erv (B7)	Water Sta	ained Leaves (B9)
DROLOGY  Etland Hydrology Ind imary Indicators (any Surface Water (A1)	one is suffi	cient)	☐ Inundation ☐ Sparsely Ve		_		Water Sta	ained Leaves (B9) Patterns (B10)
DROLOGY  Stland Hydrology Ind Smary Indicators (and Surface Water (A1)  High Water Table (A2)	one is suffi	cient)	Sparsely Ve	egetated Co	_		Water Sta	ained Leaves (B9) Patterns (B10)
DROLOGY  Itland Hydrology Ind mary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3)	one is suffi	cient)	Sparsely Ve	egetated Co its (B15)	oncave Surf		Water Sta	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Coof Reduced Iron (C4)
DROLOGY  Etland Hydrology Ind  imary Indicators (any  Surface Water (A1)  High Water Table (A2)  Saturation (A3)	one is suffi	cient)	Sparsely Ve	egetated Co its (B15) Sulfide Odo	oncave Surf		Water Str Drainage Oxidized Presence Salt Depo	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Ci of Reduced Iron (C4)
DROLOGY  Etland Hydrology Ind imary Indicators (anv.)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)	one is suffi	cient)	Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated Co its (B15) Sulfide Odo Water Tal	oncave Surf or (C1) ole (C2)		Water Str Drainage Oxidized Presence Salt Depo	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Ci of Reduced Iron (C4) sosits (C5)
DROLOGY  etland Hydrology Ind imary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	one is suffi ) 2)	cient)	Sparsely Ve	egetated Co its (B15) Sulfide Odo Water Tal	oncave Surf or (C1) ole (C2)		☐ Water State Drainage ☐ Oxidized ☐ Presence ☐ Salt Depote ☐ Stunted € ☐ Geomorp	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Coordinates) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) whic Position (D2)
DROLOGY etland Hydrology Ind imary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drift deposits (B3) Algal Mat or Crust (B4)	one is suffi ) 2)	cient)	Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated Co its (B15) Sulfide Odo Water Tal	oncave Surf or (C1) ole (C2)		☐ Water State ☐ Drainage ☐ Oxidized ☐ Presence ☐ Salt Depot ☐ Stunted of ☑ Geomorp ☐ Shallow #	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Ci of Reduced Iron (C4) osits (C5) or Stressed Plants (D1)
TOROLOGY etland Hydrology Ind imary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) P Algal Mat or Crust (B4)	one is suffi	cient)	Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated Co its (B15) Sulfide Odo Water Tal	oncave Surf or (C1) ole (C2)		Water Sta	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Coof Reduced Iron (C4) Desits (C5) Der Stressed Plants (D1) Shic Position (D2) Aquitard (D3)
DROLOGY  etland Hydrology Ind imary Indicators (and Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (E	one is suffi		Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated Co its (B15) Sulfide Odo Water Tal	oncave Surf or (C1) ole (C2)		Water Sta	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Cion of Reduced Iron (C4) Desits (C5) Desits (C5) Desits (C5) Desits (C5) Desits (D1) Desition (D2) Aquitard (D3) Desitor Relief (D4)
TDROLOGY  etland Hydrology Ind imary Indicators (an) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (E1)	one is suffi		Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated Co its (B15) Sulfide Odo Water Tal ain in Rem	oncave Surf or (C1) ole (C2)		Water Sta	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Ci of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) chic Position (D2) Aquitard (D3) ographic Relief (D4)
DROLOGY  etland Hydrology Ind imary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B4) Surface Water Present?	one is suffi	No •	Sparsely Ve Marl Depos Hydrogen S Dry-Seasor Other (Expl	egetated Co its (B15) Sulfide Odo Water Tal ain in Rem	oncave Surf or (C1) ole (C2)	ace (B8)	Water Stall Drainage  Oxidized  Presence  Salt Depo  Stunted of  Geomorp  Shallow A  Microtopo  FAC-neut	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Ci of Reduced Iron (C4) posits (C5) por Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) poral Test (D5)
TDROLOGY  etland Hydrology Ind imary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B4) Surface Water Present? eter Table Present? turation Present?	one is suffi	No •	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated Co its (B15) Sulfide Odo Water Tal ain in Rem ches):	oncave Surf or (C1) ole (C2)	ace (B8)	Water Sta	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Ci of Reduced Iron (C4) posits (C5) pr Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) paral Test (D5)
**TOROLOGY**  **TOROLOGY**  **Etland Hydrology Ind**  **Imary Indicators (any.)*  **Imary Indicators (any.)*  **Imary Indicators (any.)*  **Imary Indicators (any.)*  **Imary Indicators (B1)*  **Imary Indicators (B2)*  **Imary Indicators (B3)*  **Imary Indicators (B1)*  **Imary Indicators (B3)*  *Imary Indicators (B3	r one is suffi )  22)  4)  46)  Yes   Yes   Yes   Yes	No © No O	Sparsely Ve Marl Depos Hydrogen S Dry-Seasor Other (Expl	egetated Co its (B15) Sulfide Odo Water Tal ain in Rem ches):	oncave Surf	wet	Water Str. Drainage Oxidized Presence Salt Depo Stunted of Geomorp Shallow A Microtopo FAC-neut	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Citor of Reduced Iron (C4) posits (C5) por Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) poral Test (D5)
**TOROLOGY**  **	r one is suffi )  22)  4)  46)  Yes   Yes   Yes   Yes	No © No O	Sparsely Ve Marl Depos Hydrogen S Dry-Seasor Other (Expl	egetated Co its (B15) Sulfide Odo Water Tal ain in Rem ches):	oncave Surf	wet	Water Str. Drainage Oxidized Presence Salt Depo Stunted of Geomorp Shallow A Microtopo FAC-neut	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Citor of Reduced Iron (C4) posits (C5) por Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) poral Test (D5)
Marks:  "DROLOGY etland Hydrology Ind rimary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) I ron Deposits (B5)	r one is suffi )  22)  4)  46)  Yes   Yes   Yes   Yes	No © No O	Sparsely Ve Marl Depos Hydrogen S Dry-Seasor Other (Expl	egetated Co its (B15) Sulfide Odo Water Tal ain in Rem ches):	oncave Surf	wet	Water Str. Drainage Oxidized Presence Salt Depo Stunted of Geomorp Shallow A Microtopo FAC-neut	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Ci of Reduced Iron (C4) posits (C5) por Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) poral Test (D5)
TDROLOGY  etland Hydrology Ind  imary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Inon Deposits (B5) Surface Soil Cracks (B2) Surface Soil Cracks (B2) Iron Deposits (B3) Iron Deposits (B5) Surface Soil Cracks (B3) Iron Deposits (B4) Iron Deposits (B5) Surface Soil Cracks (B4) Iron Deposits (B5) Surface Soil Cracks (B4) Iron Deposits (B5) Coracks (B4) Iron Deposits (B5) Surface Soil Cracks (B4) Iron Deposits (B5) Coracks (B4) Iron Deposits (B5) Iron Deposits (B5) Surface Soil Cracks (B4) Iron Deposits (B5) Iron Deposits (B5) Iron Deposits (B5) Iron Deposits (B5) Surface Soil Cracks (B4) Iron Deposits (B5) Iron Deposits (B	Yes Yes • gauge, mon	No O No O No O itor well, a	Sparsely Ve Marl Depos Hydrogen S Dry-Seasor Other (Expl  Depth (in Depth (in Depth (in	egetated Co its (B15) Sulfide Odo Water Tal ain in Rem ches):	oncave Surf	wet	Water Str. Drainage Oxidized Presence Salt Depo Stunted of Geomorp Shallow A Microtopo FAC-neut	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (Ci of Reduced Iron (C4) posits (C5) por Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) poral Test (D5)

## **GMT2-04**

PEM1F

Wetland Functional Class: Semi-permanently Flooded Wet Graminoid Meadow

Wildlife Habitat: Non-patterned Wet Sedge Tundra



Hydric Soil Indicators: Histosol

Wetland Hydrology Indicators: High water table, saturation, algal matt, iron deposits



Project/Site: GMT2		Borough/C	City:	North Slo	ope Borough Sampling Date: 21-Jul-15
Applicant/Owner: Conoco Phillips Alaska, Inc. (CPAI)					Sampling Point: GMT2-05
nvestigator(s): WAD, EKJ		Landforn	n (hillsi	de, terrac	ce, hummocks etc.): basin
ocal relief (concave, convex, none): concave		_ Slope:	(	% /	° Elevation: 88
Subregion : Northern Alaska	Lat.:		316666	 667	Long.: -151.59698 Datum:
soil Map Unit Name:		70110000	310000	-	NWI classification: pubh
Are climatic/hydrologic conditions on the site typical for this ti	imo of vo	or?	Vac (	No O	<del></del>
Are Vegetation, Soil, or Hydrology	significan naturally	itly disturbe problemati	ed? c?	Are "N (If nee	Normal Circumstances" present? Yes  No  eded, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes  No			1- 41-	0	ulad Ava
Hydric Soil Present? Yes ● No ○				_	pled Area
Wetland Hydrology Present? Yes ● No ○			with	in a We	etland? Yes ◉ No
Remarks: small partially drained pond					
<b>/EGETATION -</b> Use scientific names of plants. Li	ist all sp	oecies in	the p	lot.	
	Absolut	e Domin	ant I	Indicator	Dominance Test worksheet:
Tree Stratum  1.	% Cove	r Specie	es?	Status	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
	-		_ ¬		Total Number of Dominant
2. 3.		-	_ ¬		Species Across All Strata: 2 (B)
		-	_ ¬		Percent of dominant Species
			_ 		That Are OBL, FACW, or FAC: 100.0% (A/B
Total Cover  Sapling/Shrub Stratum 50% of Total Cover:		_ — !% of Total (	_ Cover:		Prevalence Index worksheet: Total % Cover of: Multiply by:
		Г	7		OBL Species 2 x 1 = 2
1 2.		-	_		FACW Species x 2 =
					FAC Species x 3 =0
		-	ī		FACU Species x 4 =
5.		_			UPL Species
6.		_			Column Totals: 2 (A) 2 (B)
7.		_			Prevalence Index = B/A = 1.000
8.					
9.					Hydrophytic Vegetation Indicators:
10.					✓ Dominance Test is > 50%
Total Cover	: 0				✓ Prevalence Index is ≤3.0
	0 20	% of Total (	Cover:	0	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
1. Carex aquatilis	1	~		OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Eriophorum angustifolium	4	_		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3.		_			be present, unless disturbed or problematic.
4	0	_			
5		-			Plot size (radius, or length x width)
6		-	_		% Cover of Wetland Bryophytes
7		-			(Where applicable)
8		-			% Bare Ground
9		-	_ _		Total Cover of Bryophytes
4.0	0		_		Hydrophytic
10					Vegetation
10	: 2	_	Over.	0.4	Vegetation Present? Yes ● No ○

Depth M	atrix	Re	dox Featı	ıres			
inches) Color (mois	st)%	Color (moist)	%	Type <sup>1</sup>	<u>Loc</u> 2	Texture	Remarks
		- <u></u>					
						_	
ype: C=Concentration. D=[	Depletion. RM=Re					annel. M=Matrix	
dric Soil Indicators:		Indicators for			Soils <sup>3</sup> :		
Histosol or Histel (A1)		Alaska Color				Alaska Gleyed Without	Hue 5Y or Redder
Histic Epipedon (A2)		Alaska Alpine				Underlying Layer	
Hydrogen Sulfide (A4)		☐ Alaska Redox	With 2.5Y	Hue		✓ Other (Explain in Rema	rks)
Thick Dark Surface (A12)	)	3 One indicator	of hydroph	vtic vegetat	ion one re	imary indicator of wotland h	wdrology
Alaska Gleyed (A13)		and an appropri				rimary indicator of wetland horesent.	iyurology,
Alaska Redox (A14)	-,	4					
Alaska Gleyed Pores (A15	o)	<sup>4</sup> Give details of	color char	ige in Rema	ırks.		
strictive Layer (if present):							
Type: unknown						Hydric Soil Present	? Yes • No ·
Depth (inches):							
pit, innundated pond							
DROLOGY							
	tors:					Secondary Indi	icators (2 or more required)
etland Hydrology Indica							icators (2 or more required)
etland Hydrology Indica imary Indicators (any o		☐ Inundation	Visible on	Aerial Imac	nery (B7)		ed Leaves (B9)
etland Hydrology Indica imary Indicators (any o Surface Water (A1)		☐ Inundation ☐ Sparsely Ve		_		Water Staine  Drainage Pa	ed Leaves (B9) tterns (B10)
etland Hydrology Indica imary Indicators (any o Surface Water (A1) High Water Table (A2)			egetated Co	_		Water Staine Drainage Pa Oxidized Rhi	ed Leaves (B9) tterns (B10)
etland Hydrology Indica imary Indicators (any o Surface Water (A1) High Water Table (A2)		Sparsely Ve	egetated Co its (B15)	oncave Surf		Water Staine Drainage Pa Oxidized Rhi	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4)
etland Hydrology Indica imary Indicators (any o Surface Water (A1) High Water Table (A2) Saturation (A3)		Sparsely Ve	egetated Co its (B15) Sulfide Odo	oncave Surf		Water Staine Drainage Pa Oxidized Rhi Presence of Salt Deposite	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4)
etland Hydrology Indica rimary Indicators (any o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)		Sparsely Ve Marl Depos Hydrogen S	egetated Co its (B15) Sulfide Odo ı Water Tal	oncave Surf or (C1) ble (C2)		Water Staine Drainage Pa Oxidized Rhi Presence of Salt Deposite	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) tressed Plants (D1)
etland Hydrology Indicatimary Indicators (any of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3)		Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated Co its (B15) Sulfide Odo ı Water Tal	oncave Surf or (C1) ble (C2)		Water Staine Drainage Pa Oxidized Rhi Presence of Salt Deposite Stunted or S	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) ttressed Plants (D1) Position (D2)
etland Hydrology Indicatimary Indicators (any of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4)		Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated Co its (B15) Sulfide Odo ı Water Tal	oncave Surf or (C1) ble (C2)		□ Water Staine     □ Drainage Pa     □ Oxidized Rhi     □ Presence of     □ Salt Deposite     □ Stunted or S     ☑ Geomorphic     □ Shallow Aqu	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) ttressed Plants (D1) Position (D2)
etland Hydrology Indica imary Indicators (any o 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 (B6) Surface Soil Cracks (B6)		Sparsely Ve Marl Depos Hydrogen S Dry-Season	egetated Co its (B15) Sulfide Odo ı Water Tal	oncave Surf or (C1) ble (C2)		□ Water Staine     □ Drainage Pa     □ Oxidized Rhi     □ Presence of     □ Salt Deposite     □ Stunted or S     ☑ Geomorphic     □ Shallow Aqu	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) tressed Plants (D1) Position (D2) itard (D3) aphic Relief (D4)
etland Hydrology Indica rimary Indicators (any o 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) Surface Soil Cracks (B6)	ne is sufficient)	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated Co its (B15) Sulfide Odo I Water Tal lain in Rem	oncave Surf or (C1) ble (C2) narks)		Water Staine Drainage Pa Oxidized Rhi Presence of Salt Deposite Stunted or S Geomorphic Shallow Aqu Microtopogra	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) tressed Plants (D1) Position (D2) itard (D3) aphic Relief (D4)
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etland Hydrology Indicationary Indicators (any of 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) Surface Soil Cracks (B6) eld Observations: Irface Water Present?	Yes  No Yes No	Sparsely Ve	egetated Co its (B15) Sulfide Odc Water Tal ain in Rem	oncave Surf or (C1) ble (C2) narks)	race (B8)	Water Staine Drainage Pa Oxidized Rhi Presence of Salt Deposite Stunted or S Geomorphic Shallow Aqu Microtopogra	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) tressed Plants (D1) Position (D2) itard (D3) aphic Relief (D4) Test (D5)
etland Hydrology Indicationary Indicators (any of 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) Surface Soil Cracks (B6) eld Observations: urface Water Present? ater Table Present?	ne is sufficient)  Yes  No	Sparsely Ve	egetated Co its (B15) Sulfide Odco Water Tal lain in Rem ches):	oncave Surf or (C1) ble (C2) narks)	race (B8)	Water Stains  □ Drainage Pa  □ Oxidized Rhi  □ Presence of  □ Salt Deposits  □ Stunted or S  ☑ Geomorphic  □ Shallow Aqu  □ Microtopogra  □ FAC-neutral	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) tressed Plants (D1) Position (D2) itard (D3) aphic Relief (D4) Test (D5)
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Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) eld Observations: urface Water Present? atter Table Present? atturation Present? includes capillary fringe) ecorded Data (stream ga	Yes No Yes No	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated Co its (B15) Sulfide Odco Water Tal lain in Rem ches):	oncave Surf	Wet	Water Stains  □ Drainage Pa  □ Oxidized Rhi  □ Presence of  □ Salt Deposits  □ Stunted or S  ☑ Geomorphic  □ Shallow Aqu  □ Microtopogra  □ FAC-neutral	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) tressed Plants (D1) Position (D2) itard (D3) aphic Relief (D4) Test (D5)
rimary Indicators (any o 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)  Surface Soil Cracks (B6)  eld Observations:  urface Water Present?  atter Table Present?  atteration Present?  ncludes capillary fringe)	Yes No Yes No	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated Co its (B15) Sulfide Odco Water Tal lain in Rem ches):	oncave Surf	Wet	Water Stains  □ Drainage Pa  □ Oxidized Rhi  □ Presence of  □ Salt Deposits  □ Stunted or S  ☑ Geomorphic  □ Shallow Aqu  □ Microtopogra  □ FAC-neutral	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) tressed Plants (D1) Position (D2) itard (D3) aphic Relief (D4) Test (D5)
etland Hydrology Indica imary Indicators (any o 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) Surface Soil Cracks (B6) eld Observations: rface Water Present? ater Table Present? turation Present? cludes capillary fringe) corded Data (stream ga	Yes No Yes No	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated Co its (B15) Sulfide Odco Water Tal lain in Rem ches):	oncave Surf	Wet	Water Stains  □ Drainage Pa  □ Oxidized Rhi  □ Presence of  □ Salt Deposits  □ Stunted or S  ☑ Geomorphic  □ Shallow Aqu  □ Microtopogra  □ FAC-neutral	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) tressed Plants (D1) Position (D2) itard (D3) aphic Relief (D4) Test (D5)
etland Hydrology Indica imary Indicators (any o 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) Surface Soil Cracks (B6) eld Observations: rface Water Present? ater Table Present? turation Present? cludes capillary fringe) corded Data (stream ga	Yes No Yes No	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated Co its (B15) Sulfide Odco Water Tal lain in Rem ches):	oncave Surf	Wet	Water Stains  □ Drainage Pa  □ Oxidized Rhi  □ Presence of  □ Salt Deposits  □ Stunted or S  ☑ Geomorphic  □ Shallow Aqu  □ Microtopogra  □ FAC-neutral	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) tressed Plants (D1) Position (D2) itard (D3) aphic Relief (D4) Test (D5)
triand Hydrology Indicationary Indicators (any of 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) Surface Soil Cracks (B6) High Observations: face Water Present? ter Table Present? turation Present? cludes capillary fringe) corded Data (stream ga	Yes No Yes No	Sparsely Ve Marl Depos Hydrogen S Dry-Season Other (Expl	egetated Co its (B15) Sulfide Odco Water Tal lain in Rem ches):	oncave Surf	Wet	Water Stains  □ Drainage Pa  □ Oxidized Rhi  □ Presence of  □ Salt Deposits  □ Stunted or S  ☑ Geomorphic  □ Shallow Aqu  □ Microtopogra  □ FAC-neutral	ed Leaves (B9) tterns (B10) zospheres along Living Roots (C3 Reduced Iron (C4) s (C5) tressed Plants (D1) Position (D2) itard (D3) aphic Relief (D4) Test (D5)

pubh

Wetland Functional Class: Permanently Flooded Pond Wildlife Habitat: Shallow Open Water with no Islands



Hydric Soil Indicators: No pit, innundated

Wetland Hydrology Indicators: Permanently flooded



Project/Site: GMT2	Е	Borough/City:	North Slo	pe Borough Sampling Date: 21-Jul-15
Applicant/Owner: Conoco Phillips Alaska, Inc. (CPAI)				Sampling Point: GMT2-06
nvestigator(s): WAD, EKJ		Landform (hill	side, terrac	e, hummocks etc.): small bluuff
Local relief (concave, convex, none): convex			% / 2.0	
Subregion : Northern Alaska	Lat ·	70.18894		Long.: -151.597735 Datum:
Soil Map Unit Name:		70.10034		
		0 V	No ○	NWI classification: Upland
	significantl naturally pi	y disturbed? roblematic?	Are "N (If nee	(If no, explain in Remarks.)  Iormal Circumstances" present? Yes No No deded, explain any answers in Remarks.)
	wing ban	ipinig point	1000110110	s, transcoto, important roditiros, etc.
Hydrophytic Vegetation Present? Yes No No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: bluff at the edge of a drained lake basin			the Samp thin a We	oled Area etland? Yes ◯ No ◉
<b>/EGETATION -</b> Use scientific names of plants. L	ist all spe			Dominance Test worksheet:
Tree Stratum	% Cover		Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:5(A)
2				Total Number of Dominant
3.				Species Across All Strata: 6 (B)
4				Percent of dominant Species That Are OBL, FACW, or FAC: 83.3% (A/I
5Total Cover				Prevalence Index worksheet: Total % Cover of: Multiply by:
Sapling/Shrub Stratum 50% of Total Cover:	0 20%	of Total Cover:	0	OBL Species 0 x 1 = 0
Cassiope tetragona	35	✓	FACU	FACW Species 36 x 2 = 72
Salix richardsonii	10	<b>✓</b>	FACW	FAC Species 54 x 3 = 162
3. Salix pulchra	5		FACW	FACU Species 37 x 4 = 148
4. Rhododendron tomentosum	10	<b>~</b>	FACW	UPL Species 1 x 5 = 5
5. Vaccinium vitis-idaea	5		FAC	
6. Salix rotundifolia ssp. dodgeana	2		UPL	Column Totals: <u>128</u> (A) <u>387</u> (E
7. Salix reticulata	5		FAC	Prevalence Index = B/A = 3.023
8. Dryas integrifolia			FACU	Hydrophytic Vegetation Indicators:
9. Betula nana			FAC	✓ Dominance Test is > 50%
10.	0			✓ Prevalence Index is ≤3.0
Total Cover  50% of Total Cover:		of Total Cover	:14.8	Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1. Carex bigelowii	25	<b>✓</b>	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Bistorta officinalis	10	<b>✓</b>	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Saussurea angustifolia			FAC	be present, unless disturbed or problematic.
4. Eriophorum vaginatum	10	<b>✓</b>	FACW	
5. Anthoxanthum monticola ssp. alpinum	1		FACU	Plot size (radius, or length x width)
6. Festuca rubra	1		FAC	% Cover of Wetland Bryophytes 0
7. Poa arctica	1		FAC	(Where applicable)
8. Pedicularis groenlandica			FACW	% Bare Ground0
	0			Total Cover of Bryophytes
9				Hadronkatio
10	0			Hydrophytic
10. Total Cover	0 54	of Total Cover:	10.8	Vegetation Present?  Yes  No

Depth	Matrix  Color (moist) %			to document the indicator or confirm the absence of indicators)  Redox Features						
(inches)			%	Color (moist)		%	Type <sup>1</sup>	<u>Loc</u> 2	Texture	Remarks
0-3			100						Mucky Peat	
3-10	10YR	4/3	80	10YR	4/2	20	RM	M	Clay Loam	
10-11	10YR	3/2	100						Silt Loam	
11-13	10YR	3/3	100						Loamy Sand	
13-18	10YR	4/2	100						Loamy Sand	
						-		-	-	
T 6.6					2					
		=Depletion.	RM=Redu						annel. M=Matrix	
Hydric Soil I					ators for P ska Color Cl		atic Hydric	Solls':		
_	or Histel (A1) pedon (A2)				ska Color C ska Alpine s		-		Alaska Gleyed With Underlying Layer	nout Hue 5Y or Redder
=	Sulfide (A4)				ska Redox \				Other (Explain in F	Remarks)
¬ ' -	k Surface (A1)	2)			Sita ricadx i	WIGH 2131	Tide		outer (Explain in )	certaine)
_	eyed (A13)	_,							imary indicator of wetla	and hydrology,
_	dox (A14)			and a	n appropria	te landsc	ape position	must be p	resent.	
Alaska Gle	eyed Pores (A	15)		<sup>4</sup> Give	details of c	olor char	nge in Rema	rks.		
estrictive Lay	er (if present)	):								
Type: se	asonal frost								Hydric Soil Pres	sent? Yes No •
Depth (inc	hes): 18									
emarks:										
emarks:		cators:							Secondary	Indicators (2 or more required)
emarks:  YDROLO  Vetland Hyd	o <b>G</b> Y		ficient)							Indicators (2 or more required) Stained Leaves (B9)
YDROLO Yetland Hyd	OGY Irology Indic		ficient)	I	nundation V	isible on	Aerial Imag	ery (B7)	Water 9	
YDROLO  Yetland Hyd  Irimary Indi  Surface V	OGY Irology Indic cators (any	one is suf	îcient)				Aerial Imag oncave Surfa		Water S	Stained Leaves (B9) ge Patterns (B10)
YDROLO Yetland Hyd rimary Indi Surface V High Wat Saturatio	Irology Indicicators (any Water (A1) ter Table (A2) n (A3)	one is suf	ficient)	☐ S	parsely Veg Iarl Deposit	jetated C s (B15)	oncave Surfa		Water S Drainag Oxidize Presend	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 ce of Reduced Iron (C4)
YDROLO Yetland Hyd rimary Indi Surface V High Wat Saturatio	Irology Indicicators (any Water (A1) ter Table (A2) n (A3)	one is suf	îcient)	☐ S	parsely Veg	jetated C s (B15)	oncave Surfa		Water S Drainag Oxidize	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 ce of Reduced Iron (C4)
YDROLO Vetland Hyd Primary Indi Surface V High Wat Saturatio Water Ma	Irology Indicators (any Water (A1) Water Table (A2) In (A3) Aarks (B1)	one is suf	cicient)	S   M   H   C	parsely Veg Iarl Deposit lydrogen Su Pry-Season V	jetated C s (B15) ilfide Odo Water Ta	oncave Surfa or (C1) ble (C2)		Water S Drainag Oxidize Presenc Salt De Stunted	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 te of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1)
YDROLO Yetland Hyd Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift depo	PGY Irology Indicidents (any Water (A1) For Table (A2) For (A3) For (B1) For (B2) For (B2) For (B3) For (B3) For (B3)	one is suf	îcient)	S   M   H   C	parsely Veg Iarl Deposit Iydrogen Su	jetated C s (B15) ilfide Odo Water Ta	oncave Surfa or (C1) ble (C2)		Water S Drainag Oxidize Presend Salt De Stunted Geomo	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 te of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2)
YDROLO  /etland Hyd  Primary Indi  Surface V  High Wate  Saturatio  Water Ma  Sediment  Drift depo	Irology Indic cators (any Water (A1) rer Table (A2) n (A3) arks (B1) t Deposits (B2 osits (B3) or Crust (B4)	one is suf	îcient)	S   M   H   C	parsely Veg Iarl Deposit lydrogen Su Pry-Season V	jetated C s (B15) ilfide Odo Water Ta	oncave Surfa or (C1) ble (C2)		Water S Drainag Oxidize Presend Salt De Stunted Geomoi	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 de of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2) v Aquitard (D3)
YDROLO /etland Hyd Primary Indi Surface V High Wate Ma Sediment Drift depo	Irology Indicipators (any Water (A1) For Table (A2) For (A3) For (B1) For Court (B2) For Crust (B4) For Crust (B4) For Crust (B5)	one is suf	îcient)	S   M   H   C	parsely Veg Iarl Deposit lydrogen Su Pry-Season V	jetated C s (B15) ilfide Odo Water Ta	oncave Surfa or (C1) ble (C2)		Water S Drainag Oxidize Presend Salt De Stunted Geomol Shallow Microto	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 de of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2) I Aquitard (D3) pographic Relief (D4)
YDROLO  /etland Hyd  Primary Indi  Surface V  High Wat  Saturatio  Water Ma  Sediment  Drift depo  Algal Mat  Iron Depo  Surface S	Irology Indicicators (any Water (A1) ter Table (A2) in (A3) arks (B1) it Deposits (B2) cosits (B3) osits (B5) Soil Cracks (B6)	one is suf	ficient)	S   M   H   C	parsely Veg Iarl Deposit lydrogen Su Pry-Season V	jetated C s (B15) ilfide Odo Water Ta	oncave Surfa or (C1) ble (C2)		Water S Drainag Oxidize Presend Salt De Stunted Geomol Shallow Microto	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 de of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2) v Aquitard (D3)
YDROLO Vetland Hyd Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift depo Algal Mat Iron Depo Surface S ield Observ	Irology Indicactors (any Water (A1) ere Table (A2) in (A3) arks (B1) it Deposits (B2) cosits (B3) ere Crust (B4) osits (B5) Soil Cracks (B6) ations:	one is suf		S   M   H   C	parsely Veg Marl Deposit Iydrogen Su Dry-Season N Other (Expla	getated Co s (B15) Ilfide Odo Water Ta in in Rem	oncave Surfa or (C1) ble (C2)		Water S Drainag Oxidize Presend Salt De Stunted Geomol Shallow Microto	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 ge of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2) v Aquitard (D3) pographic Relief (D4)
YDROLO /etland Hyd Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift depo Algal Mat Iron Dep Surface S ield Observ.	Irology Indicators (any Water (A1) Her Table (A2) In (A3) Her (B1) Her (B3) Her (B4) Her (B4) Her (B4) Her (B4) Her (B5) Her (B6) Her (	one is suff	) No •		parsely Veg farl Deposit lydrogen Su Dry-Season V Other (Expla Depth (inch	etated Cos (B15)  Ilfide Odo Water Ta in in Rem	oncave Surfa or (C1) ble (C2)	ace (B8)	Water S Drainag Oxidize Present Salt De Stunted Geomo Shallow Microto FAC-ne	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 te of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2) / Aquitard (D3) pographic Relief (D4) utral Test (D5)
YDROLO /etland Hyd Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift depo Algal Mat Iron Depo Surface S ield Observ. urface Water /ater Table P	Irology Indicators (any Water (A1) Irer Table (A2) In (A3) Irer Table (A2) Irer Table (A3) Ire	one is suff	) No (•)		parsely Veg Marl Deposit Iydrogen Su Dry-Season N Other (Expla	etated Cos (B15)  Ilfide Odo Water Ta in in Rem	oncave Surfa or (C1) ble (C2)	ace (B8)	Water S Drainag Oxidize Presend Salt De Stunted Geomol Shallow Microto	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 te of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2) / Aquitard (D3) pographic Relief (D4) utral Test (D5)
YDROLO /etland Hyd Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift depo Algal Mat Iron Dep Surface S ield Observ. urface Water Table P aturation Pre	Irology Indicators (any Water (A1) For Table (A2) In (A3) For Crust (B4) For Crust (B4) For Crust (B5) For Crust (B6) For Crust (B7) For Crust (B8) For C	one is suff	) No (•)		parsely Veg farl Deposit lydrogen Su Dry-Season V Other (Expla Depth (inch	etated Cos (B15)  Ilfide Odc Water Ta  in in Rem  nes):	oncave Surfa or (C1) ble (C2)	ace (B8)	Water S Drainag Oxidize Present Salt De Stunted Geomo Shallow Microto FAC-ne	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 te of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2) / Aquitard (D3) pographic Relief (D4) utral Test (D5)
YDROLO Yetland Hyd Trimary Indi Surface V High Wat Saturatio Water Ma Sediment Drift depo Algal Mat Iron Depo Surface S Seleld Observation Vater Table P Baturation Pre Includes capil	Irology Indicators (any Water (A1) For Table (A2) In (A3) For Crust (B4) For Crust (B4) For Crust (B5) For Crust (B6) For Crust (B7) For Crust (B8) For C	yes C	No (a)		parsely Veg farl Deposit lydrogen Su pry-Season N bther (Expla  Depth (inch Depth (inch	petated Cos (B15) Ilfide Odo Water Ta in in Rem  nes):  nes):	oncave Surfa	Wet	Water S Drainag Oxidize Present Salt De Stunted Geomo Shallow Microto FAC-ne	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 te of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rrphic Position (D2) / Aquitard (D3) pographic Relief (D4) utral Test (D5)
YDROLO Vetland Hyd Primary Indi Surface V High Wate Sediment Sediment Drift depo Algal Mat Iron Depo Surface S Field Observ. Surface Water Water Table P Saturation Pre includes capil	Irology Indicitators (any Water (A1) For Table (A2) For Table (A2) For Table (A2) For Table (B3) For Crust (B4) For Crust (B4) For Crust (B5) For Crust (B6) For Crust (B7) For Crust (B8)	yes C	No (a)		parsely Veg farl Deposit lydrogen Su pry-Season N bther (Expla  Depth (inch Depth (inch	petated Cos (B15) Ilfide Odo Water Ta in in Rem  nes):  nes):	oncave Surfa	Wet	Water S Drainag Oxidize Present Salt De Stunted Geomo Shallow Microto FAC-ne	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 te of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rphic Position (D2) / Aquitard (D3) pographic Relief (D4) utral Test (D5)
YDROLO /etland Hyd Primary Indi Surface V High Wat Saturatio Water Ma Sediment Drift depo Algal Mat Iron Depo Surface S ield Observ urface Water /ater Table P aturation Pre ncludes capil ecorded Dar	Irology Indicitators (any Water (A1) For Table (A2) For Table (A2) For Table (A2) For Table (B3) For Crust (B4) For Crust (B4) For Crust (B5) For Crust (B6) For Crust (B7) For Crust (B8)	Yes Yes Capauge, mo	No (a) No (b) No (c) No (c)		parsely Veg farl Deposit lydrogen Su pry-Season N bther (Expla  Depth (inch Depth (inch	petated Cos (B15) Ilfide Odo Water Ta in in Rem  nes):  nes):	oncave Surfa	Wet	Water S Drainag Oxidize Present Salt De Stunted Geomo Shallow Microto FAC-ne	Stained Leaves (B9) ge Patterns (B10) d Rhizospheres along Living Roots (C3 te of Reduced Iron (C4) posits (C5) d or Stressed Plants (D1) rrphic Position (D2) / Aquitard (D3) pographic Relief (D4) utral Test (D5)

Upland

Wetland Functional Class: Upland
Wildlife Habitat: Moist Tussock Tundra



Hydric Soil Indicators: no hydric soil indicators
Wetland Hydrology Indicators: no hydrology indicators



y <del>e</del> ci	Site: GMT2				orough/City:	North Slop	pe Borough Sampling Date:	21-Jul-15
olica	nt/Owner: Conoco Phillips A	laska, Inc. (Cl	PAI)				Sampling Point:	MT2-07
stiç	ator(s): WAD, EKJ				andform (hil	lside, terrac	e, hummocks etc.): Flat	
al r	elief (concave, convex, none):	flat			Slope: 0.0	% / 0.0	_° Elevation: 101	
eg	ion: Northern Alaska			Lat.: 7	0.21076666	— 66667	Long.: -151.584118333333 Datu	ım:
Ма	o Unit Name:			_			NWI classification: pem1/ss1	h
	 natic/hydrologic conditions on t	he site tynical	for this ti	ime of vear?	Yes	No ○	(If no, explain in Remarks.)	
	egetation  , Soil	, or Hydrology		significantly			ormal Circumstances" present? Yes	No O
	egetation  , Soil	, or Hydrology		naturally pro			ded, explain any answers in Remarks.)	
	- <b>9</b>	,,	, —			(11 1100	aca, explain any anowers in Nomana.,	
M۱	<b>IARY OF FINDINGS -</b> At	tach site m	ap sho	wing sam	pling point	locations	s, transects, important features, etc	o.
Ну	Irophytic Vegetation Present?	Yes	No O		I-	4la a C a	alad Awar	
Hv	Iric Soil Present?	Yes	No 🔾			-	oled Area	
-	tland Hydrology Present?	Yes	No O		Wi	thin a We	etland? Yes ● No	
ken	narks: mosstly non patterned t	ussock ttundr	a, very sl	light slope, i	no surface dr	anage featu	res as mapped. This site is borderline wetl	and
ЗE	TATION - Use scientific	names of pl	lants. Li	ist all spe	cies in the	plot.		
				Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tr	ee Stratum			% Cover	Species?	Status	Number of Dominant Species	
1.								4 (A)
2.				-			Total Number of Dominant	4 (D)
3.							· -	4 (B)
1.							Percent of dominant Species That Are OBL, FACW, or FAC: 100	.0% (A/B
5.								.070
		Tot	tal Cover	:			Prevalence Index worksheet:  Total % Cover of: Multiply by:	
ар	ing/Shrub Stratum	50% of Total Co	over:	0 20%	of Total Cover	:0	. , ,	
1.	Salix pulchra			10	<b>✓</b>	FACW	OBL Species 5 x 1 =	5
2.	Calify retinulate			5		FAC		130
3.	Detule nene			10	<b>✓</b>	FAC	FAC Species x 3 = FACU Species x 4 =	87
1.	Rhododendron tomentosum			10	<b>✓</b>	FACW		0
5.	Empetrum nigrum			4		FAC		0
3.	Vaccinium vitis-idaea			5		FAC	Column Totals: <u>99</u> (A) _	222 (B)
7.				0			Prevalence Index = B/A = 2.2	242
3.				0			Hydrophytic Vegetation Indicators:	
9.							Dominance Test is > 50%	
).				0			✓ Prevalence Index is ≤3.0	
			tal Cover				Morphological Adaptations <sup>1</sup> (Provide sup	vacetina data ir
Н	erb Stratum	50% of Total Co	over:	20.5 20%	of Total Cover	: 8.2	Remarks or on a separate sheet)	porting data ii
	Eriophorum vaginatum			45	<b>✓</b>	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Ex	plain)
	Caray bigalawii			5		FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrolog	gy must
3.	Distorta officinalis			3		FAC	be present, unless disturbed or problematic.	
1.	Eriophorum angustifolium			5		OBL		
5.				0			Plot size (radius, or length x width)	
_				0			% Cover of Wetland Bryophytes	0
7.				0			(Where applicable)	
3.								0
9.				0			Total Cover of Bryophytes	_10
٥.				0			Hydrophytic	
			tal Cover				Vegetation Present? Yes ● No ○	
		50% of Total Co	over:	29 20% (	of Total Cover	: 116	FICSCIIL: ICS S INO S	

<i>D</i> epui — — — — — — — — — — — — — — — — — — —	Matrix		cument the indicator or confirm the absence of indicators)  Redox Features						
Depth inches) Color (mo	oist)	%	Color (m	noist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3		100						Fibric Organic	
3-4		100						Hemic Organic	
4-8 2.5Y	4/2	85	10YR	4/4	15	RM	PL	Silty Clay Loam	
8-11		100						Hemic Organic	
									'
							-	-	-
pe: C=Concentration. D:	-Doplotion [	PM-Poduc	od Matrix	2 Location	. DI –Dor	o Lining PC		annol M-Matrix	-
dric Soil Indicators:	– Depletion. F	XIII—Reduc				tic Hydric		arrici. M-Macrix	
Histosol or Histel (A1)				ska Color C				Alaska Gleyed Withou	t Hue 5V or Pedder
Histic Epipedon (A2)				ska Alpine s		-		Underlying Layer	tilide 31 of Reddel
Hydrogen Sulfide (A4)			<b>✓</b> Ala	ska Redox '	With 2.5Y	Hue		Other (Explain in Rem	narks)
Thick Dark Surface (A1	.2)								
Alaska Gleyed (A13)						ytic vegetat ape position		imary indicator of wetland present.	hydrology,
Alaska Redox (A14)							·	., 650116	
Alaska Gleyed Pores (A	15)		<sup>4</sup> Give	details of o	color char	nge in Rema	rks.		
rictive Layer (if present)	١.								
Type: seasonal frost	•							Hydric Soil Presen	t? Yes   No
Depth (inches): 11									
arks:									
								Connectow In	diantore (2 or more required)
tland Hydrology Indic		cient)							
tland Hydrology Indic mary Indicators (any		cient)		nundation \	/isible on	Aerial Imag	erv (87)	Water Stai	ned Leaves (B9)
tland Hydrology Indic mary Indicators (any	one is suffi	cient)				Aerial Imag		Water Stai	ned Leaves (B9) Patterns (B10)
tland Hydrology Indic mary Indicators (any Surface Water (A1)	one is suffi	cient)	☐ s		getated Co	Aerial Imag oncave Surf		☐ Water Stai☐ Drainage F☐ Oxidized R	ned Leaves (B9) Patterns (B10)
tland Hydrology Indic mary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3)	one is suffi	cient)	☐ S ☐ M	parsely Veg	getated Co ts (B15)	oncave Surf		☐ Water Stai☐ Drainage F☐ Oxidized R	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (G f Reduced Iron (C4)
cland Hydrology Indic mary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2	one is suffi	cient)	☐ S ☐ M ☐ H	iparsely Veg Iarl Deposit	getated Co ts (B15) ulfide Odo	oncave Surf or (C1)		Water Stai Drainage F Oxidized R Presence o Salt Depos Stunted or	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C f Reduced Iron (C4) its (C5) Stressed Plants (D1)
tland Hydrology Indic mary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3)	one is suffice	cient)	☐ S ☐ M ☐ H	iparsely Veg Iarl Deposit Iydrogen Su	getated Co ts (B15) ulfide Odo Water Tal	oncave Surf or (C1) ble (C2)		Water Stai     Drainage F     Oxidized R     Presence o     Salt Depos     Stunted or     ✓ Geomorphi	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C of Reduced Iron (C4) hits (C5) Stressed Plants (D1) hits (D2)
tland Hydrology Indic mary Indicators (any Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4)	one is suffice	cient)	☐ S ☐ M ☐ H	iparsely Veg Iarl Deposit Iydrogen Su Dry-Season	getated Co ts (B15) ulfide Odo Water Tal	oncave Surf or (C1) ble (C2)		Water Stai □ Drainage F □ Oxidized R □ Presence o □ Salt Depos □ Stunted or ☑ Geomorph: ☑ Shallow Ac	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3)
tland Hydrology Indic mary Indicators (any 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)	one is suffice.	cient)	☐ S ☐ M ☐ H	iparsely Veg Iarl Deposit Iydrogen Su Dry-Season	getated Co ts (B15) ulfide Odo Water Tal	oncave Surf or (C1) ble (C2)		Water Stai  □ Drainage F □ Oxidized R □ Presence o □ Salt Depos □ Stunted or ✔ Geomorphi ✔ Shallow Ac ✔ Microtopog	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3) graphic Relief (D4)
tland Hydrology Indic mary Indicators (any 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)	one is suffice.	cient)	☐ S ☐ M ☐ H	iparsely Veg Iarl Deposit Iydrogen Su Dry-Season	getated Co ts (B15) ulfide Odo Water Tal	oncave Surf or (C1) ble (C2)		Water Stai  □ Drainage F □ Oxidized R □ Presence o □ Salt Depos □ Stunted or ✔ Geomorphi ✔ Shallow Ac ✔ Microtopog	ned Leaves (B9) Patterns (B10) hizospheres along Living Roots (C of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3)
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