WETLAND DETERMINATION DATA FORM - Alaska Region

Project	/Site: Susitna-Watana Hydroe	electric Project		Вс	orough/City:	Denali Bo	rough Sampling Date: 03-Aug-13						
Applica	int/Owner: Alaska Energy Autl	hority					Sampling Point: SW13_T194_02						
	gator(s): SLI, EAC			L	_andform (hills	side, terrac	e, hummocks etc.): Valley bottom						
Local relief (concave, convex, none): flat Slope: % / 0.9 ° Elevation: 812													
	·				· —								
_	ion : Interior Alaska Mountains		Lo	11	33.356138825	3							
Soil Map Unit Name: NWI classification: PSS1B													
	natic/hydrologic conditions on the	· —		•		● No ○	(If no, explain in Remarks.)						
	Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)												
Are V	egetation \square , Soil \square ,	or Hydrology	natura	lly pro	oblematic?	(If nee	ded, explain any answers in Remarks.)						
SUMN	MARY OF FINDINGS - Atta	ach site map sho	wing	sam	pling point	locations	, transects, important features, etc.						
	Hydrophytic Vegetation Present						· · · · · · · · · · · · · · · · · · ·						
		Yes No			Is	the Sam	npled Area						
	Hydric Soil Present?	Yes No C			wit	thin a W	etland? Yes ◉ No ○						
Rema	Wetland Hydrology Present? arks:	Tes © NO C											
VECE	TATION	<u> </u>											
VEGE	TATION -Use scientific na	ames of plants. L	ist all	spec	cies in the p	olot.	Dominance Test worksheet:						
T	- Church		Abso % C		Dominant Species?	Indicator Status	Number of Dominant Species						
	e Stratum Picea glauca		-70 C	1		FACU	That are OBL, FACW, or FAC:5(A)						
2.	1 loca gladoa		-	0		TACO	Total Number of Dominant						
3.			-	0			Species Across All Strata:5(B)						
4.			-	0			Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)						
5.			-	0	П								
0.		Total Cover		1			Prevalence Index worksheet: Total % Cover of: Multiply by:						
San	ling/Shrub Stratum 5		0.5		of Total Cover:	0.2	0.00						
Бар	mig/Sinub Strutum	_	0.5				<u> </u>						
	Vaccinium uliginosum		-	30	V	FAC	FACW Species <u>28</u> x 2 = <u>56</u> FAC Species <u>97.1</u> x 3 = <u>291.3</u>						
2.	Betula glandulosa		-	25		FAC							
	Salix pulchra		-	20		FACW	FACU Species <u>4.1</u> x 4 = <u>16.4</u> UPL Species 0 x 5 = 0						
4.	Empetrum nigrum		-	7		FAC							
5.	Salix barclayi Betula nana		-			FAC FAC	Column Totals: <u>140.2</u> (A) <u>374.7</u> (B)						
6. 7.	Rhododendron tomentosum		-	5		FACW	Prevalence Index = B/A =2.673_						
	Vaccinium vitis-idaea		-	3		FAC	Hydrophytic Vacatation Indicators						
	Picea glauca		-	3		FACU	Hydrophytic Vegetation Indicators: ✓ Dominance Test is > 50%						
	Salix richardsonii		-	3	Ē	FAC	✓ Prevalence Index is ≤3.0						
10.	Cana Honar doorni	Total Cover	: 1	.08			Morphological Adaptations ¹ (Provide supporting data in						
Her	b Stratum_	50% of Total Cover:			of Total Cover:	21.6	Remarks or on a separate sheet)						
1.	Equisetum arvense			10	✓	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)						
2.	Oznaki zakilia			10	✓	OBL	¹ Indicators of hydric soil and wetland hydrology must						
3.	Calamagrostis canadensis		_	7	✓	FAC	be present, unless disturbed or problematic.						
4.	Rubus chamaemorus			3		FACW	Diet cize (radius or length y width)						
5.	l uzula wahlasharaii			1		OBL	Plot size (radius, or length x width) % Cover of Wetland Bryophytes						
6.	Spinulum annotinum			0.1		FACU	(Where applicable)						
7.	Cornus suecica			0.1		FAC	% Bare Ground _5						
8.				0			Total Cover of Bryophytes 80						
9.				0									
10.				0			Hydrophytic						
		Total Cover		1.2	_		Vegetation Present? Yes No						
	5	0% of Total Cover:	15.6	20% (of Total Cover:	6.24	Present? Yes ♥ No ∪						
Rem	arks: 10% lichen cover. total ti					6.24	Present? Tes © NO O						

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SOIL Sampling Point: SW13_T194_02

	on: (Describe to	the depth n	eeded to docun	nent the indicator or co	onfirm the ab		ators)					
Depth (inches)	Color (moist) %			Color (moist) % Type ¹			Loc ²	Texture	Remarks			
0-12	7.5YR	2.5/2	100	Color (Illoist)		Туре	LUC	Fibric Organics	Tremains .			
								Hemic Organics	Paudy homic still a let of intest fibrage ma			
12-22	5YR							- Herric Organics	Barely hemic - still a lot of intact fibrous ma			
				-				-				
Type: C=Con	centration. D	=Depletion	. RM=Reduce	ed Matrix ² Locatio				nnel. M=Matrix				
Hydric Soil Indicators: Indicators for Problematic Hydric Soils. ³												
✓ Histosol or	Histel (A1)			Alaska Color C	hange (TA	1) ⁴		Alaska Gleyed Without Hue 5Y or Redder				
Histic Epip	edon (A2)			Alaska Alpine	swales (TA	TA5) Underlying Layer						
Hydrogen	Sulfide (A4)			Alaska Redox	With 2.5Y H	lue		Other (Explain in Remarks)				
☐ Thick Dark	Surface (A12	2)		_								
Alaska Gle	yed (A13)							nary indicator of wetland h	ydrology,			
Alaska Red				and an appropria	te ianuscaț	e position i	nust be pre	esent				
Alaska Gle	yed Pores (A:	15)		⁴ Give details of o	color change	e in Remark	S					
Restrictive Laye	r (if present)	:										
Type:	. (р. эээ)							Hydric Soil Present	? Yes ⊙ No O			
Depth (inch	es):							nyane son mesene	. 165 5 116 5			
Remarks:	,											
HYDROLO	GY											
Wetland Hydr		ators:						Secondary Indi	cators (two or more are required)			
Primary Indicat			t)					Water Stained Leaves (B9)				
Surface W	ater (A1)			Inundation \	/isible on A	erial Imager	v (B7)					
	☐ Surface Water (A1) ☐ Inundation Visible on Ae ☐ High Water Table (A2) ☐ Sparsely Vegetated Cond											
	✓ Saturation (A3)						(==)		of Reduced Iron (C4)			
☐ Water Mai	. ,			Hydrogen Su	,	(C1)		Salt Deposits (C5)				
	Deposits (B2)		✓ Dry-Season					Stressed Plants (D1)			
Drift Depo		,		Other (Expla					ic Position (D2)			
	or Crust (B4)			outle. (Explo		,			quitard (D3)			
☐ Iron Depo									graphic Relief (D4)			
	oil Cracks (B6)						✓ FAC-neutra				
Field Observa	tions:	-										
Surface Water	Present?	Yes C	No 💿	Depth (inch	es):							
Water Table P	resent?	Yes 🤄	No O	Depth (inch	es): 15		Wetla	nd Hydrology Presen	t? Yes • No O			
Saturation Pre					•			, , , , , , , , , , , , , , , , , , , ,				
(includes capil		Yes 🕓	No O	Depth (inch	es): 1							
Describe Record	ded Data (str	eam gauge	, monitor wel	l, aerial photos, pre	vious inspe	ection) if ava	ilable:					
Remarks:												

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