2012 WETLAND DETERMINATION DATA FORMS

Point ID	Cowardin	Vierick	Sheet
1	UPLAND	IIB2	251
2	PFO4/SS1B	IA1	251
3	UPLAND	IA2	251
5	PSS1C	IIB1	251
7	UPLAND	IB2	251
8	UPLAND	IB3	251
9	UPLAND	IA2	249, 250
10	PEM1C	IIIA3	249, 250
11	PSS1/4B	IA3	249, 250
12	UPLAND	IB2	239, 240
13	PSS1/4B	IIC2	247
14	PFO4B	IA2	AUX
15	PSS4/EM1B	IIA2	247
16	PFO4/SS1B	IA2	244
17	UPLAND	IA3	AUX
18	PEM1B	IIIA3	AUX
19	UPLAND	IIC2	AUX
21	UPLAND	IA2	AUX
26	UPLAND	IA3	175
27	UPLAND	IIB2	175
28	PSS1/EM1B	IIC2	175
29	UPLAND	IA2	168, 169, 170
30	PFO4/SS1C	IA3	168, 169, 170
31	R3UB	W	AUX
32	UPLAND	IA2	70, 71
33	UPLAND	IA3	62
100	UPLAND	IA3	56
101	PEM1B	IIIA3	56
102	UPLAND	IA3	62
103	PSS1C	IA3	62
104	UPLAND	IA2	69
105	UPLAND	IA3	69
106	UPLAND	IA2	106
107	PFO4/SS1B	IA1	106
108	UPLAND	IIB1	213, 214
109	UPLAND	IA2	214
110	PEM1B	IIIA3	1
111	PEM1B	IIIA3	1
112	UPLAND	IIC2	1
113	PSS1B	IIC1	3
114	PSS1B	IIC2	3
115	UPLAND	IIC2	3
116	UPLAND	IA3	3
117	UPLAND	IA3	8
118	PSS1/EM1C	IIB2	8, 9
119	PSS1/EM1B	IIC2	8, 9

Point ID	Cowardin	Vierick	Sheet
120	UPLAND	IIC2	8, 9
121	UPLAND	IA3	15, 16
122	PEM1C	IIIA3	15
123	PSS1/4B	IIC2	15, 16
124	PSS1/EM1B	IIC2	22, 23
125	PSS1B	IIC1	22
126	PEM1B	IIIA3	22
127	UPLAND	IIB1	28
128	UPLAND	IIC2	28
129	UPLAND	IB2	28
130	PEM1C	IIIA3	28
131	PEM1B	IIIA3	28
132	UPLAND	IA2	33
133	PSS1C	IIB1	33
134	PSS1/4B	IA2	AUX
135	UPLAND	IA3	AUX
136	PSS1C	IIB2	AUX
137	UPLAND	IIC2	AUX
138	PEM1C	IIB2	AUX
139	PSS4/EM1B	IIC2	AUX
140	PSS1/EM1B	IIC2	42
141	UPLAND	IIB2	42
142	PEM1C	IIIA3	42
143	UPLAND	IAI	42
144	UPLAND	IA2	36, 37
145	UPLAND	IA3	36, 37
146	PEM1B	IIIA3	36, 37
147	UPLAND	IA2	133
148	R3UB	W	AUX
149	PFO4/SS1B	IA3	133
150	PEM1C	IIIA3	133
151	UPLAND	IA2	101
152	PSS1/EM1C	IA3	101
153	PSS1/EM1C	IIB2	101
154	UPLAND	IIC2	101
155	PSS1/EM1C	IIB2	101
156	PEM1H	IIIA3	101
157	UPLAND	IA2	101
158	UPLAND	IA3	96
159	UPLAND	IA3	96
160	UPLAND	IA3	95, 96
161	PEM1C	IIIA3	205
162	PSS1/EM1B	IIB2	205
163	UPLAND	IB1	205
164	UPLAND	IB1	205
165	UPLAND	IA3	196

Point ID	Cowardin	Vierick	Sheet
166	UPLAND	IA3	196
167	UPLAND	IC3	192
168	PSS3/EM1B	IIC2	192
169	UPLAND	IB2	192
170	PSS1B	IIB2	187, 188
171	PSS1/4B	IIC2	187, 188
172	PSS4/EM1B	IA3	187
173	UPLAND	IIC2	187
174	PEM1H	IIIA3	187, 188
175	PSS1/EM1B	IA3	178
176	UPLAND	IIC2	178
177	PSS1/EM1C	IIC2	178
178	UPLAND	IIIA3	72
179	PEM1C	IIC2	72
180	UPLAND	IIIA3	72
181	PEM1H	IA3	72
182	PSS1/4B	IIB2	76
183	PSS1C	IA3	76
184	PSS4B	IID2	76
185	UPLAND	IIC2	79
186	PSS3H	IIB1	AUX
187	PSS1H	IIB2	AUX
188	PSS1/EM1C	IC3	79
189	PSS4B	IA2	83
190	UPLAND	IB3	83
191	UPLAND	IB3	83
192	UPLAND	IA3	83
193	PSS1/FO4C		AUX
194	PSS1/FO4C	IA3	AUX
195	PEM1B	IIC2	86
196	PSS1C	IIC2	86
197	PSS1C	IIC2	86
198	UPLAND	IIC1	86
199	PSS1B	IIC1	88
200	PSS1/EM1C	IIB2	88
201	PSS1/EM1C	IIB1	88
202	PSS1B	IA3	88

Point ID	Cowardin	Vierick	Sheet
203	PSS1/FO4B	IA3	88
204	UPLAND	IA3	91
205	PFO4/SS1B	IA3	91
206	UPLAND	IIIA3	91
206-2	Photo Point		126
207	PEM1B	IA3	126
208	UPLAND		125, 126
209	PSS1/EM1C	IIB2	125
210	PEM1/SS1B	IIIA3	125
211	UPLAND	IIC2	128
212	PSS1/EM1B	IIC2	128
213	PFO4/SS1B	IA2	128
214	PFO4/SS1B	IA3	117, 118
215	PSS1C	IIC1	117, 118
216	UPLAND	IA3	117, 118
217	PSS1/FO4C	IA3	AUX
218	R3UB	W	AUX
219	UPLAND	IA2	118
220	PSS1C	IIC2	117, 118
221	PEM1C	IIIA3	117, 118
222	PSS1/EM1B	IA3	114
223	PSS1/EM1B	IA3	114
224	UPLAND	IB2	114
225	UPLAND	IB2	114
226	PFO4/SS1B	IA2	114
227	PSS1/FO4C	IA3	AUX

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 1

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): streambank

Local relief (concave, convex, none): concave Slope (%): 2

Subregion: Interior Alaska Lat: 66.79396791 Long: -150.7122623 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No x	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: Sample point taken approximately 10 feet from Prospect Creek.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0
Sapling/Shrub Stratum				
1. salsp.	Salix sp.	35	Yes	FACW
2. ledgro	Ledum groenlandicum	10	No	FACW
3. betneo	Betula neoalaskana	5	No	FACU
4. vaculi	Vaccinium uliginosum	5	No	FAC
5. picmar	Picea mariana	5	No	FACW
6. shecan	Shepherdia canadensis	3	No	FACU
Total Cover:		63		
50% of total cover:		31.5	20% of total cover:	12.6
Herb Stratum				
1. parpal	Parnassia palustris	3	No	FACW
2. chaang	Chamerion angustifolium	40	Yes	FACU
3. equsci	Equisetum scirpoides	40	Yes	FACU
4. equsyl	Equisetum sylvaticum	10	No	FAC
5. calcan	Calamagrostis canadensis	20	No	FAC
6. eriang	Eriophorum angustifolium	5	No	OBL
7. carnor	Carex norvegica	3	No	FACW
8. erivag	Eriophorum vaginatum	3	No	FACW
9.				
10.				
Total Cover:		124		
50% of total cover:		62	20% of total cover:	24.8

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	59	x 2 =	118
FAC species	35	x 3 =	105
FACU species	88	x 4 =	352
UPL species	0	x 5 =	0
Column Totals:	187 (A)		580 (B)

Prevalence Index = B/A = 3.10

Hydrophytic Vegetation Indicators:

No Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No x

Remarks:

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2								organic
2-17	6/10Y gley1	95					clay	homogenous

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- X Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: Rocks

Depth (inches): 17

Hydric Soil Present? Yes X No ___

Remarks:

Gravel and redox features observed throughout the entire profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): >17

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): >17

Wetland Hydrology Present? Yes ___ No X

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 2

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): depression

Local relief (concave, convex, none): concave Slope (%): _____

Subregion: Interior Alaska Lat: 66.79420999 Long: -150.7125799 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** **Yes** x **No** _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	80	Yes	FACW
2. picgla	Picea glauca	3	No	FACU
3. poptre	Populus tremuloides	5	No	FACU
4. betneo	Betula neoalaskana	3	No	FACU
	Total Cover:	91		
	50% of total cover: 45.5	20% of total cover: 18.2		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	25	Yes	FACW
2. alnvir	Alnus viridis	10	No	FAC
3. betneo	Betula neoalaskana	5	No	FACU
4. vaculi	Vaccinium uliginosum	5	No	FAC
5. betnan	Betula nana	25	Yes	FAC
6. ledgro	Ledum groenlandicum	5	No	FACW
	Total Cover:	75		
	50% of total cover: 37.5	20% of total cover: 15		

Herb Stratum				
1. potniv	Potentilla nivea	3	No	UPL
2. petfri	Petasites frigidus	3	No	FACW
3. chaang	Chamerion angustifolium	3	No	FACU
4. carnor	Carex norvegica	20	Yes	FACW
5. eriang	Eriophorum angustifolium	45	Yes	OBL
6.				
7.				
8.				
9.				
10.				
	Total Cover:	74		
	50% of total cover: 37	20% of total cover: 14.8		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	133	x 2 =	266
FAC species	40	x 3 =	120
FACU species	19	x 4 =	76
UPL species	3	x 5 =	15
Column Totals:	240 (A)		522 (B)

Prevalence Index = B/A = 2.18

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** x **No** _____

Remarks:

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2								organics
2-18	5/N gley1	75					clay	
2-18	7.5yr 4/4	25					clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
X Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 18

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
X Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___
Water Table Present? Yes ___ No x Depth (inches): >18
Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): >18

Wetland Hydrology Present? Yes ___ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 3

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): terrace

Local relief (concave, convex, none): level Slope (%): _____

Subregion: Interior Alaska Lat: 66.79505572 Long: -150.7132307 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	55	Yes	FACW
2.				
3.				
4.				
	Total Cover:	55		
	50% of total cover: 27.5	20% of total cover: 11		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	40	No	FACW
2. betnan	Betula nana	60	Yes	FAC
3. salsp.	Salix sp.	5	No	FACW
4. ledgro	Ledum groenlandicum	15	No	FACW
5. vaculi	Vaccinium uliginosum	80	Yes	FAC
6. arcalp	Arctostaphylos alpina	3	No	FAC
	Total Cover:	203		
	50% of total cover: 101.5	20% of total cover: 40.6		

Herb Stratum				
1. carnor	Carex norvegica	5	Yes	FACW
2. chaang	Chamerion angustifolium	3	Yes	FACU
3. potniv	Potentilla nivea	3	Yes	UPL
4. calcan	Calamagrostis canadensis	3	Yes	FAC
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	14		
	50% of total cover: 7	20% of total cover: 2.8		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 71% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	120	x 2 =	240
FAC species	146	x 3 =	438
FACU species	3	x 4 =	12
UPL species	3	x 5 =	15
Column Totals:	272 (A)		705 (B)

Prevalence Index = B/A = 2.59

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 3

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5								organics
5-15	10yr 3/2						gravelly sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Gravel
Depth (inches): 15

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >15
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): >15

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 3-2

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.79622091 Long: -150.7135575 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	75	Yes	FACW
2. picgla	Picea glauca	25	Yes	FACU
3.				
4.				
	Total Cover:	100		
	50% of total cover: 50	20% of total cover: 20		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	10	No	FACW
2. alnvir	Alnus viridis	5	No	FAC
3. betneo	Betula neoalaskana	3	No	FACU
4. betnan	Betula nana	3	No	FAC
5. vaculi	Vaccinium uliginosum	80	Yes	FAC
6. picmar	Picea mariana	25	No	FACW
	Total Cover:	126		
	50% of total cover: 63	20% of total cover: 25.2		

Herb Stratum				
1. potniv	Potentilla nivea	3	No	UPL
2. carnor	Carex norvegica	40	Yes	FACW
3. equpra	Equisetum pratense	3	No	FACW
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	46		
	50% of total cover: 23	20% of total cover: 9.2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	153	x 2 =	306
FAC species	88	x 3 =	264
FACU species	28	x 4 =	112
UPL species	3	x 5 =	15
Column Totals:	272 (A)		697 (B)

Prevalence Index = B/A = 2.56

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 3-2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								organics
6-9	10yr 4/2						sandy clay	
9-24	10yr 4/3						sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>24___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>24___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 4

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: _____ Long: -150.7134179 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes N/A	No N/A	
Wetland Hydrology Present?	Yes N/A	No N/A	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum			Absolute % Cover	Dominant Species?	Indicator Status
1.	betneo	Betula neoalaskana	50	Yes	FACU
2.	popbal	Populus balsamifera	5	No	FACU
3.	picmar	Picea mariana	3	No	FACW
4.					

Total Cover: 58

50% of total cover: 29 20% of total cover: 11.6

Sapling/Shrub Stratum					
1.	salsp.	Salix sp.	50	Yes	FACW
2.	picmar	Picea mariana	5	No	FACW
3.	vaculi	Vaccinium uliginosum	40	Yes	FAC
4.	rubarc	Rubus arcticus	3	No	FAC
5.					
6.					

Total Cover: 98

50% of total cover: 49 20% of total cover: 19.6

Herb Stratum					
1.	equpra	Equisetum pratense	5	Yes	FACW
2.	equarv	Equisetum arvense	3	Yes	FAC
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Total Cover: 8

50% of total cover: 4 20% of total cover: 1.6

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	63	x 2 =	126
FAC species	46	x 3 =	138
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	164 (A)		484 (B)

Prevalence Index = B/A = 2.95

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 4

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 6

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: _____ Long: _____ Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Sampling location is on the outside of the Jim River curve. Black spruce *(Picea mariana)* regeneration was observed.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. betneo	Betula neoalaskana	10	Yes	FACU
2. picmar	Picea mariana	5	Yes	FACW
3.				
4.				
	Total Cover:	15		
	50% of total cover:	7.5	20% of total cover:	3

Sapling/Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. alnvir	Alnus viridis	5	No	FAC
2. salsp.	Salix sp.	15	No	FACW
3. betnan	Betula nana	85	Yes	FAC
4. rosaci	Rosa acicularis	15	No	FACU
5. vaculi	Vaccinium uliginosum	15	No	FAC
6. ledgro	Ledum groenlandicum	5	No	FACW
	Total Cover:	140		
	50% of total cover:	70	20% of total cover:	28

Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. calcan	Calamagrostis canadensis	75	Yes	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	75		
	50% of total cover:	37.5	20% of total cover:	15

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	180	x 3 =	540
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	230 (A)		690 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 6

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5								organics
5-22	10yr 3/3						sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>22___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>22___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 7

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.79318205 Long: -150.73146 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: East bank of the Jim River.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picgla	Picea glauca	10	Yes	FACU
2. picmar	Picea mariana	5	No	FACW
3. betneo	Betula neoalaskana	25	Yes	FACU
4.				
Total Cover:		40		
50% of total cover:		20	20% of total cover:	8

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	3	No	FACW
2. betneo	Betula neoalaskana	3	No	FACU
3. rosaci	Rosa acicularis	5	No	FACU
4. vaculi	Vaccinium uliginosum	10	Yes	FAC
5. ribtri	Ribes triste	3	No	FAC
6. alnvir	Alnus viridis	5	No	FAC
Total Cover:		29		
50% of total cover:		14.5	20% of total cover:	5.8

Herb Stratum				
1. equpra	Equisetum pratense	5	Yes	FACW
2. calcan	Calamagrostis canadensis	5	Yes	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		10		
50% of total cover:		5	20% of total cover:	2

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	13	x 2 =	26
FAC species	23	x 3 =	69
FACU species	43	x 4 =	172
UPL species	0	x 5 =	0
Column Totals:	79 (A)		267 (B)

Prevalence Index = B/A = 3.38

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 7

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5								organics
5-12	10yr 3/2							glistening

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 12

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >12
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): >12

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 8

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.79337963 Long: -150.7332416 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: West banks of the Jim River.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. popbal	Populus balsamifera	10	Yes	FACU
2. picmar	Picea mariana	3	Yes	FACW
3.				
4.				
	Total Cover:	13		
	50% of total cover: 6.5	20% of total cover: 2.6		

Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	3	No	FAC
2. salsp.	Salix sp.	45	Yes	FACW
3. rosaci	Rosa acicularis	15	Yes	FACU
4. rubarc	Rubus arcticus	5	No	FAC
5. picmar	Picea mariana	3	No	FACW
6.				
	Total Cover:	71		
	50% of total cover: 35.5	20% of total cover: 14.2		

Herb Stratum				
1. calcan	Calamagrostis canadensis	10	Yes	FAC
2. ranlap	Ranunculus lapponicus	5	Yes	OBL
3. anepar	Anemone parviflora	3	No	FACU
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	18		
	50% of total cover: 9	20% of total cover: 3.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	51	x 2 =	102
FAC species	18	x 3 =	54
FACU species	28	x 4 =	112
UPL species	0	x 5 =	0
Column Totals:	102 (A)		273 (B)

Prevalence Index = B/A = 2.68

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 8

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2								organic
2-14	5yr 3/3						sand	
14-20	5yr 3/3						gravel/sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Gravel
Depth (inches): 20

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >20
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): >20

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 9

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.79857228 Long: -150.7485224 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: *Picea mariana* is present as both burned and unburned trees. Only the unburned tree are represented on the data sheet.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	30	Yes	FACW
2.				
3.				
4.				
	Total Cover:	30		
	50% of total cover:	15	20% of total cover:	6

Sapling/Shrub Stratum				
1. betnan	Betula nana	10	Yes	FAC
2. salsp.	Salix sp.	5	No	FACW
3. ledgro	Ledum groenlandicum	30	Yes	FACW
4. vacvit	Vaccinium vitis-idaea	3	No	FAC
5.				
6.				
	Total Cover:	48		
	50% of total cover:	24	20% of total cover:	9.6

Herb Stratum				
1. chaang	Chamerion angustifolium	5	Yes	FACU
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	5		
	50% of total cover:	2.5	20% of total cover:	1

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	65	x 2 =	130
FAC species	13	x 3 =	39
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	83 (A)		189 (B)

Prevalence Index = B/A = 2.28

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 9

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2								organic
2-14	10yr 3/3						fine sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Gravel
Depth (inches): 14

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >14
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): >14

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 10

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.79638637 Long: -150.7477423 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____
Hydric Soil Present?	Yes x	No _____
Wetland Hydrology Present?	Yes x	No _____

Is the Sampled Area within a Wetland? Yes x No _____

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0

Sapling/Shrub Stratum				
1. shecan	Shepherdia canadensis	3	Yes	FACU
2.				
3.				
4.				
5.				
6.				
Total Cover:		3		
50% of total cover:		1.5	20% of total cover:	0.6

Herb Stratum				
1.				
2. carvir	Carex viridula	20	Yes	OBL
3. equsci	Equisetum scirpoides	20	Yes	FACU
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		40		
50% of total cover:		20	20% of total cover:	8

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	23	x 4 =	92
UPL species	0	x 5 =	0
Column Totals:	43 (A)		112 (B)

Prevalence Index = B/A = 2.60

Hydrophytic Vegetation Indicators:

No Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 10

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks: No sample pit dug. Standing water is present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X ____ No _____ Depth (inches): _____

Water Table Present? Yes X ____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X ____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X ____ No _____

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 11

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.79554958 Long: -150.7475382 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	10	Yes	FACW
2.				
3.				
4.				
	Total Cover:	10		
	50% of total cover: 5	20% of total cover: 2		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	Yes	FACW
2. betnan	Betula nana	5	No	FAC
3. ledgro	Ledum groenlandicum	3	No	FACW
4. rubcha	Rubus chamaemorus	20	Yes	FACW
5. vacvit	Vaccinium vitis-idaea	5	No	FAC
6. andpol	Andromeda polifolia	3	No	OBL
	Total Cover:	46		
	50% of total cover: 23	20% of total cover: 9.2		

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0	20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	3	x 1 =	3
FACW species	43	x 2 =	86
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	56 (A)		119 (B)

Prevalence Index = B/A = 2.13

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 11

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12								saturated organics

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 12

Hydric Soil Present? Yes X ____ No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ____ No ____ Depth (inches): ____
Water Table Present? Yes ____ No ____ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes X ____ No ____ Depth (inches): ____

Wetland Hydrology Present? Yes X ____ No ____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 12

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.84693364 Long: -151.0963297 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No x	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: West bank of the south fork of the Koyukuk River.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picgla	Picea glauca	25	Yes	FACU
2. popbal	Populus balsamifera	30	Yes	FACU
3. betneo	Betula neoalaskana	10	No	FACU
4.				
Total Cover:		65		
50% of total cover:		32.5	20% of total cover:	13

Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	20	Yes	FAC
2. picgla	Picea glauca	10	No	FACU
3. viredu	Viburnum edule	10	No	FACU
4. salsp.	Salix sp.	20	Yes	FACW
5. rosaci	Rosa acicularis	10	No	FACU
6.				
Total Cover:		70		
50% of total cover:		35	20% of total cover:	14

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	20	x 3 =	60
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	135 (A)		480 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

No Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No x

Remarks:

SOIL

Sampling Point: 12

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3								organic
3-17	5y 4/2						sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>17___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>17___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 13

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.79148374 Long: -150.8489465 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
	Total Cover:	5		
	50% of total cover: 2.5	20% of total cover: 1		

Sapling/Shrub Stratum				
1. betnan	Betula nana	10	Yes	FAC
2. ledgro	Ledum groenlandicum	10	Yes	FACW
3. vaculi	Vaccinium uliginosum	5	No	FAC
4. rubcha	Rubus chamaemorus	3	No	FACW
5. vacvit	Vaccinium vitis-idaea	10	Yes	FAC
6. salsp.	Salix sp.	5	No	FACW
	Total Cover:	43		
	50% of total cover: 21.5	20% of total cover: 8.6		

Herb Stratum				
1. erivag	Eriophorum vaginatum	10	Yes	FACW
2. carnor	Carex norvegica	5	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	15		
	50% of total cover: 7.5	20% of total cover: 3		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 80

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	38	x 2 =	76
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	63 (A)		151 (B)

Prevalence Index = B/A = 2.40

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: sphagnum (80%)

SOIL

Sampling Point: 13

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								saturated organics

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 6

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___
Water Table Present? Yes ___ No x Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes x No ___ Depth (inches): 6

Wetland Hydrology Present? Yes x No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 14

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): ____

Local relief (concave, convex, none): ____ Slope (%): ____

Subregion: Interior Alaska Lat: 66.79227799 Long: -150.8513149 Datum: NAD83

Soil Map Unit Name: ____ NWI classification: ____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	50	Yes	FACW
2.				
3.				
4.				
	Total Cover:	50		
	50% of total cover:	25	20% of total cover:	10

Sapling/Shrub Stratum				
1. picmar	Picea mariana	40	Yes	FACW
2. ledgro	Ledum groenlandicum	5	No	FACW
3. vacvit	Vaccinium vitis-idaea	3	No	FAC
4. vaculi	Vaccinium uliginosum	5	No	FAC
5. betnan	Betula nana	3	No	FAC
6.				
	Total Cover:	56		
	50% of total cover:	28	20% of total cover:	11.2

Herb Stratum				
1. Carnor	Carex norvegica	20	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	20		
	50% of total cover:	10	20% of total cover:	4

Plot size (radius, or length x width) 15 foot radius % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes 90
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	115	x 2 =	230
FAC species	11	x 3 =	33
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	126 (A)		263 (B)

Prevalence Index = B/A = 2.09

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
NI species: sphagnum (90%), lichen (75)

SOIL

Sampling Point: 14

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3								organics
3-9	10yr 2/2						sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 9

Hydric Soil Present? Yes _____ No ___x_

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No ___x_ Depth (inches): _____
Water Table Present? Yes _____ No ___x_ Depth (inches): ___>9___
Saturation Present? (includes capillary fringe) Yes _____ No ___x_ Depth (inches): ___>9___

Wetland Hydrology Present? Yes _____ No ___x_

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 15

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.79306055 Long: -150.8502283 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
	Total Cover:	5		
	50% of total cover: 2.5	20% of total cover: 1		

Sapling/Shrub Stratum				
1. ledgro	Ledum groenlandicum	5	Yes	FACW
2. betnan	Betula nana	3	Yes	FAC
3. vaculi	Vaccinium uliginosum	3	Yes	FAC
4. empnig	Empetrum nigrum	3	Yes	FAC
5.				
6.				
	Total Cover:	14		
	50% of total cover: 7	20% of total cover: 2.8		

Herb Stratum				
1. erivag	Eriophorum vaginatum	40	Yes	FACW
2. carnor	Carex norvegica	30	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	70		
	50% of total cover: 35	20% of total cover: 14		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	9	x 3 =	27
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	89 (A)		187 (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 15

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-11								saturated organics

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 11

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes X No ___ Depth (inches): 9
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 16

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): ____

Local relief (concave, convex, none): ____ Slope (%): ____

Subregion: Interior Alaska Lat: 66.78835562 Long: -150.9556318 Datum: NAD83

Soil Map Unit Name: ____ NWI classification: ____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	35	Yes	FACW
2.				
3.				
4.				
	Total Cover:	35		
	50% of total cover: 17.5	20% of total cover: 7		

Sapling/Shrub Stratum				
1. vaculi	Vaccinium uliginosum	10	No	FAC
2. ledgro	Ledum groenlandicum	15	No	FACW
3. vacvit	Vaccinium vitis-idaea	3	No	FAC
4. rubcha	Rubus chamaemorus	15	No	FACW
5. betnan	Betula nana	5	No	FAC
6. picmar	Picea mariana	30	Yes	FACW
	Total Cover:	78		
	50% of total cover: 39	20% of total cover: 15.6		

Herb Stratum				
1. erivag	Eriophorum vaginatum	15	Yes	FACW
2. carnor	Carex norvegica	5	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	20		
	50% of total cover: 10	20% of total cover: 4		

Plot size (radius, or length x width) 15 foot radius % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes 90
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 133% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	115	x 2 =	230
FAC species	18	x 3 =	54
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	133 (A)		284 (B)

Prevalence Index = B/A = 2.14

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
NI species: sphagnum (90%)

SOIL

Sampling Point: 16

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9								saturated organics

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 9

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): >9
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 17

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): ____

Local relief (concave, convex, none): ____ Slope (%): ____

Subregion: Interior Alaska Lat: 66.86102474 Long: -151.1855879 Datum: NAD83

Soil Map Unit Name: ____ NWI classification: ____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No x
Hydric Soil Present?	Yes N/A	No N/A	
Wetland Hydrology Present?	Yes N/A	No N/A	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0

Sapling/Shrub Stratum				
1. betnan	Betula nana	5	Yes	FAC
2. vaculi	Vaccinium uliginosum	5	Yes	FAC
3.				
4.				
5.				
6.				
Total Cover:		10		
50% of total cover:		5	20% of total cover:	2

Herb Stratum				
1. compal	Comarum palustre	40	Yes	OBL
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		40		
50% of total cover:		20	20% of total cover:	8

Plot size (radius, or length x width) 15 foot radius % Bare Ground ____

% Cover of Wetland Bryophytes ____ (Where applicable) Total Cover of Bryophytes 75

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	50 (A)		70 (B)

Prevalence Index = B/A = 1.40

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No ____

Remarks:

NI species: sphagnum (75%). Unknown rush species (20%)

SOIL

Sampling Point: 17

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 18

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.86240348 Long: -151.2164028 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____
Hydric Soil Present?	Yes X	No _____
Wetland Hydrology Present?	Yes X	No _____

Is the Sampled Area within a Wetland? Yes X No _____

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	3	Yes	FACW
2.				
3.				
4.				
Total Cover:		3		
50% of total cover:		1.5	20% of total cover:	0.6

Sapling/Shrub Stratum				
1. picmar	Picea mariana	3	No	FACW
2. betnan	Betula nana	5	No	FAC
3. ledgro	Ledum groenlandicum	10	Yes	FACW
4. vacvit	Vaccinium vitis-idaea	3	No	FAC
5. vaculi	Vaccinium uliginosum	3	No	FAC
6. rubcha	Rubus chamaemorus	5	No	FACW
Total Cover:		29		
50% of total cover:		14.5	20% of total cover:	5.8

Herb Stratum				
1. erivag	Eriophorum vaginatum	60	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		60		
50% of total cover:		30	20% of total cover:	12

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 90

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	81	x 2 =	162
FAC species	11	x 3 =	33
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	92 (A)		195 (B)

Prevalence Index = B/A = 2.12

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

NI species: sphagnum (90)

SOIL

Sampling Point: 18

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10								saturated organics

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 10

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___
Water Table Present? Yes x No ___ Depth (inches): 9
Saturation Present? (includes capillary fringe) Yes x No ___ Depth (inches): 0-9

Wetland Hydrology Present? Yes x No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 19

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.86512775 Long: -151.2162713 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
	Total Cover:	5		
	50% of total cover:	2.5	20% of total cover:	1

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	20	Yes	FACW
2. vaculi	Vaccinium uliginosum	20	Yes	FAC
3. ledgro	Ledum groenlandicum	10	No	FACW
4. betnan	Betula nana	15	Yes	FAC
5. vacvit	Vaccinium vitis-idaea	3	No	FAC
6. popbal	Populus balsamifera	5	No	FACU
	Total Cover:	73		
	50% of total cover:	36.5	20% of total cover:	14.6

Herb Stratum				
1. petfri	Petasites frigidus	3	Yes	FACW
2. carnor	Carex norvegica	3	Yes	FACW
3. equpra	Equisetum pratense	5	Yes	FACW
4. calcan	Calamagrostis canadensis	3	Yes	FAC
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	14		
	50% of total cover:	7	20% of total cover:	2.8

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	46	x 2 =	92
FAC species	41	x 3 =	123
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	92 (A)		235 (B)

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 19

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5								organics
5-11	10yr 4/1						clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 11

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >11
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): >11

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/13/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 21

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.90567591 Long: -151.6788826 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: Southeast Koyukuk River.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	60	Yes	FACW
2.				
3.				
4.				
	Total Cover:	60		
	50% of total cover: 30	20% of total cover: 12		

Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	20	Yes	FAC
2. salsp.	Salix sp.	5	No	FACW
3. rosaci	Rosa acicularis	10	Yes	FACU
4. popbal	Populus balsamifera	3	No	FACU
5. viredu	Viburnum edule	5	No	FACU
6. vacvit	Vaccinium vitis-idaea	3	No	FAC
	Total Cover:	46		
	50% of total cover: 23	20% of total cover: 9.2		

Herb Stratum				
1. equary	Equisetum arvense	3	Yes	FAC
2. calcan	Calamagrostis canadensis	3	Yes	FAC
3. vioepi	Viola epipsila	3	Yes	FACW
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	9		
	50% of total cover: 4.5	20% of total cover: 1.8		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 80
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	68	x 2 =	136
FAC species	29	x 3 =	87
FACU species	18	x 4 =	72
UPL species	0	x 5 =	0
Column Totals:	115 (A)		295 (B)

Prevalence Index = B/A = 2.57

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum (80%)

SOIL

Sampling Point: 21

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								organic
6-13	10yr 3/2						sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>13___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>13___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/15/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 26

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.06856002 Long: -153.1580878 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: West bank of the Malamute Fork of the Alatna River.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	10	Yes	FACW
2.				
3.				
4.				
	Total Cover:	10		
	50% of total cover:	5	20% of total cover:	2

Sapling/Shrub Stratum				
1. andpol	Andromeda polifolia	5	No	OBL
2. picmar	Picea mariana	15	Yes	FACW
3. dasfru	Dasiphora fruticosa	5	No	FAC
4. salsp.	Salix sp.	20	Yes	FACW
5. betnan	Betula nana	5	No	FAC
6. arcalp	Arctostaphylos alpina	5	No	FAC
	Total Cover:	55		
	50% of total cover:	27.5	20% of total cover:	11

Herb Stratum				
1. calcan	Calamagrostis canadensis	5	Yes	FAC
2. zigele	Zigadenus elegans	5	Yes	FACU
3. asteuc	Astragalus eucosmus	5	Yes	UPL
4. anepar	Anemone parviflora	5	Yes	FACU
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	20		
	50% of total cover:	10	20% of total cover:	4

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	45	x 2 =	90
FAC species	20	x 3 =	60
FACU species	10	x 4 =	40
UPL species	5	x 5 =	25
Column Totals:	85 (A)		220 (B)

Prevalence Index = B/A = 2.59

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 26

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5								organic
5-20	7.5yr 4/2						fine silty sandy loam	
20-25								river rock

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: River rock
Depth (inches): 25

Hydric Soil Present? Yes _____ No ___x_

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ___x_ Depth (inches): _____
Water Table Present? Yes _____ No ___x_ Depth (inches): >25
Saturation Present? (includes capillary fringe) Yes _____ No ___x_ Depth (inches): >25

Wetland Hydrology Present? Yes _____ No ___x_

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/15/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 27

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.06719581 Long: -153.168966 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: East bank of the Malamute Fork of the Alatna River.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picgla	Picea glauca	5	Yes	FACU
2.				
3.				
4.				
	Total Cover:	5		
	50% of total cover: 2.5	20% of total cover: 1		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	20	Yes	FACW
2. poptre	Populus tremuloides	5	No	FACU
3. betneo	Betula neoalaskana	10	No	FACU
4. vaculi	Vaccinium uliginosum	20	Yes	FAC
5. betnan	Betula nana	15	Yes	FAC
6. rosaci	Rosa acicularis	3	No	FACU
	Total Cover:	73		
	50% of total cover: 36.5	20% of total cover: 14.6		

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0	20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	35	x 3 =	105
FACU species	23	x 4 =	92
UPL species	0	x 5 =	0
Column Totals:	78 (A)		237 (B)

Prevalence Index = B/A = 3.04

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 27

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								organic
6-12	10yr 4/1						clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 12

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
x Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >12
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): >12

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/15/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 28

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.06682822 Long: -153.1684349 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Tundra above the west bank on thesouth side of the Malamute Fork of the Alatna River.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0
Sapling/Shrub Stratum				
1. picmar	Picea mariana	3	No	FACW
2. picgla	Picea glauca	3	No	FACU
3. betnan	Betula nana	5	No	FAC
4. vaculi	Vaccinium uliginosum	10	Yes	FAC
5. ledgro	Ledum groenlandicum	5	No	FACW
6. rubcha	Rubus chamaemorus	5	No	FACW
Total Cover:		31		
50% of total cover:		15.5	20% of total cover:	6.2
Herb Stratum				
1. erivag	Eriophorum vaginatum	40	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		40		
50% of total cover:		20	20% of total cover:	8

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 80

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	53	x 2 =	106
FAC species	15	x 3 =	45
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column Totals:	71 (A)		163 (B)

Prevalence Index = B/A = 2.30

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: NI species: sphagnum (80%)

SOIL

Sampling Point: 28

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-9								organic
9-12								frozen organics

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 12

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___
Water Table Present? Yes ___ No x Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes x No ___ Depth (inches): 9

Wetland Hydrology Present? Yes x No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/15/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 29

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.07577955 Long: -153.3293973 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: West bank Alatna River.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picgla	Picea glauca	20	Yes	FACU
2. picmar	Picea mariana	5	Yes	FACW
3.				
4.				
	Total Cover:	25		
	50% of total cover: 12.5	20% of total cover: 5		
Sapling/Shrub Stratum				
1. salsp.	Salix sp.	30	Yes	FACW
2. alnvir	Alnus viridis	3	No	FAC
3. poptre	Populus tremuloides	3	No	FACU
4. ledgro	Ledum groenlandicum	5	No	FACW
5. vaculi	Vaccinium uliginosum	3	No	FAC
6. juncom	Juniperus communis	3	No	UPL
	Total Cover:	47		
	50% of total cover: 23.5	20% of total cover: 9.4		
Herb Stratum				
1. asteuc	Astragalus eucosmus	5	Yes	UPL
2. zigele	Zigadenus elegans	3	No	FACU
3. elysp.	Elymus sp.	10	Yes	FAC
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	18		
	50% of total cover: 9	20% of total cover: 3.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	16	x 3 =	48
FACU species	26	x 4 =	104
UPL species	8	x 5 =	40
Column Totals:	90 (A)		272 (B)

Prevalence Index = B/A = 3.02

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 29

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4								organic
4-23	10yr 3/2						sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>23___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>23___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Yukon-Koyukuk Sampling Date: 6/15/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 30

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.07456117 Long: "-153.3282207 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: East bank of the Alatna River.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	10	Yes	FACW
2.				
3.				
4.				
	Total Cover:	10		
	50% of total cover: 5	20% of total cover: 2		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	15	Yes	FACW
2. alnvir	Alnus viridis	5	No	FAC
3. betnan	Betula nana	10	Yes	FAC
4. vaculi	Vaccinium uliginosum	10	Yes	FAC
5. popbal	Populus balsamifera	3	No	FACU
6. ledgro	Ledum groenlandicum	5	No	FACW
	Total Cover:	48		
	50% of total cover: 24	20% of total cover: 9.6		

Herb Stratum				
1. equpra	Equisetum pratense	3	Yes	FACW
2. equarv	Equisetum arvense	3	Yes	FAC
3. poapal	Poa palustris	3	Yes	FAC
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	9		
	50% of total cover: 4.5	20% of total cover: 1.8		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 95

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	33	x 2 =	66
FAC species	31	x 3 =	93
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column Totals:	67 (A)		171 (B)

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum (95%)

SOIL

Sampling Point: 30

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-1								organic
1-18	10yr 3/2						sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>18___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>18___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 6/15/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 31

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.03625895900 Long: -154.8355895 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: East bank Reed River.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	3	No	FACW
2. picgla	Picea glauca	15	Yes	FACU
3.				
4.				
	Total Cover:	18		
	50% of total cover: 9	20% of total cover: 3.6		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	40	Yes	FACW
2. spiste	Spiraea stevenii	20	Yes	FAC
3. vaculi	Vaccinium uliginosum	3	No	FAC
4. poptre	Populus tremuloides	3	No	FACU
5. arcalp	Arctostaphylos alpina	3	No	FAC
6. empnig	Empetrum nigrum	3	No	FAC
	Total Cover:	72		
	50% of total cover: 36	20% of total cover: 14.4		

Herb Stratum				
1. equary	Equisetum arvense	3	No	FAC
2. asteuc	Astragalus eucosmus	3	No	UPL
3. chaang	Chamerion angustifolium	3	No	FACU
4. merpan	Mertensia paniculata	3	No	FACU
5. calcan	Calamagrostis canadensis	5	Yes	FAC
6.				
7.				
8.				
9.				
10.				
	Total Cover:	17		
	50% of total cover: 8.5	20% of total cover: 3.4		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	43	x 2 =	86
FAC species	37	x 3 =	111
FACU species	24	x 4 =	96
UPL species	3	x 5 =	15
Column Totals:	107 (A)		308 (B)

Prevalence Index = B/A = 2.88

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 31

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2								organics
2-24	7.5yr 3/2						fine sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>24___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>24___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 6/15/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 32

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.03379000580 Long: -154.8362991 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: West bank Reed River

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picgla	Picea glauca	25	Yes	FACU
2.				
3.				
4.				
	Total Cover:	25		
	50% of total cover: 12.5	20% of total cover: 5		

Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	3	No	FAC
2. salsp.	Salix sp.	40	Yes	FACW
3. picgla	Picea glauca	3	No	FACU
4. rosaci	Rosa acicularis	3	No	FACU
5. spiste	Spiraea stevenii	8	No	FAC
6. vaculi	Vaccinium uliginosum	5	No	FAC
	Total Cover:	62		
	50% of total cover: 31	20% of total cover: 12.4		

Herb Stratum				
1. equary	Equisetum arvense	3	No	FAC
2. chaang	Chamerion angustifolium	3	No	FACU
3. salcan		25	Yes	
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	31		
	50% of total cover: 15.5	20% of total cover: 6.2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	19	x 3 =	57
FACU species	34	x 4 =	136
UPL species	0	x 5 =	0
Column Totals:	93 (A)		273 (B)

Prevalence Index = B/A = 2.94

Hydrophytic Vegetation Indicators:

No Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 32

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3								organics
3-22	7.5yr 4/1	75					fine sandy loam	
	7.5yr 4/4	25						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 22

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____
Water Table Present? Yes _____ No ___x___ Depth (inches): >22
Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): >22

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 6/15/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 33

Investigator(s): EG, JC, HL Landform (hillside, terrace, hummocks, etc.): ____

Local relief (concave, convex, none): ____ Slope (%): ____

Subregion: Interior Alaska Lat: 67.02148631000 Long: -155.1511347 Datum: NAD83

Soil Map Unit Name: ____ NWI classification: ____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Northeast bank of the Beaver River.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picgla	Picea glauca	20	Yes	FACU
2. poptre	Populus tremuloides	3	No	FACU
3.				
4.				
	Total Cover:	23		
	50% of total cover: 11.5	20% of total cover: 4.6		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	30	Yes	FACW
2. spiste	Spiraea stevenii	20	Yes	FAC
3. picgla	Picea glauca	5	No	FACU
4. empnig	Empetrum nigrum	3	No	FAC
5. rosaci	Rosa acicularis	3	No	FACU
6. shecan	Shepherdia canadensis	3	No	FACU
	Total Cover:	64		
	50% of total cover: 32	20% of total cover: 12.8		

Herb Stratum				
1. calcan	Calamagrostis canadensis	3	Yes	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	3		
	50% of total cover: 1.5	20% of total cover: 0.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	26	x 3 =	78
FACU species	34	x 4 =	136
UPL species	0	x 5 =	0
Column Totals:	90 (A)		274 (B)

Prevalence Index = B/A = 3.04

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: 33

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								organic
6-16	10yr 3/2						sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 16

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >16
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): >16

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/27/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 100

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): 3

Subregion: Interior Alaska Lat: 67.01438813 Long: -155.3528593 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No x	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Abundant burned Picea mariana approximately 20/30% on hillside with Picea mariana regeneration.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2.				
3.				
4.				
Total Cover:		15		
50% of total cover: 7.5		20% of total cover: 3		

Sapling/Shrub Stratum				
1. betneo	Betula neoalaskana	50	Yes	FACU
2. rubarc	Rubus arcticus	5	No	FAC
3. ledgro	Ledum groenlandicum	3	No	FACW
4. poptre	Populus tremuloides	3	No	FACU
5. picmar	Picea mariana	3	No	FACW
6. vaculi	Vaccinium uliginosum	3	No	FAC
Total Cover:		67		
50% of total cover: 33.5		20% of total cover: 13.4		

Herb Stratum				
1. chaang	Chamerion angustifolium	25	Yes	FACU
2. corsue	Cornus suecica	5	No	FAC
3. carnor	Carex norvegica	3	No	FACW
4. corsem	Corydalis sempervirens	3	No	UPL
5. carcap	Carex capillaris	10	No	FACW
6. spiste	Spiraea stevenii	3	No	FAC
7. vacvit	Vaccinium vitis-idaea	5	No	FAC
8. arcalp	Arctostaphylos alpina	3	No	FAC
9.				
10.				
Total Cover:		57		
50% of total cover: 28.5		20% of total cover: 11.4		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	34	x 2 =	68
FAC species	24	x 3 =	72
FACU species	78	x 4 =	312
UPL species	3	x 5 =	15
Column Totals:	139 (A)		467 (B)

Prevalence Index = B/A = 3.36

Hydrophytic Vegetation Indicators:

No Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No x

Remarks:

SOIL

Sampling Point: 100

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10 YR 2/1						Fine organic	surface
3 - 21	10 YR 3/4						Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

No restrictive layer observed. No redox present. Soil dry.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/27/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 101

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): 3

Subregion: Interior Alaska Lat: 67.01132857 Long: -155.3453844 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks: Pockets of standing water with continuous sphagnum

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		

Sapling/Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. andpol	Andromeda polifolia	3	Yes	OBL
2. vaculi	Vaccinium uliginosum	3	Yes	FAC
3.				
4.				
5.				
6.				
Total Cover:		6		
50% of total cover: 3		20% of total cover: 1.2		

Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. equflu	Equisetum fluviatile	3	No	OBL
2. erivag	Eriophorum vaginatum	85	Yes	FACW
3. compal	Comarum palustre	5	No	OBL
4. drorot	Drosera rotundifolia	1	No	OBL
5. spirom	Spiranthes romanzoffiana	1	No	OBL
6.				
7.				
8.				
9.				
10.				
Total Cover:		95		
50% of total cover: 47.5		20% of total cover: 19		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 95
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	13	x 2 =	13
FAC species	85	x 3 =	170
FACU species	3	x 4 =	9
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	101		192

Prevalence Index = B/A = 1.90

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: Sphagnum species 95%

SOIL

Sampling Point: 101

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 12							Sphagnum/ peat	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Thick layers of organic material observed at sample point

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ 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)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 2
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/27/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 102

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): 3

Subregion: Interior Alaska Lat: 67.0182788 Long: -155.1541065 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: Level bluff on ridgeline above Beaver Creek. Sparse spruce and aspen saplings.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2.				
3.				
4.				
Total Cover:		15		
50% of total cover: 7.5		20% of total cover: 3		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	5	No	FACW
2. poptre	Populus tremuloides	10	Yes	FACU
3. betnan	Betula nana	15	Yes	FAC
4. ledgro	Ledum groenlandicum	5	No	FACW
5. vaculi	Vaccinium uliginosum	15	Yes	FAC
6.				
Total Cover:		50		
50% of total cover: 25		20% of total cover: 10		

Herb Stratum				
1. vacvit	Vaccinium vitis-idaea	3	Yes	FAC
2. chaang	Chamerion angustifolium	5	Yes	FACU
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		8		
50% of total cover: 4		20% of total cover: 1.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 70

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	25	x 3 =	50
FACU species	33	x 4 =	99
UPL species	15	x 5 =	60
Column Totals:	0	(A)	0
	73		209

Prevalence Index = B/A = 2.86

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: Lichen species 70%.

SOIL

Sampling Point: 102

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Organic	Substrate
3 - 18	10 YR 4/6	80	10 YR 3/2	20			F. sandy loam	Loose

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): >18
Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): >18

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/27/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 103

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): 3

Subregion: Interior Alaska Lat: 67.01983128 Long: -155.1557266 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	20	Yes	FACW
2.				
3.				
4.				
	Total Cover:	20		
	50% of total cover: 10		20% of total cover: 4	

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	60	Yes	FACW
2. betnan	Betula nana	15	No	FAC
3. vaculi	Vaccinium uliginosum	55	Yes	FAC
4. picmar	Picea mariana	5	No	FACW
5. rubarc	Rubus arcticus	5	No	FAC
6.				
	Total Cover:	140		
	50% of total cover: 70		20% of total cover: 28	

Herb Stratum				
1. carcap	Carex capillaris	15	Yes	FACW
2. carnor	Carex norvegica	5	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	20		
	50% of total cover: 10		20% of total cover: 4	

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	105	x 3 =	210
FACU species	75	x 4 =	225
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	180		435

Prevalence Index = B/A = 2.42

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 103

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Organics	
3 - 22	10 YR 2/1						Sandy Clay	With Mica

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
X Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes X No ____ Depth (inches): 20

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 18

Wetland Hydrology Present? Yes X No ____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/27/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 104

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): 3

Subregion: Interior Alaska Lat: 67.03697583 Long: -155.8524344 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum			Absolute % Cover	Dominant Species?	Indicator Status
1.	picmar	Picea mariana	35	Yes	FACW
2.	poptre	Populus tremuloides	5	No	FACU
3.					
4.					
		Total Cover:	40		
		50% of total cover: 20		20% of total cover: 8	

Sapling/Shrub Stratum					
1.	picmar	Picea mariana	10	Yes	FACW
2.	poptre	Populus tremuloides	5	No	FACU
3.	betnan	Betula nana	15	Yes	FAC
4.	ledgro	Ledum groenlandicum	5	No	FACW
5.	vacvit	Vaccinium vitis-idaea	10	Yes	FAC
6.	vaculi	Vaccinium uliginosum	5	No	FAC
		Total Cover:	50		
		50% of total cover: 25		20% of total cover: 10	

Herb Stratum					
1.	lycobs	Lycopodium obscurum	10	Yes	FACU
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
		Total Cover:	10		
		50% of total cover: 5		20% of total cover: 2	

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 35%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	50	x 3 =	100
FACU species	30	x 4 =	90
UPL species	20	x 5 =	80
Column Totals:	0	(A)	0
	100		270

Prevalence Index = B/A = 2.70

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Fairly continuous cover of lichen. Lichen species 50% and Shagnum species 85%.

SOIL

Sampling Point: 104

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10 YR 2/1						Organics	
3 - 6	10 YR 4/1						Granular Sand	
6 - 18	10 YR 5/4						Granular Sand Mixed with Cobbles	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/27/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 105

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): 3

Subregion: Interior Alaska Lat: 67.03497904 Long: -154.8552282 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
5 % of Picea mariana tree stratum burned, with 10 % unburned.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2.				
3.				
4.				
Total Cover:		15		
50% of total cover: 7.5		20% of total cover: 3		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	5	No	FACW
2. betnan	Betula nana	15	Yes	FAC
3. poptre	Populus tremuloides	15	Yes	FACU
4. ledgro	Ledum groenlandicum	5	No	FACW
5. spiste	Spiraea stevenii	5	No	FAC
6. empnig	Empetrum nigrum	10	No	FAC
Total Cover:		55		
50% of total cover: 27.5		20% of total cover: 11		

Herb Stratum				
1. lyccla	Lycopodium clavatum	10	Yes	FACU
2. carcap	Carex capillaris	5	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		15		
50% of total cover: 7.5		20% of total cover: 3		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 85
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	30	x 3 =	60
FACU species	30	x 4 =	90
UPL species	25	x 5 =	100
Column Totals:	0	(A)	0
	85		250 (B)

Prevalence Index = B/A = 2.94

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Sphagnum 20% and lichen 65% species in depression. Juniperus communis 5%.

SOIL

Sampling Point: 105

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 2							Organics	
2 - 10	10 YR 4/1						Gravelly Sand	With Small Rocks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/27/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 106

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): 3

Subregion: Interior Alaska Lat: 66.98114881 Long: -154.9637302 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	30	Yes	FACW
2. betneo	Betula neoalaskana	5	No	FACU
3.				
4.				
	Total Cover:	35		
	50% of total cover: 17.5		20% of total cover: 7	

Sapling/Shrub Stratum				
1. betnan	Betula nana	15	Yes	FAC
2. picmar	Picea mariana	10	No	FACW
3. ledgro	Ledum groenlandicum	10	No	FACW
4. vacvit	Vaccinium vitis-idaea	5	No	FAC
5. vaculi	Vaccinium uliginosum	10	No	FAC
6. salsp.	Salix sp.	10	No	FACW
	Total Cover:	60		
	50% of total cover: 30		20% of total cover: 12	

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0		20% of total cover: 0	

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 65
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	30	x 3 =	90
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	95 (A)		230 (B)

Prevalence Index = B/A = 2.42

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: Lichen (65%).

SOIL

Sampling Point: 106

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4							Organics	
4 - 14	10 YR 4/2						Gravelly Loam	with Cobble at 4 inches

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/27/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 107

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): 3

Subregion: Interior Alaska Lat: 66.98060932 Long: -154.9677721 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	65	Yes	FACW
2. alnvir	Alnus viridis	45	Yes	FAC
3.				
4.				
Total Cover:		110		
50% of total cover: 55		20% of total cover: 22		

Sapling/Shrub Stratum				
1. betnan	Betula nana	20	Yes	FAC
2. salsp.	Salix sp.	20	Yes	FACW
3.				
4.				
5.				
6.				
Total Cover:		40		
50% of total cover: 20		20% of total cover: 8		

Herb Stratum				
1. calcan	Calamagrostis canadensis	65	Yes	FAC
2. parpal	Parnassia palustris	5	No	FACW
3. equpra	Equisetum pratense	5	No	FACW
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		75		
50% of total cover: 37.5		20% of total cover: 15		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	95	x 3 =	190
FACU species	130	x 4 =	390
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	225		580

Prevalence Index = B/A = 2.58

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 107

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4							Organics	
4 - 12	10 YR 4/2	75	7.5 YR 4/4	25	C	RC	Sandy Clay	With Gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___X Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___X Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
X Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/27/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 108

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): ____

Local relief (concave, convex, none): ____ Slope (%): 3

Subregion: Interior Alaska Lat: 67.00161363 Long: -151.9516453 Datum: NAD83

Soil Map Unit Name: ____ NWI classification: ____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No x
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. salsp.	Salix sp.	30	Yes	FACW
2. picmar	Picea mariana	10	No	FACW
3. alnvir	Alnus viridis	85	Yes	FAC
4.				
5.				
6.				
Total Cover:		125		
50% of total cover: 62.5		20% of total cover: 25		
Herb Stratum				
1. equpra	Equisetum pratense	5	Yes	FACW
2. anepar	Anemone parviflora	5	Yes	FACU
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		10		
50% of total cover: 5		20% of total cover: 2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	45	x 3 =	90
FACU species	85	x 4 =	255
UPL species	5	x 5 =	20
Column Totals:	0	(A)	0
	135		365

Prevalence Index = B/A = 2.70

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No ____

Remarks:

Dense canopy of Alnus viridis thicket with leaf litter.

SOIL

Sampling Point: 108

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 2							Organics	
2 - 18	10 YR 3/2						Sandy Loam	With Humic material
								gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
__X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

At 18 inches restrictive layer of gravel. Soil is mostly decomposing organic material throughout profile

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/28/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 109

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): Convex Slope (%): 3

Subregion: Interior Alaska Lat: 67.00121216 Long: -151.9488809 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Continuous sphagnum with *Cladonia species* on convex hillside.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	35	Yes	FACW
2.				
3.				
4.				
	Total Cover:	35		
	50% of total cover: 17.5		20% of total cover: 7	

Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	10	No	FAC
2. salsp.	Salix sp.	10	No	FACW
3. vaculi	Vaccinium uliginosum	15	Yes	FAC
4. dasfru	Dasiphora fruticosa	15	Yes	FAC
5. ledgro	Ledum groenlandicum	5	No	FACW
6. vacvit	Vaccinium vitis-idaea	5	No	FAC
	Total Cover:	60		
	50% of total cover: 30		20% of total cover: 12	

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0		20% of total cover: 0	

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	45	x 3 =	135
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		235 (B)

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 109

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 6							Moss/sphagnur material	
6 - 18	10 YR 3/3						Sandy Clay	With Gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

No restrictive layer observed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/28/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 110

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.16199673 Long: -157.0486844 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. salsp	Salix sp.	7	Yes	FACW
2. dasfru	Dasiphora fruticosa	15	Yes	FAC
3.				
4.				
5.				
6.				
Total Cover:		22		
50% of total cover: 11		20% of total cover: 4.4		
Herb Stratum				
1. equhye	Equisetum hyemale	75	Yes	FACW
2. erivag	Eriophorum vaginatum	10	No	FACW
3. parpal	Parnassia palustris	1	No	FACW
4. saxopp	Saxifraga oppositifolia	5	No	FAC
5. calcan	Calamagrostis canadensis	5	No	FAC
6.				
7.				
8.				
9.				
10.				
Total Cover:		96		
50% of total cover: 48		20% of total cover: 19.2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	93	x 3 =	186
FACU species	25	x 4 =	75
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	118		261

Prevalence Index = B/A = 2.21

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: Unknown grass (5%).

SOIL

Sampling Point: 110

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
1 -16	10 YR 4/1		7.5 YR 4/4				Sandy clay	Abundant Redox
16	7.5 YR 4/4						Gravel with	Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
X Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

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

Hydric Soil Present? Yes X No ___

Remarks:

Oxidized rhizospheres throughout profile. Iron oxides accumulated at gravel restrictive layer.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
X Oxidized Rhizospheres along Living Roots (C3)
X Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____
Water Table Present? Yes ___ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 111

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): ____

Local relief (concave, convex, none): ____ Slope (%): ____

Subregion: Interior Alaska Lat: 67.16051052 Long: -157.0554591 Datum: NAD83

Soil Map Unit Name: ____ NWI classification: ____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ____
Hydric Soil Present?	Yes x	No ____
Wetland Hydrology Present?	Yes x	No ____

Is the Sampled Area within a Wetland? Yes x No ____

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		

Sapling/Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. dasfru	Dasiphora fruticosa	5	No	FAC
2. shecan	Shepherdia canadensis	5	No	FACU
3. polviv	Polygonum viviparum	10	Yes	FAC
4. vaculi	Vaccinium uliginosum	3	No	FAC
5. salsp.	Salix sp.	3	No	FACW
6. rubarc	Rubus arcticus	2	No	FAC
Total Cover:		28		
50% of total cover: 14		20% of total cover: 5.6		

Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. arcalp	Arctostaphylos alpina	5	No	FAC
2. equflu	Equisetum fluviatile	5	No	OBL
3. erivag	Eriophorum vaginatum	30	Yes	FACW
4. calcan	Calamagrostis canadensis	10	Yes	FAC
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		50		
50% of total cover: 25		20% of total cover: 10		

Plot size (radius, or length x width) 15 foot radius % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	5	x 2 =	5
FAC species	33	x 3 =	66
FACU species	35	x 4 =	105
UPL species	5	x 5 =	20
Column Totals:	0	(A)	0 (B)
	78		196

Prevalence Index = B/A = 2.51

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No ____

Remarks:

Shepherdia canadensis and Salix sphenophylla dwarfed or stunted growth. Salix sphenophylla growing laterally. Unknown grass (10%).

SOIL

Sampling Point: 111

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Organics	
3 - 20	Gley2 4/5 ph						Clay loam	with Mica

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___X Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

Gleyed/low chroma colors and moderate organic streaking in surface layer of soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___X Water Marks (B1)
___ Sediment Deposits (B2)
___X Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
X Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
X Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____
Water Table Present? Yes X No ____ Depth (inches): 16
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 112

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.15369319 Long: -157.042458 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. dasfru	Dasiphora fruticosa	15	Yes	FAC
2. salsp.	Salix sp.	5	No	FACW
3. rubarc	Rubus arcticus	5	No	FAC
4. vaculi	Vaccinium uliginosum	1	No	FAC
5.				
6.				
Total Cover:		26		
50% of total cover: 13		20% of total cover: 5.2		
Herb Stratum				
1. parpal	Parnassia palustris	1	No	FACW
2. erivag	Eriophorum vaginatum	15	Yes	FACW
3. calcan	Calamagrostis canadensis	5	No	FAC
4. polviv	Polygonum viviparum	10	Yes	FAC
5. paprad	Papaver radicatum	1	No	UPL
6. sanoff	Sanguisorba officinalis	3	No	FAC
7.				
8.				
9.				
10.				
Total Cover:		35		
50% of total cover: 17.5		20% of total cover: 7		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	21	x 3 =	42
FACU species	39	x 4 =	117
UPL species	0	x 5 =	0
Column Totals:	1 (A)		5 (B)
	61		164

Prevalence Index = B/A = 2.69

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Ni species: Unknown forb 10%, Unknown Fabaceae (1%).

SOIL

Sampling Point: 112

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 24	10 YR 4/3						Fine Sand	with granular structure

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 113

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): ____

Local relief (concave, convex, none): ____ Slope (%): ____

Subregion: Interior Alaska Lat: 67.12704078 Long: -156.9956283 Datum: NAD83

Soil Map Unit Name: ____ NWI classification: ____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ____	**Is the Sampled Area within a Wetland?** Yes x No ____
Hydric Soil Present?	Yes x	No ____	
Wetland Hydrology Present?	Yes x	No ____	

Remarks:
Small area with change in vegetation with moderate sphagnum tussocks.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		

Sapling/Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. alnvir	Alnus viridis	3	No	FAC
2. betnan	Betula nana	40	Yes	FAC
3. ledgro	Ledum groenlandicum	30	Yes	FACW
4. rubcha	Rubus chamaemorus	5	No	FACW
5. vacvit	Vaccinium vitis-idaea	5	No	FAC
6. vaculi	Vaccinium uliginosum	10	No	FAC
Total Cover:		93		
50% of total cover: 46.5		20% of total cover: 18.6		

Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. arcalp	Arctostaphylos alpina	5	Yes	FAC
2. erivag	Eriophorum vaginatum	10	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		15		
50% of total cover: 7.5		20% of total cover: 3		

Plot size (radius, or length x width) 15 foot radius % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes ____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	45	x 3 =	90
FACU species	63	x 4 =	189
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	108		279

Prevalence Index = B/A = 2.58

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No ____

Remarks:

SOIL

Sampling Point: 113

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 18	10 YR 3/2						Organic Minera Soil	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
X Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 18

Hydric Soil Present? Yes X No ___

Remarks:

18 inch permafrost restrictive layer.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes X No ___ Depth (inches): 9
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 9

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Periodic inundation. Sample pit completely saturated at 9 inches.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 114

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.1283322 Long: -156.9913262 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Mosaic upland/wetland. Lichen and bare ground exposed at sampling location.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. betnan	Betula nana	15	Yes	FAC
2. ledgro	Ledum groenlandicum	5	No	FACW
3. arcalp	Arctostaphylos alpina	5	No	FAC
4. vaculi	Vaccinium uliginosum	15	Yes	FAC
5. empnig	Empetrum nigrum	10	Yes	FAC
6.				
Total Cover:		50		
50% of total cover: 25		20% of total cover: 10		
Herb Stratum				
1. erivag	Eriophorum vaginatum	20	Yes	FACW
2. calcan	Calamagrostis canadensis	5	No	FAC
3. parpal	Parnassia palustris	1	No	FACW
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		26		
50% of total cover: 13		20% of total cover: 5.2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	26	x 3 =	52
FACU species	50	x 4 =	150
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	76		202

Prevalence Index = B/A = 2.66

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 114

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4								
4 - 16	10 YR 4/1	80	7.5 YR 4/3	20				Very solid root mass in soil

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
__X Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____
Water Table Present? Yes ____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 115

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.12896175 Long: -156.9873865 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:
Bare ground.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	5	No	FACW
2. vaculi	Vaccinium uliginosum	5	No	FAC
3. betnan	Betula nana	5	No	FAC
4. betneo	Betula neoalaskana	7	No	FACU
5. arcalp	Arctostaphylos alpina	5	No	FAC
6. empnig	Empetrum nigrum	20	Yes	FAC
Total Cover:		47		
50% of total cover: 23.5		20% of total cover: 9.4		

Herb Stratum				
1. polviv	Polygonum viviparum	10	Yes	FAC
2. vacvit	Vaccinium vitis-idaea	5	Yes	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		15		
50% of total cover: 7.5		20% of total cover: 3		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 133% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	10	x 3 =	20
FACU species	50	x 4 =	150
UPL species	7	x 5 =	28
Column Totals:	0	(A)	0
	67		198

Prevalence Index = B/A = 2.96

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Shrub layer also included Picea mariana 3%. Unknown forb (5%)

SOIL

Sampling Point: 115

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** _____

Remarks:

No sample pit dug, gravel surface.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 116

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.12986306 Long: -156.9850501 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2.				
3.				
4.				
Total Cover:		15		
50% of total cover: 7.5		20% of total cover: 3		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	10	No	FACW
2. vaculi	Vaccinium uliginosum	15	Yes	FAC
3. ledgro	Ledum groenlandicum	10	No	FACW
4. alnvir	Alnus viridis	5	No	FAC
5. picmar	Picea mariana	10	No	FACW
6. betnan	Betula nana	15	Yes	FAC
Total Cover:		65		
50% of total cover: 32.5		20% of total cover: 13		

Herb Stratum				
1. erivag	Eriophorum vaginatum	5	Yes	FACW
2. equpra	Equisetum pratense	3	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		8		
50% of total cover: 4		20% of total cover: 1.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	53	x 3 =	106
FACU species	35	x 4 =	105
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	88		211

Prevalence Index = B/A = 2.40

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Shrub layer included Arctostahylos alpina (3%) and Vaccinium vitis-idaea.

SOIL

Sampling Point: 116

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10 YR 2/1						Humic Organic Matter	
12 - 20	10 YR 4/1						Sandy Loam	Granular

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 117

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.10499645 Long: -156.8341215 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Convex Spruce covered in lichen knoll. Fairly open over story and understory. Upland north end of transect 18.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	20	Yes	FACW
2.				
3.				
4.				
Total Cover:		20		
50% of total cover: 10		20% of total cover: 4		

Sapling/Shrub Stratum				
1. betnan	Betula nana	10	No	FAC
2. picmar	Picea mariana	10	No	FACW
3. vacvit	Vaccinium vitis-idaea	15	Yes	FAC
4. salsp.	Salix sp.	5	No	FACW
5. ledgro	Ledum groenlandicum	5	No	FACW
6. vaculi	Vaccinium uliginosum	10	No	FAC
Total Cover:		55		
50% of total cover: 27.5		20% of total cover: 11		

Herb Stratum				
1. lyccla	Lycopodium clavatum	85	Yes	FACU
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		85		
50% of total cover: 42.5		20% of total cover: 17		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	40	x 3 =	80
FACU species	35	x 4 =	105
UPL species	85	x 5 =	340
Column Totals:	0	(A)	0 (B)
	160		525

Prevalence Index = B/A = 3.28

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 117

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 2							Organic	Matter
2 - 6	10 YR 5/1						Sandy Loam	
6 - 16	7.5 YR 3/2						Granular Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

Well drained, no redox.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 118

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.10386333 Long: -156.8342402 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:
Drainage features to the knoll point above main species bluejoint (*Calamagrostis canadensis*) .

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0

Sapling/Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. salsp.	Salix sp.	50	Yes	FACW
2. spiste	Spiraea stevenii	5	No	FAC
3. vaculi	Vaccinium uliginosum	5	No	FAC
4. betnan	Betula nana	5	No	FAC
5.				
6.				
Total Cover:		65		
50% of total cover:		32.5	20% of total cover:	13

Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. calcan	Calamagrostis canadensis	85	Yes	FAC
2. compal	Comarum palustre	10	No	OBL
3. vioepi	Viola epipsila	5	No	FACW
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		100		
50% of total cover:		50	20% of total cover:	20

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	10	x 2 =	10
FAC species	55	x 3 =	110
FACU species	100	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	165		420

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 118

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

No sample pit dug. Drainage feature, with inundation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
X Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): _____

Water Table Present? Yes ____ No ____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 119

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.10277851 Long: -156.8360179 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. vacvit	Vaccinium vitis-idaea	5	No	FAC
2. ledgro	Ledum groenlandicum	5	No	FACW
3. betnan	Betula nana	10	Yes	FAC
4. empnig	Empetrum nigrum	5	No	FAC
5. rubcha	Rubus chamaemorus	10	Yes	FACW
6.				
Total Cover:		35		
50% of total cover: 17.5		20% of total cover: 7		
Herb Stratum				
1. calcan	Calamagrostis canadensis	10	Yes	FAC
2. erivag	Eriophorum vaginatum	35	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		45		
50% of total cover: 22.5		20% of total cover: 9		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 70

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	50	x 3 =	100
FACU species	30	x 4 =	90
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0
	80		190

Prevalence Index = B/A = 2.38

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 119

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10 YR 2/1						Humic Organic Matter	
8 - 14	10 YR 3/2						Sandy Clay Loam	
14							Permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- X Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: Permafrost

Depth (inches): 14

Hydric Soil Present? Yes X No ___

Remarks:

14 inch permafrost

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes X No ___ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 8

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 120

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.10084118 Long: -156.8418697 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum			Absolute % Cover	Dominant Species?	Indicator Status
1.	betneo	Betula neoalaskana	3	Yes	FACU
2.	picmar	Picea mariana	5	Yes	FACW
3.					
4.					
		Total Cover:	8		
		50% of total cover: 4	20% of total cover: 1.6		

Sapling/Shrub Stratum					
1.	alnvir	Alnus viridis	10	No	FAC
2.	betnan	Betula nana	10	No	FAC
3.	ledgro	Ledum groenlandicum	10	No	FACW
4.	vaculi	Vaccinium uliginosum	15	Yes	FAC
5.	vacvit	Vaccinium vitis-idaea	5	No	FAC
6.	salsp.	Salix sp.	5	No	FACW
		Total Cover:	55		
		50% of total cover: 27.5	20% of total cover: 11		

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		Total Cover:	0	
		50% of total cover: 0	20% of total cover: 0	

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 150
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	40	x 3 =	120
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column Totals:	63 (A)		172 (B)

Prevalence Index = B/A = 2.73

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Shrub layer: Arctostaphylos alpina (3%).

SOIL

Sampling Point: 120

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

Shallow pit dug. Moss and Lichen/Sphagnum over bedrock

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 121

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.03363407 Long: -156.6981652 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	20	Yes	FACW
2.				
3.				
4.				
	Total Cover:	20		
	50% of total cover: 10		20% of total cover: 4	

Sapling/Shrub Stratum				
1. picmar	Picea mariana	20	Yes	FACW
2. betnan	Betula nana	5	No	FAC
3. rubcha	Rubus chamaemorus	15	Yes	FACW
4. vaculi	Vaccinium uliginosum	20	Yes	FAC
5. vacvit	Vaccinium vitis-idaea	5	No	FAC
6. ledgro	Ledum groenlandicum	5	No	FACW
	Total Cover:	70		
	50% of total cover: 35		20% of total cover: 14	

Herb Stratum				
1. carsp.	Carex sp.	15	Yes	FACW
2. erivag	Eriophorum vaginatum	5	No	FACW
3. empnig	Empetrum nigrum	7	Yes	FAC
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	27		
	50% of total cover: 13.5		20% of total cover: 5.4	

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	80	x 3 =	160
FACU species	37	x 4 =	111
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	117		271

Prevalence Index = B/A = 2.32

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 121

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 12							Organic	
12 - 18	10 YR 3/1						Sandy Loam	
18							Permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 18

Hydric Soil Present? Yes ____ No X

Remarks:
No indications of hydric soil observed at sample location.

18 inches to permafrost

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

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

Remarks:
No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 122

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.03464345 Long: -156.7015253 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover: 0			
50% of total cover: 0	20% of total cover: 0		

Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
Total Cover: 0			
50% of total cover: 0	20% of total cover: 0		

Herb Stratum			
1. calcan Calamagrostis canadensis	85	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
Total Cover: 85			
50% of total cover: 42.5	20% of total cover: 17		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	85	x 4 =	255
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	85		255

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Calamagrostis canadensis dominated marsh in depressional opening in spruce canopy.

SOIL

Sampling Point: 122

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

No sample pit dug. Site inundated and contains hydrophytic vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 6

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/29/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 123

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.03436009 Long: -156.7044677 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	Yes	FACW
2. vaculi	Vaccinium uliginosum	10	Yes	FAC
3. rubcha	Rubus chamaemorus	10	Yes	FACW
4. ledgro	Ledum groenlandicum	10	Yes	FACW
5. betnan	Betula nana	5	No	FAC
6.				
Total Cover:		45		
50% of total cover: 22.5		20% of total cover: 9		

Herb Stratum				
1. carnor	Carex norvegica	10	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		10		
50% of total cover: 5		20% of total cover: 2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 70

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	45	x 3 =	90
FACU species	15	x 4 =	45
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	60		135

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: Sphagnum (70%).

SOIL

Sampling Point: 123

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 8							Moss/Organics	
8 - 15	10 YR 2/1						Organic material saturated peat	
15								permafrost

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

15 inches to permafrost

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
X Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 124

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.02539821 Long: -156.5412443 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		

Sapling/Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. alnvir	Alnus viridis	3	No	FAC
2. betnan	Betula nana	15	Yes	FAC
3. vaculi	Vaccinium uliginosum	10	No	FAC
4. ledgro	Ledum groenlandicum	10	No	FACW
5. vacvit	Vaccinium vitis-idaea	10	No	FAC
6. empnig	Empetrum nigrum	5	No	FAC
Total Cover:		53		
50% of total cover: 26.5		20% of total cover: 10.6		

Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. erivag	Eriophorum vaginatum	50	Yes	FACW
2. calcan	Calamagrostis canadensis	25	Yes	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		75		
50% of total cover: 37.5		20% of total cover: 15		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 60

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	68	x 3 =	204
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	128 (A)		324 (B)

Prevalence Index = B/A = 2.53

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Shrub Layer: Rubus chamaemorus (5%) and unknown Salix species (1%). Unknown grass (10%) and Lichen (3%).

SOIL

Sampling Point: 124

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 5							Organic	material. Humic
5 - 12	10 YR 3/2						Clay Loam	
12							permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 12"

Hydric Soil Present? Yes X No ___

Remarks:

12 inches to permafrost. Roots extended throughout profile to permafrost.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
X Geomorphic Position (D2)
X Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 125

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.02680877 Long: -156.544182 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		

Sapling/Shrub Stratum				
1. betnan	Betula nana	50	Yes	FAC
2. alnvir	Alnus viridis	15	No	FAC
3. vaculi	Vaccinium uliginosum	10	No	FAC
4. picmar	Picea mariana	5	No	FACW
5. ledgro	Ledum groenlandicum	20	No	FACW
6. salsp.	Salix sp.	3	No	FACW
Total Cover:		103		
50% of total cover: 51.5		20% of total cover: 20.6		

Herb Stratum				
1. equary	Equisetum arvense	3	Yes	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		3		
50% of total cover: 1.5		20% of total cover: 0.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 6

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	33	x 3 =	66
FACU species	78	x 4 =	234
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	111		300

Prevalence Index = B/A = 2.70

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: Lichen (3%)

SOIL

Sampling Point: 125

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4							Organic	Material and Sphagnum
4 - 14	10 YR 2/1						Organic	Material and Clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Rock
Depth (inches): 14

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes X No ___ Depth (inches): 14
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 6

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 126

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.02892914 Long: -156.5464249 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. betnan	Betula nana	5	No	FAC
2. ledgro	Ledum groenlandicum	10	Yes	FACW
3. rubcha	Rubus chamaemorus	3	No	FACW
4. vaculi	Vaccinium uliginosum	5	No	FAC
5. vacvit	Vaccinium vitis-idaea	3	No	FAC
6.				
Total Cover:		26		
50% of total cover: 13		20% of total cover: 5.2		
Herb Stratum				
1. erivag	Eriophorum vaginatum	35	Yes	FACW
2. carnor	Carex norvegica	35	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		70		
50% of total cover: 35		20% of total cover: 14		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 4

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	83	x 3 =	166
FACU species	13	x 4 =	39
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	96		205

Prevalence Index = B/A = 2.14

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: lichen (2%).

SOIL

Sampling Point: 126

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4							Organic	Material. Sphagnum
4 - 14	10 YR 3/1						Organic	Material with Clay
14 - 18	10 YR 4/1						Clay	
18							permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 18

Hydric Soil Present? Yes X No ___

Remarks:

18 inches to permafrost.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes X No ___ Depth (inches): 16
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 8

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012
Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 127
Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside
Local relief (concave, convex, none): convex Slope (%): _____
Subregion: Interior Alaska Lat: 67.04001107 Long: -156.3818663 Datum: NAD83
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	3	Yes	FACW
2.				
3.				
4.				
Total Cover:		3		
50% of total cover: 1.5		20% of total cover: 0.6		

Sapling/Shrub Stratum				
1. ribtri	Ribes triste	25	Yes	FAC
2. alnvir	Alnus viridis	65	Yes	FAC
3.				
4.				
5.				
6.				
Total Cover:		90		
50% of total cover: 45		20% of total cover: 18		

Herb Stratum				
1. equpra	Equisetum pratense	70	Yes	FACW
2. lycann	Lycopodium annotinum	20	Yes	FACU
3. petfri	Petasites frigidus	5	No	FACW
4. athfil	Athyrium filix-femina	2	No	FAC
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		97		
50% of total cover: 48.5		20% of total cover: 19.4		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	78	x 2 =	156
FAC species	92	x 3 =	276
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	190 (A)		512 (B)

Prevalence Index = B/A = 2.69

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%
Y Prevalence Index is ≤3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Leafy debris with dense Alnus viridis thicket. Understory of dense equisetum pratense.

SOIL

Sampling Point: 127

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4							Coarse Woody Debris	
4 - 10	10 YR 2/1						Organic	Material with clay
10 - 18	10 YR 2/2						Clay/Gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

18 inches to gravel restrictive layer.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 128

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.03984175 Long: -156.3812355 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. salsp	Salix sp.	3	No	FACW
2. betnan	Betula nana	15	No	FAC
3. vaculi	Vaccinium uliginosum	35	Yes	FAC
4. pedlab	Pedicularis labradorica	5	No	FACW
5. spiste	Spiraea stevenii	10	No	FAC
6. ledgro	Ledum groenlandicum	10	No	FACW
Total Cover:		78		
50% of total cover: 39		20% of total cover: 15.6		
Herb Stratum				
1. vacvit	Vaccinium vitis-idaea	5	Yes	FAC
2. lycann	Lycopodium annotinum	3	No	FACU
3. chaang	Chamerion angustifolium	5	Yes	FACU
4. empnig	Empetrum nigrum	3	No	FAC
5. linbor	Linnaea borealis	2	No	UPL
6.				
7.				
8.				
9.				
10.				
Total Cover:		18		
50% of total cover: 9		20% of total cover: 3.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 2

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	18	x 3 =	36
FACU species	68	x 4 =	204
UPL species	8	x 5 =	32
Column Totals:	2 (A)		10 (B)
	96		282

Prevalence Index = B/A = 2.94

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Open area between Alnus viridis thicket and Betula nana. Shrub layer: Rubus idaeus (3%). NI species: Lichen species 2%.

SOIL

Sampling Point: 128

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Organic with	thick roots
3 - 6	10 YR 3/2						Clayey	
6							Gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

Roots throughout profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 129

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.03931219 Long: -156.3804346 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. betneo	Betula neoalaskana	30	Yes	FACU
2. picmar	Picea mariana	5	No	FACW
3.				
4.				
	Total Cover:	35		
	50% of total cover: 17.5		20% of total cover: 7	

Sapling/Shrub Stratum				
1. vaculi	Vaccinium uliginosum	5	Yes	FAC
2. ledgro	Ledum groenlandicum	5	Yes	FACW
3. rubcha	Rubus chamaemorus	10	Yes	FACW
4. empnig	Empetrum nigrum	5	Yes	FAC
5.				
6.				
	Total Cover:	25		
	50% of total cover: 12.5		20% of total cover: 5	

Herb Stratum				
1. lycann	Lycopodium annotinum	15	Yes	FACU
2. arncha	Arnica chamissonis	5	No	FACW
3. carnor	Carex norvegica	10	Yes	FACW
4. pedlab	Pedicularis labradorica	5	No	FACW
5. linbor	Linnaea borealis	2	No	UPL
6.				
7.				
8.				
9.				
10.				
	Total Cover:	37		
	50% of total cover: 18.5		20% of total cover: 7.4	

Plot size (radius, or length x width) 15 foot radius % Bare Ground 15

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 71% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	40	x 3 =	80
FACU species	10	x 4 =	30
UPL species	45	x 5 =	180
Column Totals:	2	(A)	10 (B)
	97		300

Prevalence Index = B/A = 3.09

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No x

Remarks:

SOIL

Sampling Point: 129

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** _____

Remarks:

No pit dug. Bare ground and exposed bed rock.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 130

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): Concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.0387301 Long: -156.3767738 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:
Open peat bog/marsh area.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover: 0			
50% of total cover: 0	20% of total cover: 0		
Sapling/Shrub Stratum			
1. salsp. Salix sp.	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
Total Cover: 5			
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum			
1. carsp. Carex sp.	45	Yes	FACW
2. erivag Eriophorum vaginatum	10	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
Total Cover: 55			
50% of total cover: 27.5	20% of total cover: 11		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 95
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	60	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	60		120

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Spagnum 95%

SOIL

Sampling Point: 130

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Thick layers of organic material observed at sample point

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- X 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ 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)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): _____

Water Table Present? Yes ___ No ___ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): _____

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 131

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.03869469 Long: -156.3744907 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. rubcha	Rubus chamaemorus	5	No	FACW
2. empnig	Empetrum nigrum	10	Yes	FAC
3. vaculi	Vaccinium uliginosum	5	No	FAC
4. andpol	Andromeda polifolia	10	Yes	OBL
5.				
6.				
Total Cover:		30		
50% of total cover: 15		20% of total cover: 6		
Herb Stratum				
1. carsp.	Carex sp.	45	Yes	FACW
2. erivag	Eriophorum vaginatum	15	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		60		
50% of total cover: 30		20% of total cover: 12		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 60
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	10	x 2 =	10
FAC species	65	x 3 =	130
FACU species	15	x 4 =	45
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	90		185

Prevalence Index = B/A = 2.06

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Sampling site inundated. Lots of sphagnum 60% with stunted Andromeda polifolia.

SOIL

Sampling Point: 131

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Thick layers of organic material observed at sample point

Peat Bog

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- X 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ 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)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 132

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.05116493 Long: -156.1872883 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Lichen covered hillside.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	30	Yes	FACW
2. betneo	Betula neoalaskana	5	No	FACU
3.				
4.				
	Total Cover:	35		
	50% of total cover: 17.5	20% of total cover: 7		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	Yes	FACW
2. ledgro	Ledum groenlandicum	10	Yes	FACW
3. vaculi	Vaccinium uliginosum	5	No	FAC
4. vacvit	Vaccinium vitis-idaea	5	No	FAC
5. empnig	Empetrum nigrum	3	No	FAC
6.				
	Total Cover:	33		
	50% of total cover: 16.5	20% of total cover: 6.6		

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0	20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 85
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	50	x 3 =	100
FACU species	13	x 4 =	39
UPL species	5	x 5 =	20
Column Totals:	0 (A)		0
	68		159 (B)

Prevalence Index = B/A = 2.34

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
NI species: Lichen (85%).

SOIL

Sampling Point: 132

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Organic	Material
3 - 6	2.5 Y 4/1						Gravelly Clay	
6 - 10	2.5 Y 4/3						Gravelly Clay	
10 - 14	2.5 Y 3/2						Fine Gravel	
14							Gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 133

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.05377419 Long: -156.1870942 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	85	Yes	FACW
2. rubida	Rubus idaeus	3	No	FAC
3. picmar	Picea mariana	3	No	FACW
4. vaculi	Vaccinium uliginosum	5	No	FAC
5.				
6.				
Total Cover:		96		
50% of total cover: 48		20% of total cover: 19.2		

Herb Stratum				
1. vioepi	Viola epipsila	5	Yes	FACW
2. equpra	Equisetum pratense	3	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		8		
50% of total cover: 4		20% of total cover: 1.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	101	x 3 =	202
FACU species	8	x 4 =	24
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	109		226

Prevalence Index = B/A = 2.07

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Salix dominated marsh.

SOIL

Sampling Point: 133

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

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

Remarks: Saturated surface and standing water.
Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 134

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.05456568 Long: -156.1850404 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	25	Yes	FACW
2.				
3.				
4.				
Total Cover:		25		
50% of total cover: 12.5		20% of total cover: 5		

Sapling/Shrub Stratum				
1. vacvit	Vaccinium vitis-idaea	40	Yes	FAC
2. alnvir	Alnus viridis	35	Yes	FAC
3. salsp.	Salix sp.	15	No	FACW
4.				
5.				
6.				
Total Cover:		90		
50% of total cover: 45		20% of total cover: 18		

Herb Stratum				
1. vioepi	Viola epipsila	5	Yes	FACW
2. equarv	Equisetum arvense	5	Yes	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		10		
50% of total cover: 5		20% of total cover: 2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 80

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	125	(A)	330 (B)

Prevalence Index = B/A = 2.64

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: Sphagnum (80%).

SOIL

Sampling Point: 134

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 5							Organic	Material: Sphagnum
5 - 12	10 YR 3/2						Clay loam	Organics
12 - 18	10 YR 4/1						Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 18

Hydric Soil Present? Yes X No ___

Remarks:

Roots throughout profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 8

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012
Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 135
Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Terrace
Local relief (concave, convex, none): _____ Slope (%): _____
Subregion: Interior Alaska Lat: 67.05987521 Long: -156.8719784 Datum: NAD83
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2.				
3.				
4.				
Total Cover:		15		
50% of total cover: 7.5		20% of total cover: 3		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	5	No	FACW
2. vaculi	Vaccinium uliginosum	10	Yes	FAC
3. vacvit	Vaccinium vitis-idaea	5	No	FAC
4. ledgro	Ledum groenlandicum	7	Yes	FACW
5. empnig	Empetrum nigrum	3	No	FAC
6.				
Total Cover:		30		
50% of total cover: 15		20% of total cover: 6		

Herb Stratum				
1. equary	Equisetum arvense	3	Yes	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		3		
50% of total cover: 1.5		20% of total cover: 0.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____
% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 75

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	27	x 2 =	54
FAC species	21	x 3 =	63
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	48 (A)		117 (B)

Prevalence Index = B/A = 2.44

Hydrophytic Vegetation Indicators:
Y Dominance Test is >50%
Y Prevalence Index is ≤3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Spruce canopy with Lichen (75%).

SOIL

Sampling Point: 135

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 2							Organic	Material and Moss
2 - 22	7.5 YR 3/1						Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 136

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.06028308 Long: -155.8720353 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. salsp.	Salix sp.	40	Yes	FACW
2. dasfru	Dasiphora fruticosa	15	No	FAC
3. betnan	Betula nana	10	No	FAC
4. vaculi	Vaccinium uliginosum	25	Yes	FAC
5. rubida	Rubus idaeus	3	No	FAC
6.				
Total Cover:		93		
50% of total cover: 46.5		20% of total cover: 18.6		
Herb Stratum				
1. equpra	Equisetum pratense	5	Yes	FACW
2. erivag	Eriophorum vaginatum	10	Yes	FACW
3. calcan	Calamagrostis canadensis	5	Yes	FAC
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		20		
50% of total cover: 10		20% of total cover: 4		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 20
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	55	x 3 =	110
FACU species	58	x 4 =	174
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	113		284

Prevalence Index = B/A = 2.51

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Broad Willow drainage with narrow entrenched flowway. Sphagnum (20%)

SOIL

Sampling Point: 136

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 5							Organic	Material
5 - 20	10 YR 3/1						Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Clay
Depth (inches): 5

Hydric Soil Present? Yes ___ No X

Remarks:
No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
X Geomorphic Position (D2)
X Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 137

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.06101713 Long: -155.8719605 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	5	No	FACW
2. vacvit	Vaccinium vitis-idaea	5	No	FAC
3. vaculi	Vaccinium uliginosum	35	Yes	FAC
4. betnan	Betula nana	15	No	FAC
5. rubcha	Rubus chamaemorus	20	Yes	FACW
6. empnig	Empetrum nigrum	15	No	FAC
Total Cover:		95		
50% of total cover: 47.5		20% of total cover: 19		

Herb Stratum				
1. carnor	Carex norvegica	7	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		7		
50% of total cover: 3.5		20% of total cover: 1.4		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 85

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	37	x 3 =	74
FACU species	70	x 4 =	210
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	107		284

Prevalence Index = B/A = 2.65

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Occasional Carex tussocks throughout. High concentration of Empetrum nigrum, Rubus chamaemorus, with Sphagnum. Sphagnum (85%).

SOIL

Sampling Point: 137

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Organic	Material
3 - 10	10 YR 3/1						Loam Clay	with Organics
10 - 18	10 YR 5/1						Clay Loam	
18							Permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 18

Hydric Soil Present? Yes ____ No X

Remarks:
No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

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

Remarks:
No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 138

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Depression

Local relief (concave, convex, none): concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.0576893 Long: -155.8715161 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. betnan	Betula nana	5	Yes	FAC
2. salsp.	Salix sp.	10	Yes	FACW
3. rubpub	Rubus pubescens	5	Yes	FACW
4.				
5.				
6.				
Total Cover:		20		
50% of total cover: 10		20% of total cover: 4		
Herb Stratum				
1. erivag	Eriophorum vaginatum	55	Yes	FACW
2. corpau	Corydalis pauciflora	10	No	FAC
3. carutr	Carex utriculata	55	Yes	OBL
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		120		
50% of total cover: 60		20% of total cover: 24		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 75
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	55	x 2 =	55
FAC species	70	x 3 =	140
FACU species	15	x 4 =	45
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	140		240 (B)

Prevalence Index = B/A = 1.71

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Sphagnum (75%).

SOIL

Sampling Point: 138

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- X Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

No sampling pit. Sampling site inundated.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- X 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 2

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 139

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.05599255 Long: -155.8729524 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	Yes	FACW
2. rubcha	Rubus chamaemorus	10	Yes	FACW
3. empnig	Empetrum nigrum	10	Yes	FAC
4. vaculi	Vaccinium uliginosum	5	No	FAC
5. vacvit	Vaccinium vitis-idaea	5	No	FAC
6. betnan	Betula nana	5	No	FAC
Total Cover:		45		
50% of total cover: 22.5		20% of total cover: 9		

Herb Stratum				
1. carnor	Carex norvegica	35	Yes	FACW
2. erivag	Eriophorum vaginatum	35	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		70		
50% of total cover: 35		20% of total cover: 14		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 85

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	95	x 3 =	190
FACU species	25	x 4 =	75
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	120		265

Prevalence Index = B/A = 2.21

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Sphagnum (85%).

SOIL

Sampling Point: 139

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 7							Organic	Material
7 - 14	10 YR 3/1						Organic	Material-Clay roots
14 - 20	10 YR 4/1	70	10 YR 4/4	30			Clay	
20							Permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- X Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- X Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012
Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 140
Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Terrace
Local relief (concave, convex, none): Concave Slope (%): _____
Subregion: Interior Alaska Lat: 67.01612705 Long: -155.9121481 Datum: NAD83
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		
Sapling/Shrub Stratum				
1. rubcha	Rubus chamaemorus	5	No	FACW
2. betnan	Betula nana	15	Yes	FAC
3. vaculi	Vaccinium uliginosum	10	No	FAC
4. vacvit	Vaccinium vitis-idaea	5	No	FAC
5. empnig	Empetrum nigrum	10	No	FAC
6. ledgro	Ledum groenlandicum	10	No	FACW
Total Cover:		55		
50% of total cover: 27.5		20% of total cover: 11		
Herb Stratum				
1. erivag	Eriophorum vaginatum	65	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		65		
50% of total cover: 32.5		20% of total cover: 13		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	125 (A)		290 (B)

Prevalence Index = B/A = 2.32

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%
Y Prevalence Index is ≤3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Lichen (5%) and Sphagnum (65%).

SOIL

Sampling Point: 140

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Sphagnum	
3 - 13	10 YR 3/3						Organic	Material
13							Permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: Permafrost

Depth (inches): 13

Hydric Soil Present? Yes X No ___

Remarks:

Thick layers of organic material observed at sample point

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 3

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Pockets of inundation.

Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 141

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.01647055 Long: -155.9121306 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No x

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No x	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Upland hillside bare ground with Lichen and *Betula neoalaskana.* Wildlife seen: wolf, brown bear (with 2 cubs).

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. betneo	Betula neoalaskana	3	Yes	FACU
2. picmar	Picea mariana	5	Yes	FACW
3.				
4.				
	Total Cover:	8		
	50% of total cover: 4	20% of total cover: 1.6		

Sapling/Shrub Stratum				
1. betneo	Betula neoalaskana	10	Yes	FACU
2. picmar	Picea mariana	5	No	FACW
3. vacvit	Vaccinium vitis-idaea	5	No	FAC
4. vaculi	Vaccinium uliginosum	5	No	FAC
5. betnan	Betula nana	5	No	FAC
6.				
	Total Cover:	30		
	50% of total cover: 15	20% of total cover: 6		

Herb Stratum				
1. empnig	Empetrum nigrum	20	Yes	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	20		
	50% of total cover: 10	20% of total cover: 4		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 5

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 90
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	10	x 3 =	20
FACU species	35	x 4 =	105
UPL species	13	x 5 =	52
Column Totals:	0	(A)	0 (B)
	58		177

Prevalence Index = B/A = 3.05

Hydrophytic Vegetation Indicators:

No Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No x

Remarks:
Lichen over bedrock and gravel. Lichen (90%).

SOIL

Sampling Point: 141

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 5	10YR 3/1						Loam	Lichen with mineral soil
5							Gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/30/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 142

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Depression

Local relief (concave, convex, none): Concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.01823118 Long: -155.9125716 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No x

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:
Tussocks with standing water and patches of inundation.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. betnan	Betula nana	3	Yes	FAC
2. ledgro	Ledum groenlandicum	2	Yes	FACW
3. andpol	Andromeda polifolia	3	Yes	OBL
4.				
5.				
6.				
Total Cover:		8		
50% of total cover: 4		20% of total cover: 1.6		
Herb Stratum				
1. drorot	Drosera rotundifolia	2	No	OBL
2. plaaqu	Platanthera aquilonis	1	No	UPL
3. erivag	Eriophorum vaginatum	60	Yes	FACW
4. carsp.	Carex sp.	15	No	FACW
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		78		
50% of total cover: 39		20% of total cover: 15.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 75
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	5	x 2 =	5
FAC species	77	x 3 =	154
FACU species	3	x 4 =	9
UPL species	0	x 5 =	0
Column Totals:	1	(A)	5 (B)
	86		173

Prevalence Index = B/A = 2.01

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Sphagnum (75%) and Reindeer Lichen (3%).

SOIL

Sampling Point: 142

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

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

Remarks: Inundation and surface water present.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 143

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.02021197 Long: -155.9119778 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	35	Yes	FACW
2.				
3.				
4.				
Total Cover:		35		
50% of total cover: 17.5		20% of total cover: 7		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	Yes	FACW
2. rosaci	Rosa acicularis	15	Yes	FACU
3. vaculi	Vaccinium uliginosum	5	No	FAC
4. vacvit	Vaccinium vitis-idaea	10	Yes	FAC
5. ledgro	Ledum groenlandicum	3	No	FACW
6.				
Total Cover:		43		
50% of total cover: 21.5		20% of total cover: 8.6		

Herb Stratum				
1. calcan	Calamagrostis canadensis	10	Yes	FAC
2. lycann	Lycopodium annotinum	2	No	FACU
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		12		
50% of total cover: 6		20% of total cover: 2.4		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 60

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	48	x 2 =	96
FAC species	25	x 3 =	75
FACU species	17	x 4 =	68
UPL species	0	x 5 =	0
Column Totals:	90 (A)		239 (B)

Prevalence Index = B/A = 2.66

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Spruce understory thick with moss and sphagnum with patches of lichen. Closed canopy of spruce. Sphagnum (50%) and Lichen (12%).

SOIL

Sampling Point: 143

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 144

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): River bank

Local relief (concave, convex, none): convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.02465574 Long: -156.0861753 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: Riparian area above unnamed tributary to Mauneluk River. Approximately 10 feet from unnamed stream. Bank side of Picea mariana, Alnus viridis, Salix.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	35	Yes	FACW
2.				
3.				
4.				
	Total Cover:	35		
	50% of total cover: 17.5		20% of total cover: 7	

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	35	Yes	FACW
2. picmar	Picea mariana	10	No	FACW
3. betnan	Betula nana	15	No	FAC
4. vaculi	Vaccinium uliginosum	10	No	FAC
5. alnvir	Alnus viridis	25	Yes	FAC
6.				
	Total Cover:	95		
	50% of total cover: 47.5		20% of total cover: 19	

Herb Stratum				
1. equary	Equisetum arvense	5	No	FAC
2. calcan	Calamagrostis canadensis	25	Yes	FAC
3. anepar	Anemone parviflora	5	No	FACU
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	35		
	50% of total cover: 17.5		20% of total cover: 7	

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	80	x 3 =	160
FACU species	80	x 4 =	240
UPL species	5	x 5 =	20
Column Totals:	0 (A)		0 (B)
	165		420

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 144

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 2							Sphagnum	and Organic Material
2 - 17	10 YR 2/2						Sandy Clay	Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

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

Hydric Soil Present? Yes _____ No X

Remarks:
No indications of hydric soil observed at sample location.

Roots at 17 inches. Dense roots throughout profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:
"high dry" riparian ridge, steep stream banks.
No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012
Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 145
Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside
Local relief (concave, convex, none): Convex Slope (%): _____
Subregion: Interior Alaska Lat: 67.02488465 Long: -156.0838019 Datum: NAD83
Soil Map Unit Name: _____ NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Sloping tussocks in areas below and toe of slope of hillside. Riparian habitat.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	20	Yes	FACW
2.				
3.				
4.				
Total Cover:		20		
50% of total cover: 10		20% of total cover: 4		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	Yes	FACW
2. betnan	Betula nana	15	Yes	FAC
3. ledgro	Ledum groenlandicum	10	Yes	FACW
4. vaculi	Vaccinium uliginosum	10	Yes	FAC
5. vacvit	Vaccinium vitis-idaea	5	No	FAC
6.				
Total Cover:		50		
50% of total cover: 25		20% of total cover: 10		

Herb Stratum				
1. calcan	Calamagrostis canadensis	5	Yes	FAC
2. carnor	Carex norvegica	20	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		25		
50% of total cover: 12.5		20% of total cover: 5		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
Total Number of Dominant Species Across All Strata: 7 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	60	x 3 =	120
FACU species	35	x 4 =	105
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	95		225

Prevalence Index = B/A = 2.37

Hydrophytic Vegetation Indicators:
Y Dominance Test is >50%
Y Prevalence Index is ≤3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Lichen species 55%, Reindeer Lichen (45%).

SOIL

Sampling Point: 145

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Sphagnum	Lichen roots
3 - 6	7.5 YR 2.5/2						Organic	Material
6 - 20	7.5 YR 4/1						Some organic	streaking with silty clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

Damp soil but not saturated.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 146

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.02644774 Long: -156.0770898 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:
Shallow Eriophorum vaginatum tussocks with drainage features in marsh.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		

Sapling/Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. betnan	Betula nana	10	Yes	FAC
2. vaculi	Vaccinium uliginosum	7	Yes	FAC
3. vacvit	Vaccinium vitis-idaea	5	No	FAC
4. rubcha	Rubus chamaemorus	3	No	FACW
5. ledgro	Ledum groenlandicum	3	No	FACW
6.				
Total Cover:		28		
50% of total cover: 14		20% of total cover: 5.6		

Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. erivag	Eriophorum vaginatum	60	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		60		
50% of total cover: 30		20% of total cover: 12		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 45
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	66	x 3 =	132
FACU species	22	x 4 =	66
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	88		198

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Lichen (5%) and Sphagnum (40%).

SOIL

Sampling Point: 146

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4							Sphagnum and Organic Material	
4 - 16	10 YR 3/3						Organic	Material and Clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
_X_ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _X_ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
_S_ High Water Table (A2)
_X_ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
_X_ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No _X_ Depth (inches): _____
Water Table Present? Yes _X_ No ___ Depth (inches): 10
Saturation Present? (includes capillary fringe) Yes _X_ No ___ Depth (inches): 4

Wetland Hydrology Present? Yes _X_ No ___

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

Remarks: Saturated soils between 4 and 16 inches.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 147

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Stream bank

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 66.83426054 Long: -154.2681398 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No x	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Stream adjacent to sampling location with Alnus viridis, Betula neoalaskana, and Picea mariana in closed canopy.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	30	Yes	FACW
2. betneo	Betula neoalaskana	15	Yes	FACU
3.				
4.				
	Total Cover:	45		
	50% of total cover: 22.5		20% of total cover: 9	

Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	15	Yes	FAC
2. spiste	Spiraea stevenii	15	Yes	FAC
3. rosaci	Rosa acicularis	5	No	FACU
4. picmar	Picea mariana	5	No	FACW
5. ribtri	Ribes triste	10	No	FAC
6. betneo	Betula neoalaskana	10	No	FACU
	Total Cover:	60		
	50% of total cover: 30		20% of total cover: 12	

Herb Stratum				
1. gereri	Geranium erianthum	3	No	UPL
2. calcan	Calamagrostis canadensis	10	Yes	FAC
3. lycann	Lycopodium annotinum	7	Yes	FACU
4. anepar	Anemone parviflora	3	No	FACU
5. polviv	Polygonum viviparum	3	No	FAC
6.				
7.				
8.				
9.				
10.				
	Total Cover:	26		
	50% of total cover: 13		20% of total cover: 5.2	

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 65
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	53	x 3 =	159
FACU species	40	x 4 =	160
UPL species	3	x 5 =	15
Column Totals:	131	(A)	404 (B)

Prevalence Index = B/A = 3.08

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No x

Remarks:
Shurb layer: Rubus chamaemorus (5%). NI species: Sphagnum (65%).

SOIL

Sampling Point: 147

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 10	10 YR 3/3						Clay with	Roots
10 - 24	10 YR 4/4						Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Clay
Depth (inches): 0 to 24

Hydric Soil Present? Yes _____ No X

Remarks:
No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:
No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 148

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Stream

Local relief (concave, convex, none): Concave Slope (%): _____

Subregion: Interior Alaska Lat: 66.83402202 Long: -154.2673776 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes x	No _____	

Remarks: Stream west of centerline about 13 feet wide fast flowing with dense willow, Calamagrostis canadensis, Rubus chamaemorus and organic materials bankside. Stream substrate is organic materials and cobbles with rocks.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover: 0			
50% of total cover: 0	20% of total cover: 0		

Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
Total Cover: 0			
50% of total cover: 0	20% of total cover: 0		

Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
Total Cover: 0			
50% of total cover: 0	20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0 (B)
	0		0

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No _____

Remarks:

SOIL

Sampling Point: 148

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 149

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.8324824 Long: -154.2688384 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks: Mosaic of Sphagnum and Lichen with deposits of Eriophorum vaginatum in bogs.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	5	No	FACW
2. rubcha	Rubus chamaemorus	15	Yes	FACW
3. ledgro	Ledum groenlandicum	5	No	FACW
4. vaculi	Vaccinium uliginosum	5	No	FAC
5. vacvit	Vaccinium vitis-idaea	3	No	FAC
6.				
Total Cover:		33		
50% of total cover: 16.5		20% of total cover: 6.6		

Herb Stratum				
1.				
2.				
3.				
4.				
5. FALSE				
6.				
7.				
8.				
9.				
10.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 190

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	8	x 3 =	24
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	38 (A)		84 (B)

Prevalence Index = B/A = 2.21

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Reindeer Lichen (95%) and Sphagnum 95%).

SOIL

Sampling Point: 149

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Lichen and	Sphagnum
3 - 19							Peat	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Thick layers of organic material observed at sample point

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 16
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 4

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 150

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.8328466 Long: -154.2691231 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____
Hydric Soil Present?	Yes x	No _____
Wetland Hydrology Present?	Yes x	No _____

Is the Sampled Area within a Wetland? Yes x No _____

Remarks: Bog/Marsh with standing water and pockets of inundation Picea mariana, and Betula nana, Vaccinium uliginosum, and Ledum. Occasional small knolls with groenlandicum.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. betnan	Betula nana	3	Yes	FAC
2. salsp.	Salix sp.	1	Yes	FACW
3.				
4.				
5.				
6.				
Total Cover:		4		
50% of total cover: 2		20% of total cover: 0.8		
Herb Stratum				
1. carutr	Carex utriculata	45	Yes	OBL
2. erivag	Eriophorum vaginatum	40	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		85		
50% of total cover: 42.5		20% of total cover: 17		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 80

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	45	x 2 =	45
FAC species	41	x 3 =	82
FACU species	3	x 4 =	9
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0 (B)
	89		136

Prevalence Index = B/A = 1.53

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Sphagnum (80%).

SOIL

Sampling Point: 150

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

No sample pit. Site inundated.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 151

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside terrace

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.0611205 Long: -153.629065 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: High hillside terrace with lichen exposure in open canopy area.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	35	Yes	FACW
2.				
3.				
4.				
Total Cover:		35		
50% of total cover: 17.5		20% of total cover: 7		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	Yes	FACW
2. betnan	Betula nana	5	No	FAC
3. spiste	Spiraea stevenii	10	Yes	FAC
4. ledgro	Ledum groenlandicum	5	No	FACW
5. vacvit	Vaccinium vitis-idaea	5	No	FAC
6. vaculi	Vaccinium uliginosum	15	Yes	FAC
Total Cover:		50		
50% of total cover: 25		20% of total cover: 10		

Herb Stratum				
1. carnor	Carex norvegica	20	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		20		
50% of total cover: 10		20% of total cover: 4		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 110

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	70	x 3 =	140
FACU species	35	x 4 =	105
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0
	105		245

Prevalence Index = B/A = 2.33

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Reindeer Lichen (35%), Felt Lichen (10%), and Sphagnum (65%).

SOIL

Sampling Point: 151

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4							Sphagnum	
4 - 10	2.5 Y 2.5/1						Clay	
10 - 20	2.5 Y 4/2						Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 152

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.05695824 Long: -153.6284379 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2.				
3.				
4.				
Total Cover:		15		
50% of total cover: 7.5		20% of total cover: 3		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	15	No	FACW
2. salsp.	Salix sp.	30	Yes	FACW
3. vaculi	Vaccinium uliginosum	15	No	FAC
4. betnan	Betula nana	15	No	FAC
5. spiste	Spiraea stevenii	5	No	FAC
6.				
Total Cover:		80		
50% of total cover: 40		20% of total cover: 16		

Herb Stratum				
1. equary	Equisetum arvense	60	Yes	FAC
2. calcan	Calamagrostis canadensis	30	Yes	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		90		
50% of total cover: 45		20% of total cover: 18		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 65
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	60	x 3 =	120
FACU species	125	x 4 =	375
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	185		495

Prevalence Index = B/A = 2.68

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: Sphagnum (60%) and Felt Lichen (5%).

SOIL

Sampling Point: 152

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4							Organics	
4							Gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 153

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside terrace

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.0592065 Long: -153.6278096 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:
Shallow Carex tussocks with standing water.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. Salsp	Salix sp.	35	Yes	FACW
2. betnan	Betula nana	5	No	FAC
3. vaculi	Vaccinium uliginosum	5	No	FAC
4.				
5.				
6.				
Total Cover:		45		
50% of total cover: 22.5		20% of total cover: 9		
Herb Stratum				
1. carutr	Carex utriculata	65	Yes	OBL
2. erivag	Eriophorum vaginatum	10	No	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		75		
50% of total cover: 37.5		20% of total cover: 15		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	65	x 2 =	65
FAC species	45	x 3 =	90
FACU species	10	x 4 =	30
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	120		185

Prevalence Index = B/A = 1.54

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Unknown cotton flower (2%) and Sphagnum (70%).

SOIL

Sampling Point: 153

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 3

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 0

Wetland Hydrology Present? Yes X No ____

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012
Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 154
Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Terrace
Local relief (concave, convex, none): Convex Slope (%): _____
Subregion: Interior Alaska Lat: 67.05805005 Long: -153.6282056 Datum: NAD83
Soil Map Unit Name: _____ NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		

Sapling/Shrub Stratum				
1. dasfru	Dasiphora fruticosa	15	Yes	FAC
2. salsp.	Salix sp.	25	Yes	FACW
3. betnan	Betula nana	15	Yes	FAC
4. vaculi	Vaccinium uliginosum	10	No	FAC
5. arcalp	Arctostaphylos alpina	3	No	FAC
6.				
Total Cover:		68		
50% of total cover: 34		20% of total cover: 13.6		

Herb Stratum				
1. calcan	Calamagrostis canadensis	10	Yes	FAC
2. carnor	Carex norvegica	30	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		40		
50% of total cover: 20		20% of total cover: 8		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 75
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	60	x 3 =	120
FACU species	53	x 4 =	159
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	113		279

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%
Y Prevalence Index is ≤3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Lichen species (25%) and Sphagnum (50%).

SOIL

Sampling Point: 154

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 3/1						Organics with Clay	
4							Gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 155

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.05737375 Long: -153.6288179 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:
Carex tussocks (shallow approximately 0.25 m) with standing water..

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
	Total Cover:	0		
	50% of total cover: 0	20% of total cover: 0		

Sapling/Shrub Stratum					
1.	salsp.	Salix sp.	45	Yes	FACW
2.	vaculi	Vaccinium uliginosum	15	Yes	FAC
3.	andpol	Andromeda polifolia	5	No	OBL
4.					
5.					
6.					
		Total Cover:	65		
		50% of total cover: 32.5	20% of total cover: 13		

Herb Stratum					
1.	calcan	Calamagrostis canadensis	60	Yes	FAC
2.	compal	Comarum palustre	10	No	OBL
3.	equpra	Equisetum pratense	3	No	FACW
4.					
5.					
6.					
7.					
8.					
9.					
10.					
		Total Cover:	73		
		50% of total cover: 36.5	20% of total cover: 14.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	15	x 2 =	15
FAC species	48	x 3 =	96
FACU species	75	x 4 =	225
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	138		336

Prevalence Index = B/A = 2.43

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Sphagnum (50%)

SOIL

Sampling Point: 155

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ___X___ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? **Yes** X **No** _____

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

Remarks: Flowing water

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 156

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.05709918 Long: -153.6289329 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:
Herbaceous marsh.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	2	Yes	FACW
2.				
3.				
4.				
5.				
6.				
Total Cover:		2		
50% of total cover:		1	20% of total cover:	0.4

Herb Stratum				
1. compal	Comarum palustre	15	No	OBL
2. erivag	Eriophorum vaginatum	35	Yes	FACW
3. poapal	Poa palustris	70	Yes	FAC
4. vioepi	Viola epipsila	3	No	FACW
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		123		
50% of total cover:		61.5	20% of total cover:	24.6

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 20
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	15	x 2 =	15
FAC species	40	x 3 =	80
FACU species	70	x 4 =	210
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	125		305

Prevalence Index = B/A = 2.44

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Sphagnum (20%). Open water 20%.

SOIL

Sampling Point: 156

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): 8

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 157

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.05618243 Long: -153.6284238 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum			Absolute % Cover	Dominant Species?	Indicator Status
1.	picmar	Picea mariana	25	Yes	FACW
2.	poptre	Populus tremuloides	5	No	FACU
3.					
4.					
		Total Cover:	30		
		50% of total cover: 15		20% of total cover: 6	

Sapling/Shrub Stratum					
1.	picmar	Picea mariana	15	Yes	FACW
2.	salsp.	Salix sp.	10	Yes	FACW
3.	ledgro	Ledum groenlandicum	3	No	FACW
4.	betnan	Betula nana	5	No	FAC
5.	empnig	Empetrum nigrum	3	No	FAC
6.	vacvit	Vaccinium vitis-idaea	3	No	FAC
		Total Cover:	39		
		50% of total cover: 19.5		20% of total cover: 7.8	

Herb Stratum					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
		Total Cover:	0		
		50% of total cover: 0		20% of total cover: 0	

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 65

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	53	x 2 =	106
FAC species	11	x 3 =	33
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	69 (A)		159 (B)

Prevalence Index = B/A = 2.30

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Shrub layer: Vaccinium uliginosum (5%). Felt lichen (5%) and lichen (60%).

SOIL

Sampling Point: 157

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Organic	Material
3 - 15	2.5 Y 4/2						Clay Loam	
15							Gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012
Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 158
Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Terrace
Local relief (concave, convex, none): Convex Slope (%): _____
Subregion: Interior Alaska Lat: 67.06139518 Long: -153.8727909 Datum: NAD83
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Varying densities of Betula nana.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	20	Yes	FACW
2.				
3.				
4.				
Total Cover:		20		
50% of total cover: 10		20% of total cover: 4		

Sapling/Shrub Stratum				
1. betnan	Betula nana	65	Yes	FAC
2. vaculi	Vaccinium uliginosum	5	No	FAC
3. vacvit	Vaccinium vitis-idaea	3	No	FAC
4. picmar	Picea mariana	5	No	FACW
5. ledgro	Ledum groenlandicum	5	No	FACW
6. spiste	Spiraea stevenii	5	No	FAC
Total Cover:		88		
50% of total cover: 44		20% of total cover: 17.6		

Herb Stratum				
1. carnor	Carex norvegica	60	Yes	FACW
2. calcan	Calamagrostis canadensis	10	No	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		70		
50% of total cover: 35		20% of total cover: 14		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	90	x 3 =	180
FACU species	88	x 4 =	264
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	178		444

Prevalence Index = B/A = 2.49

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%
Y Prevalence Index is ≤3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
NI species: Felt Lichen (3%) and Sphagnum (45%).

SOIL

Sampling Point: 158

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4							Organic	Material-Sphagnum
4 - 20	10 YR 4/3						Clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012
Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 159
Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): hillside
Local relief (concave, convex, none): Convex Slope (%): _____
Subregion: Interior Alsaka Lat: 67.05960045 Long: -153.8715982 Datum: NAD83
Soil Map Unit Name: _____ NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Spruce lichen knoll

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2. poptre	Populus tremuloides	5	Yes	FACU
3.				
4.				
Total Cover:		20		
50% of total cover: 10		20% of total cover: 4		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	2	No	FACW
2. betnan	Betula nana	5	Yes	FAC
3. ledgro	Ledum groenlandicum	5	Yes	FACW
4. vacvit	Vaccinium vitis-idaea	5	Yes	FAC
5. picmar	Picea mariana	2	No	FACW
6. spiste	Spiraea stevenii	5	Yes	FAC
Total Cover:		24		
50% of total cover: 12		20% of total cover: 4.8		

Herb Stratum				
1. lycann	Lycopodium annotinum	3	Yes	FACU
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		3		
50% of total cover: 1.5		20% of total cover: 0.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 90
(Where applicable)

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
Total Number of Dominant Species Across All Strata: 7 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 71% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	24	x 2 =	48
FAC species	15	x 3 =	45
FACU species	8	x 4 =	32
UPL species	0	x 5 =	0
Column Totals:	47 (A)		125 (B)

Prevalence Index = B/A = 2.66

Hydrophytic Vegetation Indicators:
Y Dominance Test is >50%
Y Prevalence Index is ≤3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
NI species: Sphagnum (10%) and Lichen (90%).

SOIL

Sampling Point: 159

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 1							Lichen matt	
1 - 11	2.5 Y 5/3						Clay/Loam	
11							Gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 7/31/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 160

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.05734172 Long: -153.8721205 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
High concentration of Labrador tea *(Ledum groenlandicum).*

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	20	Yes	FACW
2.				
3.				
4.				
Total Cover:		20		
50% of total cover: 10		20% of total cover: 4		

Sapling/Shrub Stratum				
1. spiste	Spiraea stevenii	5	No	FAC
2. empnig	Empetrum nigrum	10	No	FAC
3. ledgro	Ledum groenlandicum	25	Yes	FACW
4. betnan	Betula nana	30	Yes	FAC
5. salsp.	Salix sp.	10	No	FACW
6. picmar	Picea mariana	20	Yes	FACW
Total Cover:		100		
50% of total cover: 50		20% of total cover: 20		

Herb Stratum				
1. carnor	Carex norvegica	35	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		35		
50% of total cover: 17.5		20% of total cover: 7		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 65

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	110	x 3 =	220
FACU species	45	x 4 =	135
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	155		355

Prevalence Index = B/A = 2.29

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Shrub Layer: Rubus chamaemorus (2%), Populus tremuloides (5%), and vaccinium vitis-idaea (5%). Sphagnum (40%) and Lichen (25%).

SOIL

Sampling Point: 160

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 161

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Depression

Local relief (concave, convex, none): Concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.05044252 Long: -152.2502059 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks: North end of transect with cotton grass (Eriophorum vaginatum) in marsh area. With Salix on edges.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0
Sapling/Shrub Stratum				
1. Salsp.	Salix sp.	3	Yes	FACW
2.				
3.				
4.				
5.				
6.				
Total Cover:		3		
50% of total cover:		1.5	20% of total cover:	0.6
Herb Stratum				
1. erivag	Eriophorum vaginatum	60	Yes	FACW
2. carsp.	Carex sp.	15	No	FACW
3. calcan	Calamagrostis canadensis	10	No	FAC
4. compal	Comarum palustre	15	No	OBL
5. anepar	Anemone parviflora	5	No	FACU
6.				
7.				
8.				
9.				
10.				
Total Cover:		105		
50% of total cover:		52.5	20% of total cover:	21

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 65

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	15	x 2 =	15
FAC species	78	x 3 =	156
FACU species	10	x 4 =	30
UPL species	5	x 5 =	20
Column Totals:	0 (A)		0 (B)
	108		221

Prevalence Index = B/A = 2.05

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: Sphagnum species 65 percent cover.

SOIL

Sampling Point: 161

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 6

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

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

Remarks: Inundated to 6 inches.

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 162

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): Concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.04901471 Long: -152.2463546 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. salsp	Salix sp.	15	Yes	FACW
2. betnan	Betula nana	15	Yes	FAC
3. vaculi	Vaccinium uliginosum	5	No	FAC
4. rubcha	Rubus chamaemorus	5	No	FACW
5.				
6.				
Total Cover:		40		
50% of total cover: 20		20% of total cover: 8		
Herb Stratum				
1. carnor	Carex norvegica	5	No	FACW
2. calcan	Calamagrostis canadensis	35	Yes	FAC
3. erivag	Eriophorum vaginatum	5	No	FACW
4. chaang	Chamerion angustifolium	3	No	FACU
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		48		
50% of total cover: 24		20% of total cover: 9.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 70

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	30	x 3 =	60
FACU species	55	x 4 =	165
UPL species	3	x 5 =	12
Column Totals:	0	(A)	0
	88		237

Prevalence Index = B/A = 2.69

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Sphagnum 70 percent cover.

SOIL

Sampling Point: 162

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 6							Organic	Material Saturated
6 - 20	10 YR 4/1	70	10 YR 4/4	30			Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____
Water Table Present? Yes ____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 6

Wetland Hydrology Present? Yes X No ____

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 163

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): ____

Local relief (concave, convex, none): ____ Slope (%): ____

Subregion: Interior Alaska Lat: 67.04784825 Long: -152.2443605 Datum: NAD83

Soil Map Unit Name: ____ NWI classification: ____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2. salsp.	Salix sp.	10	Yes	FACW
3.				
4.				
	Total Cover:	25		
	50% of total cover: 12.5	20% of total cover: 5		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	5	No	FACW
2. salsp.	Salix sp.	45	Yes	FACW
3. alnvir	Alnus viridis	45	Yes	FAC
4. spiste	Spiraea stevenii	5	No	FAC
5. betnan	Betula nana	10	No	FAC
6. vaculi	Vaccinium uliginosum	5	No	FAC
	Total Cover:	115		
	50% of total cover: 57.5	20% of total cover: 23		

Herb Stratum				
1. calcan	Calamagrostis canadensis	70	Yes	FAC
2. chaang	Chamerion angustifolium	5	No	FACU
3. equarv	Equisetum arvense	15	No	FAC
4. equpra	Equisetum pratense	5	No	FACW
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	95		
	50% of total cover: 47.5	20% of total cover: 19		

Plot size (radius, or length x width) 15 foot radius % Bare Ground ____

% Cover of Wetland Bryophytes ____ Total Cover of Bryophytes 50
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	80	x 3 =	160
FACU species	150	x 4 =	450
UPL species	5	x 5 =	20
Column Totals:	0 (A)		0
	235		630

Prevalence Index = B/A = 2.68

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

Peltigera lichen 10%, sphagnum species 30%, and lichen species 10%.

SOIL

Sampling Point: 163

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 1							Organic	Material
1 - 17	7.5 YR 3/1	70	7.5 YR 3/4	30			Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 164

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.07226914 Long: -152.4866013 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	50	Yes	FACW
2. betnan	Betula nana	35	Yes	FAC
3. spiste	Spiraea stevenii	15	No	FAC
4. vaculi	Vaccinium uliginosum	5	No	FAC
5. rubcha	Rubus chamaemorus	5	No	FACW
6. ledgro	Ledum groenlandicum	3	No	FACW
Total Cover:		113		
50% of total cover: 56.5		20% of total cover: 22.6		

Herb Stratum				
1. equary	Equisetum arvense	5	Yes	FAC
2. lycann	Lycopodium annotinum	5	Yes	FACU
3. chaang	Chamerion angustifolium	3	No	FACU
4. calcan	Calamagrostis canadensis	10	Yes	FAC
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		23		
50% of total cover: 11.5		20% of total cover: 4.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 70

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	63	x 2 =	126
FAC species	70	x 3 =	210
FACU species	8	x 4 =	32
UPL species	0	x 5 =	0
Column Totals:	141 (A)		368 (B)

Prevalence Index = B/A = 2.61

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Felt lichen (5%) and Sphagnum (65%).

SOIL

Sampling Point: 164

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 165

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Terrace

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.07362191 Long: -152.4848667 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	10	Yes	FACW
2.				
3.				
4.				
Total Cover:		10		
50% of total cover: 5		20% of total cover: 2		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	5	No	FACW
2. betnan	Betula nana	10	Yes	FAC
3. vaculi	Vaccinium uliginosum	5	No	FAC
4. rubcha	Rubus chamaemorus	5	No	FACW
5. ledgro	Ledum groenlandicum	7	No	FACW
6. salsp.	Salix sp.	10	Yes	FACW
Total Cover:		42		
50% of total cover: 21		20% of total cover: 8.4		

Herb Stratum				
1. carnor	Carex norvegica	20	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		20		
50% of total cover: 10		20% of total cover: 4		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 90

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	57	x 2 =	114
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	72	(A)	159 (B)

Prevalence Index = B/A = 2.21

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Sphagnum species 85% and lichen species 5%.

SOIL

Sampling Point: 165

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4							Sphagnum	
4 - 16	10 YR 3/1						Organic	Material-Peat
16							Permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 16

Hydric Soil Present? Yes ____ No X

Remarks:
No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

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

Remarks:
No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 166

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.07426594 Long: -152.4835708 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	20	Yes	FACW
2.				
3.				
4.				
Total Cover:		20		
50% of total cover: 10		20% of total cover: 4		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	20	Yes	FACW
2. betnan	Betula nana	15	Yes	FAC
3. alnvir	Alnus viridis	10	No	FAC
4. picmar	Picea mariana	5	No	FACW
5. vaculi	Vaccinium uliginosum	10	No	FAC
6. vacvit	Vaccinium vitis-idaea	10	No	FAC
Total Cover:		70		
50% of total cover: 35		20% of total cover: 14		

Herb Stratum				
1. lycann	Lycopodium annotinum	15	Yes	FACU
2. ledgro	Ledum groenlandicum	5	No	FACW
3. calcan	Calamagrostis canadensis	10	Yes	FAC
4. chaang	Chamerion angustifolium	3	No	FACU
5. geoliv	Geocaulon lividum	3	No	FACU
6. moelat	Moehringia lateriflora	3	No	FACU
7.				
8.				
9.				
10.				
Total Cover:		39		
50% of total cover: 19.5		20% of total cover: 7.8		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 55

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	55	x 3 =	165
FACU species	24	x 4 =	96
UPL species	0	x 5 =	0
Column Totals:	129	(A)	361 (B)

Prevalence Index = B/A = 2.80

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Shurb layer: Ledum groenlandicum (5%). Lichen (55%).

SOIL

Sampling Point: 166

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 2							Organic	Material-Lichen mat
2 - 7	5 YR 4/3						Gravel and	Sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

Shallow pit due to hard rocks and gravel.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 167

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Convex Slope (%): 30

Subregion: Interior Alaska Lat: 67.08708992 Long: -152.6329361 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: Understory of green alder *(Alnus viridus)* and black spruce *(Picea mariana)* with patches of dwarf birch *(Betula nana)* thickets on hillside.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum			Absolute % Cover	Dominant Species?	Indicator Status
1.	picmar	Picea mariana	10	Yes	FACW
2.	betneo	Betula neoalaskana	15	Yes	FACU
3.					
4.					
		Total Cover:	25		
		50% of total cover: 12.5		20% of total cover: 5	

Sapling/Shrub Stratum					
1.	picmar	Picea mariana	3	No	FACW
2.	betnan	Betula nana	5	No	FAC
3.	vaculi	Vaccinium uliginosum	3	No	FAC
4.	alnvir	Alnus viridis	10	Yes	FAC
5.	rosaci	Rosa acicularis	2	No	FACU
6.	vacvit	Vaccinium vitis-idaea	3	No	FAC
		Total Cover:	26		
		50% of total cover: 13		20% of total cover: 5.2	

Herb Stratum					
1.	chaang	Chamerion angustifolium	2	Yes	FACU
2.	equsci	Equisetum scirpoides	3	Yes	FACU
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
		Total Cover:	5		
		50% of total cover: 2.5		20% of total cover: 1	

Plot size (radius, or length x width) 15 foot radius % Bare Ground 80

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 15

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	13	x 2 =	26
FAC species	21	x 3 =	63
FACU species	22	x 4 =	88
UPL species	0	x 5 =	0
Column Totals:	56	(A)	177 (B)

Prevalence Index = B/A = 3.16

Hydrophytic Vegetation Indicators:

No Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Sphagnum (10%) and Felt Lichen (5%).

SOIL

Sampling Point: 167

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 2							Organic matter	Leaf litter
2 - 8	10YR 4/3						Loam	
8							Gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 168

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.08871298 Long: -152.6320906 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	5	No	FAC
2. picmar	Picea mariana	3	No	FACW
3. betnan	Betula nana	10	No	FAC
4. ledgro	Ledum groenlandicum	35	Yes	FACW
5. vacvit	Vaccinium vitis-idaea	5	No	FAC
6. rubcha	Rubus chamaemorus	15	Yes	FACW
Total Cover:		73		
50% of total cover: 36.5		20% of total cover: 14.6		
Herb Stratum				
1. erivag	Eriophorum vaginatum	20	Yes	FACW
2. carnor	Carex norvegica	65	Yes	FACW
3. chaang	Chamerion angustifolium	3	No	FACU
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		88		
50% of total cover: 44		20% of total cover: 17.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	138	x 3 =	276
FACU species	20	x 4 =	60
UPL species	3	x 5 =	12
Column Totals:	0	(A)	0
	161		348

Prevalence Index = B/A = 2.16

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 168

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 5							Organic	Material and Sphagnum
5 - 8	10 YR 3/1						Organic	Material
8 - 16	10 YR 4/3						Organic	Material and Clay
16							Permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 16

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 8

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 169

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Convex Slope (%): 8 to 10

Subregion: Interior Alaska Lat: 67.09016257 Long: -152.6310884 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Betula neoalaskana and *Alnus viridis* canopy.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. betneo	Betula neoalaskana	25	Yes	FACU
2. picmar	Picea mariana	5	No	FACW
3.				
4.				
Total Cover:		30		
50% of total cover: 15		20% of total cover: 6		

Sapling/Shrub Stratum				
1. betnan	Betula nana	5	No	FAC
2. alnvir	Alnus viridis	15	Yes	FAC
3. rosaci	Rosa acicularis	5	No	FACU
4. spiste	Spiraea stevenii	5	No	FAC
5. picmar	Picea mariana	5	No	FACW
6. rubida	Rubus idaeus	10	Yes	FAC
Total Cover:		45		
50% of total cover: 22.5		20% of total cover: 9		

Herb Stratum				
1. chaang	Chamerion angustifolium	5	Yes	FACU
2. carnor	Carex norvegica	5	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		10		
50% of total cover: 5		20% of total cover: 2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 65

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	35	x 3 =	105
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	85	(A)	275 (B)

Prevalence Index = B/A = 3.24

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 169

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 4							Organic	Material with dense roots
4 - 14	7.5 YR 2.5/1						Sandy Loam	with clay
14							Cobble/Gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 170

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Terrace

Local relief (concave, convex, none): Concave Slope (%): 8 to 10

Subregion: Interior Lat: 67.10208322 Long: -152.8393916 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:
Sitka alder *(Alnus virdis)* clearing on north facing slope. Deep tussocks extending to north end of transect.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	10	Yes	FAC
2. ledgro	Ledum groenlandicum	10	Yes	FACW
3. arcalp	Arctostaphylos alpina	5	No	FAC
4. vaculi	Vaccinium uliginosum	10	Yes	FAC
5. salsp.	Salix sp.	15	Yes	FACW
6.				
Total Cover:		50		
50% of total cover: 25		20% of total cover: 10		
Herb Stratum				
1. erivag	Eriophorum vaginatum	20	Yes	FACW
2. chaang	Chamerion angustifolium	5	Yes	FACU
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		25		
50% of total cover: 12.5		20% of total cover: 5		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 70

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	45	x 3 =	90
FACU species	25	x 4 =	75
UPL species	5	x 5 =	20
Column Totals:	0 (A)		0 (B)
	75		185

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Sphagnum (70%).

SOIL

Sampling Point: 170

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Organic	Material
3 - 9	10 YR 3/1						Humic	Organic material
9 - 19	5 Y 2.5/2						Clay	
19							Permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
_X_ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
_X_ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Clay
Depth (inches): 9 inches below surface

Hydric Soil Present? Yes _X_ No ___

Remarks:

19 inches to permafrost

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
_X_ High Water Table (A2)
_X_ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
_X_ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No _X_ Depth (inches): ___
Water Table Present? Yes _X_ No ___ Depth (inches): 5
Saturation Present? (includes capillary fringe) Yes _X_ No ___ Depth (inches): 0

Wetland Hydrology Present? Yes _X_ No ___

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

Remarks:

Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 171

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hummocks

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.1023778 Long: -152.8384526 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Peat hummocks in complex with cotton grass *(Eriphorium vaginatum)* bogs.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	No	FACW
2. betnan	Betula nana	15	Yes	FAC
3. ledgro	Ledum groenlandicum	20	Yes	FACW
4. vacvit	Vaccinium vitis-idaea	5	No	FAC
5. vaculi	Vaccinium uliginosum	5	No	FAC
6. spiste	Spiraea stevenii	15	Yes	FAC
Total Cover:		70		
50% of total cover: 35		20% of total cover: 14		

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 13
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75	(A)	190 (B)

Prevalence Index = B/A = 2.53

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
NI species: Reindeer lichen (10%) and Lichen (3%).

SOIL

Sampling Point: 171

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 16							Peat	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Thick layers of organic material observed at sample point

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- X Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): _____
Water Table Present?	Yes ___	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): _____

Wetland Hydrology Present? Yes ___ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 172

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.10461124 Long: -152.8408381 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:
Small open canopy next to bog area with Willows *(Salix species)* .

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	20	Yes	FACW
2.				
3.				
4.				
Total Cover:		20		
50% of total cover: 10		20% of total cover: 4		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	15	Yes	FACW
2. betnan	Betula nana	10	Yes	FAC
3. vaculi	Vaccinium uliginosum	5	No	FAC
4. vacvit	Vaccinium vitis-idaea	3	No	FAC
5. salsp.	Salix sp.	5	No	FACW
6. ledgro	Ledum groenlandicum	10	Yes	FACW
Total Cover:		48		
50% of total cover: 24		20% of total cover: 9.6		

Herb Stratum				
1. erivag	Eriophorum vaginatum	10	No	FACW
2. carnor	Carex norvegica	45	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		55		
50% of total cover: 27.5		20% of total cover: 11		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 75
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	105	x 3 =	210
FACU species	18	x 4 =	54
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	123		264

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Sphagnum (70%) and Felt Lichen (5%).

SOIL

Sampling Point: 172

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 3							Sphagnum	
3 - 12	10 YR 3/2						Humic organics	
12							Permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 12

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
X Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0 to 3

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 173

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Terrace

Local relief (concave, convex, none): None Slope (%): _____

Subregion: Interior Alaska Lat: 67.10630801 Long: -152.8423524 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No x	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: Lichen on exposed rock knoll. Exposed habitat occurs frequently along ridgeline.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. poptre	Populus tremuloides	2	Yes	FACU
2. picmar	Picea mariana	2	Yes	FACW
3.				
4.				
Total Cover:		4		
50% of total cover: 2		20% of total cover: 0.8		

Sapling/Shrub Stratum				
1. betnan	Betula nana	5	No	FAC
2. poptre	Populus tremuloides	5	No	FACU
3. picmar	Picea mariana	5	No	FACW
4. empnig	Empetrum nigrum	5	No	FAC
5. salsp.	Salix sp.	5	No	FACW
6. vaculi	Vaccinium uliginosum	3	No	FAC
Total Cover:		28		
50% of total cover: 14		20% of total cover: 5.6		

Herb Stratum				
1. lycann	Lycopodium annotinum	3	Yes	FACU
2. chaang	Chamerion angustifolium	3	Yes	FACU
3. dryfra	Dryopteris fragrans	3	Yes	UPL
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		9		
50% of total cover: 4.5		20% of total cover: 1.8		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 65

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 3
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	12	x 3 =	24
FACU species	13	x 4 =	39
UPL species	13	x 5 =	52
Column Totals:	3	(A)	15 (B)
	41		130

Prevalence Index = B/A = 3.17

Hydrophytic Vegetation Indicators:

No Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No x

Remarks:

Bare Ground/Rock 65%

SOIL

Sampling Point: 173

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No indications of hydric soil observed at sample location.

Rock outcrop/gravel

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 174

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Depression

Local relief (concave, convex, none): Concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.10291555 Long: -152.8395467 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. picmar	Picea mariana	3	No	FACW
2. betnan	Betula nana	3	No	FAC
3. ledgro	Ledum groenlandicum	3	No	FACW
4. vaculi	Vaccinium uliginosum	3	No	FAC
5. empnig	Empetrum nigrum	3	No	FAC
6. rubcha	Rubus chamaemorus	10	Yes	FACW
Total Cover:		25		
50% of total cover: 12.5		20% of total cover: 5		
Herb Stratum				
1. erivag	Eriophorum vaginatum	40	Yes	FACW
2. carnor	Carex norvegica	60	Yes	FACW
3. compal	Comarum palustre	5	No	OBL
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		105		
50% of total cover: 52.5		20% of total cover: 21		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 5

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	5	x 2 =	5
FAC species	116	x 3 =	232
FACU species	9	x 4 =	27
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	130		264

Prevalence Index = B/A = 2.03

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Lichen (5%), Sphagnum, and open water.

SOIL

Sampling Point: 174

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
X Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

Soils inundated.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 8
Water Table Present? Yes ____ No ____ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012
Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 175
Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside
Local relief (concave, convex, none): Concave Slope (%): 15
Subregion: Interior Alaska Lat: 67.07845393 Long: -153.0856634 Datum: NAD83
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:
Dense tussocks with shrubs consisting of *Betula nana* on the hillside. South end of transect 33.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	10	Yes	FACW
2.				
3.				
4.				
Total Cover:		10		
50% of total cover: 5		20% of total cover: 2		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	5	No	FACW
2. betnan	Betula nana	10	Yes	FAC
3. ledgro	Ledum groenlandicum	5	No	FACW
4. vaculi	Vaccinium uliginosum	10	Yes	FAC
5. empnig	Empetrum nigrum	5	No	FAC
6. rubcha	Rubus chamaemorus	5	No	FACW
Total Cover:		40		
50% of total cover: 20		20% of total cover: 8		

Herb Stratum				
1. carnor	Carex norvegica	45	Yes	FACW
2. erivag	Eriophorum vaginatum	5	No	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		50		
50% of total cover: 25		20% of total cover: 10		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 88
(Where applicable)

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	75	x 3 =	150
FACU species	25	x 4 =	75
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	100		225

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:
Y Dominance Test is >50%
Y Prevalence Index is ≤3.0
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Sphagnum (85%) and Lichen (3%).

SOIL

Sampling Point: 175

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 6							Organic	Material
6 - 19	10 YR 3/2						Organic	Material with clay
19							Permafrost	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 19

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 6

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 176

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.07766595 Long: -153.0851977 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:
Sitka alder *(Alnus viridis)* on hillside with tussocks. South end of transect 33.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover: 2.5		20% of total cover: 1		

Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	15	Yes	FAC
2. picmar	Picea mariana	5	No	FACW
3. betnan	Betula nana	10	No	FAC
4. vaculi	Vaccinium uliginosum	15	Yes	FAC
5. vacvit	Vaccinium vitis-idaea	3	No	FAC
6. ledgro	Ledum groenlandicum	5	No	FACW
Total Cover:		53		
50% of total cover: 26.5		20% of total cover: 10.6		

Herb Stratum				
1. carnor	Carex norvegica	35	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		35		
50% of total cover: 17.5		20% of total cover: 7		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 90

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	50	x 3 =	100
FACU species	43	x 4 =	129
UPL species	0	x 5 =	0
Column Totals:	0	(A)	0
	93		229

Prevalence Index = B/A = 2.46

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Sphagnum (85%) and Lichen (5%).

SOIL

Sampling Point: 176

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 - 7							Roots and	Organics over rocks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Rock
Depth (inches): 7

Hydric Soil Present? Yes ____ No X

Remarks:
No indications of hydric soil observed at sample location.

Roots and organics over rocks.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

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

Remarks:
No field indication of hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/1/2012

Applicant/Owner: State of Alaska Department of Transportation & Public Facilities Sampling Point: 177

Investigator(s): JC, EG Landform (hillside, terrace, hummocks, etc.): Hillside

Local relief (concave, convex, none): Concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.08077173 Long: -153.0893576 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:
Saturated with patches of inundation at bottom of hillside on north end of transect 33.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover: 0		20% of total cover: 0		
Sapling/Shrub Stratum				
1. betnan	Betula nana	5	No	FAC
2. vaculi	Vaccinium uliginosum	10	Yes	FAC
3. vacvit	Vaccinium vitis-idaea	3	No	FAC
4. ledgro	Ledum groenlandicum	5	No	FACW
5. rubcha	Rubus chamaemorus	10	Yes	FACW
6. picmar	Picea mariana	5	No	FACW
Total Cover:		38		
50% of total cover: 19		20% of total cover: 7.6		
Herb Stratum				
1. erivag	Eriophorum vaginatum	20	Yes	FACW
2. carnor	Carex norvegica	20	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		40		
50% of total cover: 20		20% of total cover: 8		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 30
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	0	x 2 =	0
FAC species	60	x 3 =	120
FACU species	18	x 4 =	54
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)
	78		174

Prevalence Index = B/A = 2.23

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Sphagnum (30%).

SOIL

Sampling Point: 177

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
X Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

Soils inundated

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 8
Water Table Present? Yes ____ No ____ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/31/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 178

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): Rolling hillside

Local relief (concave, convex, none): convex Slope (%): 0-5

Subregion: Interior Alaska Lat: 67.03429647 'N Long: 154.76376517 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: Historic burn (20-50 yrs.). Rolling rocky hillside with exposed bedrock.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	20	Yes	FACW
2. poptre	Populus tremuloides	10	Yes	FACU
3.				
4.				
	Total Cover:	30		
	50% of total cover: 15	20% of total cover: 6		

Sapling/Shrub Stratum				
1. betnan	Betula nana	15	Yes	FAC
2. ledgro	Ledum groenlandicum	20	Yes	FACW
3. vaculi	Vaccinium uliginosum	15	Yes	FAC
4. spiste	Spiraea stevenii	5	No	FAC
5. vacvit	Vaccinium vitis-idaea	5	No	FAC
6. picmar	Picea mariana	5	No	FACW
	Total Cover:	65		
	50% of total cover: 32.5	20% of total cover: 13		

Herb Stratum				
1. calcan	Calamagrostis canadensis	10	Yes	FAC
2. elysp.	Elymus sp.	5	Yes	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	15		
	50% of total cover: 7.5	20% of total cover: 3		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 10

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 15

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 86% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	55	x 3 =	165
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	110 (A)		295 (B)

Prevalence Index = B/A = 2.68

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: *Lycopodium* (5%), *Cladina* (10%), *Cladonia* (25%), club moss (5%).

SOIL

Sampling Point: 178

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3								organic
3-9	10yr 4/3						clay loam	
9-24	7.5yr 3/2						gravel/loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>24___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>24___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/31/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 179

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): depression

Local relief (concave, convex, none): concave Slope (%): 0-2

Subregion: Interior Alaska Lat: 67.03213269 'N Long: 154.76403087 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____
Hydric Soil Present?	Yes x	No _____
Wetland Hydrology Present?	Yes x	No _____

Is the Sampled Area within a Wetland? Yes x No _____

Remarks:
Digressional area with exposed bedrock.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	0		
50% of total cover: 0	20% of total cover: 0		

Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
Total Cover:	0		
50% of total cover: 0	20% of total cover: 0		

Herb Stratum			
1. calcan Calamagrostis canadensis	85	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
Total Cover:	85		
50% of total cover: 42.5	20% of total cover: 17		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 15

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	85	x 3 =	255
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	85 (A)		255 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 179

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
_X_ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Rock
Depth (inches): 0

Hydric Soil Present? Yes _X_ No ___

Remarks:

Bedrock is at the surface. No indicator of hydric soils. Algal mats and bare ground was observed in some areas.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
_X_ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
_X_ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No _x_ Depth (inches): ___
Water Table Present? Yes ___ No _x_ Depth (inches): >0
Saturation Present? (includes capillary fringe) Yes ___ No _x_ Depth (inches): >0

Wetland Hydrology Present? Yes _x_ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/31/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 180

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hilltop

Local relief (concave, convex, none): _____ Slope (%): 2-10

Subregion: Interior Alaska Lat: 67.03035081 'N Long: 154.76293622 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover:		2.5	20% of total cover:	1

Sapling/Shrub Stratum				
1. picmar	Picea mariana	5	No	FACW
2. betnan	Betula nana	10	Yes	FAC
3. ledgro	Ledum groenlandicum	15	Yes	FACW
4. vaculi	Vaccinium uliginosum	10	Yes	FAC
5. empnig	Empetrum nigrum	5	No	FAC
6.				
Total Cover:		45		
50% of total cover:		22.5	20% of total cover:	9

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0

Plot size (radius, or length x width) 15 foot radius % Bare Ground 5

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 65
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	50 (A)		125 (B)

Prevalence Index = B/A = 2.50

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: *Cladonia* (15%), *Cladina* (25%).

SOIL

Sampling Point: 180

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2								organics, moss/lichen
2-12	10yr 5/4							granular clay loam with organics

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Rocks and roots
Depth (inches): 12

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >12
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): >12

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/31/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 181

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 67.0305769 'N Long: 154.7629362 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____
Hydric Soil Present?	Yes x	No _____
Wetland Hydrology Present?	Yes x	No _____

Is the Sampled Area within a Wetland? Yes x No _____

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	0		
50% of total cover: 0	20% of total cover: 0		

Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
Total Cover:	0		
50% of total cover: 0	20% of total cover: 0		

Herb Stratum				
1. erivag	Eriophorum vaginatum	60	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:	60			
50% of total cover: 30	20% of total cover: 12			

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes 40 (Where applicable) Total Cover of Bryophytes _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	60 (A)		120 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

Emergent *eriophorum* marsh with open water.

SOIL

Sampling Point: 181

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

Open water.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes x ____ No _____ Depth (inches): 0-18

Water Table Present? Yes x ____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes x ____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes x ____ No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/31/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 182

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): convex Slope (%): 0-4

Subregion: Interior Alaska Lat: 67.010521832 'N Long: 154.6238169 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____
Hydric Soil Present?	Yes x	No _____
Wetland Hydrology Present?	Yes x	No _____

Is the Sampled Area within a Wetland? Yes x No _____

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2.				
3.				
4.				
	Total Cover:	15		
	50% of total cover: 7.5		20% of total cover: 3	

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	No	FACW
2. betnan	Betula nana	15	Yes	FAC
3. vaculi	Vaccinium uliginosum	15	Yes	FAC
4. vacvit	Vaccinium vitis-idaea	5	No	FAC
5. empnig	Empetrum nigrum	3	No	FAC
6. ledgro	Ledum groenlandicum	15	Yes	FACW
	Total Cover:	63		
	50% of total cover: 31.5		20% of total cover: 12.6	

Herb Stratum				
1. calcan	Calamagrostis canadensis	10	Yes	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	10		
	50% of total cover: 5		20% of total cover: 2	

Plot size (radius, or length x width) 15 foot radius % Bare Ground 10

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 30
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 125% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	48	x 3 =	144
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	88 (A)		224 (B)

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: *Cladonia* (10%), *Cladina* (15%), leaf lichen (5%). *Picea mariana* area between *Salix sp.* drainages.

SOIL

Sampling Point: 182

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								organics
6-18	10yr 2/1						clay with loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
X Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
X Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
X Drainage Patterns (B10)
X Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): >18

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/31/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 183

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): _____ Slope (%): 5

Subregion: Interior Alaska Lat: 67.0118880 'N Long: 154.6231279 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks: Willows *(Salix species)* in broad, shallow hillside drainages. Black spruce *(Picea mariana)* along the edges of the drainages.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
	Total Cover:	5		
	50% of total cover: 2.5	20% of total cover: 1		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	65	Yes	FACW
2. vaculi	Vaccinium uliginosum	5	No	FAC
3.				
4.				
5.				
6.				
	Total Cover:	70		
	50% of total cover: 35	20% of total cover: 14		

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0	20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		155 (B)

Prevalence Index = B/A = 2.07

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: club moss (5%). *Salix sp.* has a shallow drainage. Picea mariana *is up to 2M.*

SOIL

Sampling Point: 183

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10yr 2/1						clay with loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
X Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
X Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes x No ____ Depth (inches): 0-5

Water Table Present? Yes x No ____ Depth (inches): 0-5

Saturation Present? (includes capillary fringe) Yes x No ____ Depth (inches): _____

Wetland Hydrology Present? Yes x No ____

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

Remarks:

Broad drainage in areas of surface flow.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/31/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 184

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): convex Slope (%): 5-8

Subregion: Interior Alaska Lat: 67.01406722 'N Long: 154.61973384 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2.				
3.				
4.				
	Total Cover:	15		
	50% of total cover: 7.5	20% of total cover: 3		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	No	FACW
2. rubcha	Rubus chamaemorus	5	No	FACW
3. alnvir	Alnus viridis	5	No	FAC
4. ledgro	Ledum groenlandicum	65	Yes	FACW
5. vaculi	Vaccinium uliginosum	15	No	FAC
6. salsp.	Salix sp.	5	No	FACW
	Total Cover:	105		
	50% of total cover: 52.5	20% of total cover: 21		

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0	20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	120 (A)		260 (B)

Prevalence Index = B/A = 2.17

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

"High" spots between finger drainage.

SOIL

Sampling Point: 184

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4								organics
4-14	10yr 2/1						clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 14

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
x Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >14
Saturation Present? (includes capillary fringe) Yes x No _____ Depth (inches): 6

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/31/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 185

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.020543569 'N Long: 154.488080539 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: Dry hillside with continuous moss cover.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2. poptre	Populus tremuloides	3	Yes	FACU
3.				
4.				
	Total Cover:	8		
	50% of total cover: 4	20% of total cover: 1.6		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	3	No	FACW
2. betnan	Betula nana	3	No	FAC
3. ledgro	Ledum groenlandicum	15	Yes	FACW
4. vaculi	Vaccinium uliginosum	5	No	FAC
5.				
6.				
	Total Cover:	26		
	50% of total cover: 13	20% of total cover: 5.2		

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0	20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 45

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	23	x 2 =	46
FAC species	8	x 3 =	24
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column Totals:	34 (A)		82 (B)

Prevalence Index = B/A = 2.41

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: club moss (45%).

SOIL

Sampling Point: 185

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2								organic
2-6	1oyr 5/4						loam	
6-28	10yr 3/2					loamy sand and granular		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>28___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>28___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/31/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 186

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): depression

Local relief (concave, convex, none): concave Slope (%): 0-2

Subregion: Interior Alaska Lat: 67.019289435 'N Long: 154.48548472 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____
Hydric Soil Present?	Yes x	No _____
Wetland Hydrology Present?	Yes x	No _____

Is the Sampled Area within a Wetland? Yes x No _____

Remarks: Depressed bog with saturated sphagnum and pockets of standing water.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover:	2.5	20% of total cover:	1	

Sapling/Shrub Stratum				
1. betnan	Betula nana	10	Yes	FAC
2. vaculi	Vaccinium uliginosum	5	No	FAC
3. picmar	Picea mariana	5	No	FACW
4. ledgro	Ledum groenlandicum	15	Yes	FACW
5. empnig	Empetrum nigrum	10	Yes	FAC
6. rubcha	Rubus chamaemorus	3	No	FACW
Total Cover:		48		
50% of total cover:	24	20% of total cover:	9.6	

Herb Stratum				
1. calcan	Calamagrostis canadensis	25	Yes	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		25		
50% of total cover:	12.5	20% of total cover:	5	

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	28	x 2 =	56
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	78 (A)		206 (B)

Prevalence Index = B/A = 2.64

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum species (25%).

SOIL

Sampling Point: 186

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

Standing water.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
X Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X ____ No _____ Depth (inches): 24

Water Table Present? Yes X ____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X ____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X ____ No _____

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

Remarks:

Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/31/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 187

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside drainage

Local relief (concave, convex, none): concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.018763290 'N Long: 154.485275828 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____
Hydric Soil Present?	Yes x	No _____
Wetland Hydrology Present?	Yes x	No _____

Is the Sampled Area within a Wetland? Yes x No _____

Remarks:
Broad hillside drainage with swift flow, approximatley 3 feet deep with dense willows *(Salix soecies)* .

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0

Sapling/Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. salsp.	Salix sp.	75	Yes	FACW
2. betnan	Betula nana	5	No	FAC
3.				
4.				
5.				
6.				
Total Cover:		80		
50% of total cover:		40	20% of total cover:	16

Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. compal	Comarum palustre	5	Yes	OBL
2. calcan	Calamagrostis canadensis	15	Yes	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		20		
50% of total cover:		10	20% of total cover:	4

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	75	x 2 =	150
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		215 (B)

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
Salix sp has finger drainages with swift flow and 3 feet deep.

SOIL

Sampling Point: 187

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

Flowing water.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X ____ No _____ Depth (inches): 36

Water Table Present? Yes X ____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X ____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X ____ No _____

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 8/31/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 188

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.018893775 'N Long: 154.483785432 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____
Hydric Soil Present?	Yes x	No _____
Wetland Hydrology Present?	Yes x	No _____

Is the Sampled Area within a Wetland? Yes x No _____

Remarks:
Dense willows *(Salix species)* in broad, shallow hillside drainages with grass fringes.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0
Sapling/Shrub Stratum				
1. salsp.	Salix sp.	70	Yes	FACW
2.				
3.				
4.				
5.				
6.				
Total Cover:		70		
50% of total cover:		35	20% of total cover:	14
Herb Stratum				
1. calcan	Calamagrostis canadensis	70	Yes	FAC
2. compal	Comarum palustre	5	No	OBL
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		75		
50% of total cover:		37.5	20% of total cover:	15

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	70	x 2 =	140
FAC species	70	x 3 =	210
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	145 (A)		355 (B)

Prevalence Index = B/A = 2.45

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 188

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

Standing water observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X ____ No _____ Depth (inches): 30 30

Water Table Present? Yes X ____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X ____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X ____ No _____

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

Remarks:

Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 189

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside depression

Local relief (concave, convex, none): concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.024333115 'N Long: 154.3634129 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes x	No _____	

Remarks: Historic burn area. Varied densities of *Carex species tussocks.*

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	10	Yes	FACW
2. poptre	Populus tremuloides	5	Yes	FACU
3.				
4.				
Total Cover:		15		
50% of total cover: 7.5		20% of total cover: 3		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	3	No	FACW
2. betnan	Betula nana	3	No	FAC
3. vaculi	Vaccinium uliginosum	15	Yes	FAC
4. ledgro	Ledum groenlandicum	25	Yes	FACW
5. vaculi	Vaccinium uliginosum	5	No	FAC
6. empnig	Empetrum nigrum	5	No	FAC
Total Cover:		56		
50% of total cover: 28		20% of total cover: 11.2		

Herb Stratum				
1. erivag	Eriophorum vaginatum	5	Yes	FACW
2. carnor	Carex norvegica	5	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		10		
50% of total cover: 5		20% of total cover: 2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 5

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 80

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	48	x 2 =	96
FAC species	28	x 3 =	84
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	81 (A)		200 (B)

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum, (15%), club moss (65%).

SOIL

Sampling Point: 189

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								organics
6-18	10yr 4/1						sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

Sphagnum, boggy area adjacent to emergent low lakes.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
_x_ High Water Table (A2)
_x_ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _x___ No _____ Depth (inches): ___8___

Saturation Present? (includes capillary fringe) Yes _x___ No _____ Depth (inches): ___6___

Wetland Hydrology Present? Yes _x___ No _____

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 190

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): high hillside

Local relief (concave, convex, none): _____ Slope (%): 5-8

Subregion: Interior Alaska Lat: 67.0224170768 'N Long: 154.361767560 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: Historic burned area. Pockets of abundant *Picea mariana* regeneration observed.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2. poptre	Populus tremuloides	10	Yes	FACU
3.				
4.				
	Total Cover:	25		
	50% of total cover: 12.5	20% of total cover: 5		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	15	Yes	FACW
2. poptre	Populus tremuloides	5	No	FACU
3. vaculi	Vaccinium uliginosum	10	No	FAC
4. spiste	Spiraea stevenii	10	No	FAC
5. vacvit	Vaccinium vitis-idaea	3	No	FAC
6. ledgro	Ledum groenlandicum	15	Yes	FACW
	Total Cover:	58		
	50% of total cover: 29	20% of total cover: 11.6		

Herb Stratum				
1. equary	Equisetum arvense	5	Yes	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	5		
	50% of total cover: 2.5	20% of total cover: 1		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 35

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	28	x 3 =	84
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	88 (A)		234 (B)

Prevalence Index = B/A = 2.66

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: leaf lichen (5%), *lichen species* (25%), pixie cup lichen (5%).

SOIL

Sampling Point: 190

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2								organic
2-22	10yr 5/3						granular sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>22___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>22___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 191

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): convex Slope (%): _____

Subregion: Interior Alaska Lat: 67.021088355 'N Long: 154.3604082 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. betneo	Betula neoalaskana	15	Yes	FACU
2. picmar	Picea mariana	5	Yes	FACW
3.				
4.				
	Total Cover:	20		
	50% of total cover: 10	20% of total cover: 4		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	5	No	FACW
2. betneo	Betula neoalaskana	10	Yes	FACU
3. vaculi	Vaccinium uliginosum	10	Yes	FAC
4. salsp.	Salix sp.	10	Yes	FACW
5. empnig	Empetrum nigrum	5	No	FAC
6.				
	Total Cover:	40		
	50% of total cover: 20	20% of total cover: 8		

Herb Stratum				
1. geoliv	Geocaulon lividum	5	Yes	FACU
2. calcan	Calamagrostis canadensis	5	Yes	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	10		
	50% of total cover: 5	20% of total cover: 2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 50

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	20	x 3 =	60
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	70 (A)		220 (B)

Prevalence Index = B/A = 3.14

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

No Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 191

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-1								organic
1-5	7.5yr 5/6						dry granular sand	
5-22	10yr 5/4						dry granular sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>22___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>22___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 192

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): convex Slope (%): 25-30

Subregion: Interior Alaska Lat: 67.0200719620 'N Long: 154.36014423 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: South end of transect 37. Steep hillside riparian area to the Kobuk River. Kobuk River is in the flood stage at the toe of slope.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. betneo	Betula neoalaskana	10	Yes	FACU
2. picmar	Picea mariana	2	No	FACW
3.				
4.				
	Total Cover:	12		
	50% of total cover: 6	20% of total cover: 2.4		

Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	35	Yes	FAC
2. betneo	Betula neoalaskana	5	No	FACU
3. rosaci	Rosa acicularis	5	No	FACU
4. ledgro	Ledum groenlandicum	15	Yes	FACW
5. dasfru	Dasiphora fruticosa	5	No	FAC
6. vaculi	Vaccinium uliginosum	10	No	FAC
	Total Cover:	75		
	50% of total cover: 37.5	20% of total cover: 15		

Herb Stratum				
1. vioepi	Viola epipsila	5	Yes	FACW
2. carnor	Carex norvegica	5	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	10		
	50% of total cover: 5	20% of total cover: 2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 25

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 15
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	27	x 2 =	54
FAC species	50	x 3 =	150
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	97 (A)		284 (B)

Prevalence Index = B/A = 2.93

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: 192

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2								root mass w/ detritus
2-12	10yr 4/2						gravely sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Gravel/rock
Depth (inches): 12

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location. Dense roots observed throughout the entire profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >12
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): >12

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 193

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): river bank

Local relief (concave, convex, none): concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.02021073650 'N Long: 154.359741989 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks: Kobuk River edge. River in flood stage.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	25	Yes	FACW
2.				
3.				
4.				
	Total Cover:	25		
	50% of total cover: 12.5	20% of total cover: 5		

Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	25	Yes	FAC
2. salsp.	Salix sp.	15	Yes	FACW
3. dasfru	Dasiphora fruticosa	5	No	FAC
4.				
5.				
6.				
	Total Cover:	45		
	50% of total cover: 22.5	20% of total cover: 9		

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0	20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 25

% Cover of Wetland Bryophytes (Where applicable) 15 Total Cover of Bryophytes 15

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	70 (A)		170 (B)

Prevalence Index = B/A = 2.43

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 193

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

Saturated soils/standing water is observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X Surface Water (A1)
___ High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X ____ No _____ Depth (inches): _____

Water Table Present? Yes X ____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X ____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X ____ No _____

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

Remarks:

Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 195

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): terrace

Local relief (concave, convex, none): level bottom Slope (%): 0-2

Subregion: Interior Alaska Lat: 67.03361853840 'N Long: 154.25755598 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks: Tussocky area with vegetation between the river bank and the foothills.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	3	Yes	FACW
2.				
3.				
4.				
	Total Cover:	3		
	50% of total cover: 1.5	20% of total cover: 0.6		

Sapling/Shrub Stratum				
1. betnan	Betula nana	3	No	FAC
2. vaculi	Vaccinium uliginosum	5	Yes	FAC
3. ledgro	Ledum groenlandicum	10	Yes	FACW
4. empnig	Empetrum nigrum	5	Yes	FAC
5.				
6.				
	Total Cover:	23		
	50% of total cover: 11.5	20% of total cover: 4.6		

Herb Stratum				
1. erivag	Eriophorum vaginatum	45	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	45		
	50% of total cover: 22.5	20% of total cover: 9		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 20

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 25

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	58	x 2 =	116
FAC species	13	x 3 =	39
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	71 (A)		155 (B)

Prevalence Index = B/A = 2.18

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum (25%).

SOIL

Sampling Point: 195

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4								organic
4-22	gley 2 4/5PB							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- X Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: Permafrost

Depth (inches): 22

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ 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)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes X No ___ Depth (inches): 8

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 6

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 196

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): low hillside

Local relief (concave, convex, none): concave Slope (%): 2

Subregion: Interior Alaska Lat: 67.032643409 'N Long: 154.2553307680 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____
Hydric Soil Present?	Yes x	No _____
Wetland Hydrology Present?	Yes x	No _____

Is the Sampled Area within a Wetland? Yes x No _____

Remarks: Sphagnum and black spruce *(Picea mariana)* between broad willow *(Salix sp.)* shallow drainages.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
	Total Cover:	5		
	50% of total cover: 2.5	20% of total cover: 1		

Sapling/Shrub Stratum				
1. betnan	Betula nana	10	Yes	FAC
2. ledgro	Ledum groenlandicum	15	Yes	FACW
3. vaculi	Vaccinium uliginosum	10	Yes	FAC
4. vacvit	Vaccinium vitis-idaea	3	No	FAC
5. picmar	Picea mariana	3	No	FACW
6.				
	Total Cover:	41		
	50% of total cover: 20.5	20% of total cover: 8.2		

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0	20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 10

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	23	x 2 =	46
FAC species	23	x 3 =	69
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	46 (A)		115 (B)

Prevalence Index = B/A = 2.50

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum, (75%), pixie cup lichen (10%).

SOIL

Sampling Point: 196

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2								organic
2-22	gley 2 4/5PB						clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
X Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes x ____ No _____ Depth (inches): 0-6
Water Table Present? Yes x ____ No _____ Depth (inches): 1
Saturation Present? (includes capillary fringe) Yes x ____ No _____ Depth (inches): surface

Wetland Hydrology Present? Yes x ____ No _____

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

Remarks:

Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 197

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): Toe of slope

Local relief (concave, convex, none): concave Slope (%): 5-8

Subregion: Interior Alaska Lat: 67.0313587404 'N Long: 154.2529582610 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No x

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks: Extremely high water period.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover:		2.5	20% of total cover:	1

Sapling/Shrub Stratum				
1. betnan	Betula nana	30	Yes	FAC
2. picmar	Picea mariana	3	No	FACW
3. ledgro	Ledum groenlandicum	20	Yes	FACW
4. vaculi	Vaccinium uliginosum	20	Yes	FAC
5.				
6.				
Total Cover:		73		
50% of total cover:		36.5	20% of total cover:	14.6

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0

Plot size (radius, or length x width) 15 foot radius % Bare Ground 20

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 60
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	28	x 2 =	56
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	78 (A)		206 (B)

Prevalence Index = B/A = 2.64

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum (60%).

SOIL

Sampling Point: 197

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8								organic
8-20	gley 2 4/5PB						clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
X Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 20

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X Surface Water (A1)
X High Water Table (A2)
___ Saturation (A3)
X Water Marks (B1)
X Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes x No ___ Depth (inches): 1
Water Table Present? Yes x No ___ Depth (inches): 16
Saturation Present? (includes capillary fringe) Yes x No ___ Depth (inches): 8

Wetland Hydrology Present? Yes x No ___

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

Remarks:

Shallow areas of exposed sandy clay with surface flow.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 198

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): concave Slope (%): 30

Subregion: Interior Alaska Lat: 67.0301302680 'N Long: 154.250569797 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2. betneo	Betula neoalaskana	5	Yes	FACU
3.				
4.				
	Total Cover:	10		
	50% of total cover: 5	20% of total cover: 2		

Sapling/Shrub Stratum				
1. betneo	Betula neoalaskana	5	No	FACU
2. betnan	Betula nana	10	No	FAC
3. vaculi	Vaccinium uliginosum	20	Yes	FAC
4. salsp.	Salix sp.	5	No	FACW
5. alnvir	Alnus viridis	5	No	FAC
6. ledgro	Ledum groenlandicum	20	Yes	FACW
	Total Cover:	65		
	50% of total cover: 32.5	20% of total cover: 13		

Herb Stratum				
1. erivag	Eriophorum vaginatum	10	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	10		
	50% of total cover: 5	20% of total cover: 2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 60

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	35	x 3 =	105
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	85 (A)		225 (B)

Prevalence Index = B/A = 2.65

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: reindeer lichen (5%), pixie cup lichen (5%), club moss (20%), sphagnum (60%).

SOIL

Sampling Point: 198

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8								organic
8-22	10yr 4/2						loam with organics	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>22___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>22___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 199

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): lowland

Local relief (concave, convex, none): concave Slope (%): _____

Subregion: Interior Alaska Lat: 67.04496794970 'N Long: 154.1727119480 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	3	Yes	FACW
2.				
3.				
4.				
	Total Cover:	3		
	50% of total cover: 1.5	20% of total cover: 0.6		

Sapling/Shrub Stratum				
1. betnan	Betula nana	30	Yes	FAC
2. spiste	Spiraea stevenii	15	No	FAC
3. salsp.	Salix sp.	20	No	FACW
4. ledgro	Ledum groenlandicum	20	No	FACW
5. vaculi	Vaccinium uliginosum	15	No	FAC
6. vacvit	Vaccinium vitis-idaea	5	No	FAC
	Total Cover:	105		
	50% of total cover: 52.5	20% of total cover: 21		

Herb Stratum				
1. erivag	Eriophorum vaginatum	15	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	15		
	50% of total cover: 7.5	20% of total cover: 3		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 10

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 60
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	58	x 2 =	116
FAC species	65	x 3 =	195
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	123 (A)		311 (B)

Prevalence Index = B/A = 2.53

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
NI species: sphagnum (60%).

SOIL

Sampling Point: 199

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3								organic
3-16	10yr 3/1	85	10yr 3/6	15			clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
X Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes X No ____ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 3

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 202

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): convex Slope (%): 8

Subregion: Interior Alaska Lat: 67.042732833 'N Long: 154.172674537 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2.				
3.				
4.				
	Total Cover:	15		
	50% of total cover: 7.5	20% of total cover: 3		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	40	Yes	FACW
2. betnan	Betula nana	15	No	FAC
3. picmar	Picea mariana	5	No	FACW
4. ledgro	Ledum groenlandicum	15	No	FACW
5. vaculi	Vaccinium uliginosum	10	No	FAC
6. vacvit	Vaccinium vitis-idaea	5	No	FAC
	Total Cover:	90		
	50% of total cover: 45	20% of total cover: 18		

Herb Stratum				
1. erivag	Eriophorum vaginatum	45	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	45		
	50% of total cover: 22.5	20% of total cover: 9		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 70

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	120	x 2 =	240
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	150 (A)		330 (B)

Prevalence Index = B/A = 2.20

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: sphagnum (60%), reindeer lichen (10%).

SOIL

Sampling Point: 202

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6								organic
6-22	7.5yr 3/1	85	7.5yr 4/3	15			clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___x___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___x___ Drainage Patterns (B10)
___x___ Oxidized Rhizospheres along Living Roots (C3)
___x___ 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)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___x___ No _____ Depth (inches): ___7___

Wetland Hydrology Present? Yes ___x___ No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 203

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): concave Slope (%): 10

Subregion: Interior Alaska Lat: 67.04061665 'N Long: 154.1710766790 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks: Sampling location is representative of south half of the corridor.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	20	Yes	FACW
2.				
3.				
4.				
	Total Cover:	20		
	50% of total cover: 10	20% of total cover: 4		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	20	Yes	FACW
2. betnan	Betula nana	10	No	FAC
3. vaculi	Vaccinium uliginosum	10	No	FAC
4. ledgro	Ledum groenlandicum	5	No	FACW
5. vacvit	Vaccinium vitis-idaea	5	No	FAC
6. rubcha	Rubus chamaemorus	3	No	FACW
	Total Cover:	53		
	50% of total cover: 26.5	20% of total cover: 10.6		

Herb Stratum				
1. erivag	Eriophorum vaginatum	35	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	35		
	50% of total cover: 17.5	20% of total cover: 7		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 70

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	83	x 2 =	166
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	108 (A)		241 (B)

Prevalence Index = B/A = 2.23

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum (70%), reindeer lichen (15%). Sphagnum floor supports shrub and *Salix* drainage features

SOIL

Sampling Point: 203

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								organic
6-12	10yr 3/1	90	10yr 3/6	10			clay w/gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
X Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Gravel
Depth (inches): 12

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes X No ___ Depth (inches): 8
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 6

Wetland Hydrology Present? Yes X No ___

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 204

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside/lichen knoll

Local relief (concave, convex, none): convex Slope (%): 8-12

Subregion: Interior Alaska Lat: 67.0401531180 'N Long: 154.0505623510 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: Series of lichen knolls rolling across the landscape.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	15	Yes	FACW
2. picgla	Picea glauca	5	Yes	FACU
3. poptre	Populus tremuloides	5	Yes	FACU
4.				
Total Cover:		25		
50% of total cover:		12.5	20% of total cover:	5

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	5	No	FACW
2. ledgro	Ledum groenlandicum	83	Yes	FACW
3. vaculi	Vaccinium uliginosum	83	Yes	FAC
4. betnan	Betula nana	3	No	FAC
5.				
6.				
Total Cover:		174		
50% of total cover:		87	20% of total cover:	34.8

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		0		
50% of total cover:		0	20% of total cover:	0

Plot size (radius, or length x width) 15 foot radius % Bare Ground 5

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 70
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	103	x 2 =	206
FAC species	86	x 3 =	258
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	199 (A)		504 (B)

Prevalence Index = B/A = 2.53

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: *Cladina stellaris* (70%).

SOIL

Sampling Point: 204

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	7.5yr 4/1						granular sand	
2-8	5yr 4/3						granular sand w/ gravel	
8-24	7.5yr 3/4	60	7.5yr 5/4	40			polychromatic matrix	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>24___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>24___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/1/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 205

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): low terrace

Local relief (concave, convex, none): concave Slope (%): 4

Subregion: Interior Alaska Lat: 67.03672260740 'N Long: 154.0520057830 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks: Sphagnum located in between low bogs and lichen knolls.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	25	Yes	FACW
2.				
3.				
4.				
	Total Cover:	25		
	50% of total cover: 12.5	20% of total cover: 5		

Sapling/Shrub Stratum				
1. vaculi	Vaccinium uliginosum	15	Yes	FAC
2. picmar	Picea mariana	20	Yes	FACW
3. vacvit	Vaccinium vitis-idaea	5	No	FAC
4. ledgro	Ledum groenlandicum	10	No	FACW
5. rubcha	Rubus chamaemorus	5	No	FACW
6.				
	Total Cover:	55		
	50% of total cover: 27.5	20% of total cover: 11		

Herb Stratum				
1. erivag	Eriophorum vaginatum	10	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	10		
	50% of total cover: 5	20% of total cover: 2		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		200 (B)

Prevalence Index = B/A = 2.22

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum (50%), *Cladina stellaris* (10%), club moss (10%), pixie cup lichen (10%).

SOIL

Sampling Point: 205

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								organic
6-22	10yr 2/2							organic peat

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
X Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes X No ____ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 6

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 206-2

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): convex Slope (%): 5

Subregion: Interior Alaska Lat: 67.0360548830 'N Long: 154.052688849 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
	Total Cover:	5		
	50% of total cover: 2.5	20% of total cover: 1		

Sapling/Shrub Stratum				
1. betnan	Betula nana	3	No	FAC
2. vaculi	Vaccinium uliginosum	10	Yes	FAC
3. ledgro	Ledum groenlandicum	15	Yes	FACW
4. vacvit	Vaccinium vitis-idaea	3	No	FAC
5.				
6.				
	Total Cover:	31		
	50% of total cover: 15.5	20% of total cover: 6.2		

Herb Stratum				
1. erivag	Eriophorum vaginatum	30	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	30		
	50% of total cover: 15	20% of total cover: 6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 80

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	16	x 3 =	48
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	66 (A)		148 (B)

Prevalence Index = B/A = 2.24

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: sphagnum (80%), leaf lichen (5%), reindeer lichen (5%). *Eriophorum/sphagnum* tussocks.

SOIL

Sampling Point: 206-2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								organic
6-12	10yr 2/1						organics w/clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
X Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X Surface Water (A1)
X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X ____ No _____ Depth (inches): _____
Water Table Present? Yes X ____ No _____ Depth (inches): 6
Saturation Present? (includes capillary fringe) Yes X ____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X ____ No _____

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

Remarks:

Surface water in tussock depressions. Saturation present below sphagnum.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 207

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): concave Slope (%): 3-5

Subregion: Interior Alaska Lat: 66.89402667120 'N Long: 154.4688206960 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	1	Yes	FACW
2.				
3.				
4.				
	Total Cover:	1		
	50% of total cover: 0.5	20% of total cover: 0.2		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	3	Yes	FACW
2. betnan	Betula nana	3	Yes	FAC
3. ledgro	Ledum groenlandicum	1	No	FACW
4. vaculi	Vaccinium uliginosum	1	No	FAC
5.				
6.				
	Total Cover:	8		
	50% of total cover: 4	20% of total cover: 1.6		

Herb Stratum				
1. erivag	Eriophorum vaginatum	60	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	60		
	50% of total cover: 30	20% of total cover: 12		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 10

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 75
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	65	x 2 =	130
FAC species	4	x 3 =	12
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	69 (A)		142 (B)

Prevalence Index = B/A = 2.06

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: sphagnu, (75%), *Cladina stellaris* (5%). Moderate tussocks 18-24" with dense sphagnum.

SOIL

Sampling Point: 207

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								organic
6-21	10yr 2/1						clay/organics	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
_x_ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Permafrost
Depth (inches): 21

Hydric Soil Present? Yes _x_ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
_x_ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ___ No _x_ Depth (inches): ___
Water Table Present? Yes _x_ No ___ Depth (inches): 14
Saturation Present? (includes capillary fringe) Yes _x_ No ___ Depth (inches): 6

Wetland Hydrology Present? Yes _x_ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 208

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): high lichen knoll

Local relief (concave, convex, none): convex Slope (%): 8

Subregion: Interior Alaska Lat: 66.894544089 'N Long: 154.469380877 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: High lichen knoll above sphagnum bogs and small emergent marshes.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. Picmar	Picea mariana	10	Yes	FACW
2.				
3.				
4.				
	Total Cover:	10		
	50% of total cover:	5	20% of total cover:	2

Sapling/Shrub Stratum				
1. empnig	Empetrum nigrum	5	Yes	FAC
2. ledgro	Ledum groenlandicum	3	Yes	FACW
3. betnan	Betula nana	1	No	FAC
4. vacvit	Vaccinium vitis-idaea	3	Yes	FAC
5.				
6.				
	Total Cover:	12		
	50% of total cover:	6	20% of total cover:	2.4

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover:	0	20% of total cover:	0

Plot size (radius, or length x width) 15 foot radius % Bare Ground 5

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 85
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	13	x 2 =	26
FAC species	9	x 3 =	27
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	22 (A)		53 (B)

Prevalence Index = B/A = 2.41

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species reindeer lichen (85%).

SOIL

Sampling Point: 208

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-24	2.5y 4/3						granular loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>24___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>24___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 210

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): concave Slope (%): _____

Subregion: Interior Alaska Lat: 66.8972228098 'N Long: 154.470661388 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
	Total Cover:	5		
	50% of total cover: 2.5	20% of total cover: 1		

Sapling/Shrub Stratum				
1. betnan	Betula nana	10	Yes	FAC
2. vaculi	Vaccinium uliginosum	5	Yes	FAC
3. ledgro	Ledum groenlandicum	5	Yes	FACW
4. vacvit	Vaccinium vitis-idaea	5	Yes	FAC
5.				
6.				
	Total Cover:	25		
	50% of total cover: 12.5	20% of total cover: 5		

Herb Stratum				
1. erivag	Eriophorum vaginatum	45	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	45		
	50% of total cover: 22.5	20% of total cover: 9		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 85

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	55	x 2 =	110
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		170 (B)

Prevalence Index = B/A = 2.27

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: sphagnum (85%), reindeer lichen (10%), leaf lichen (10%)

SOIL

Sampling Point: 210

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8								saturated organics
8-16	10yr 2/1						clay w/ organics	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
X Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X Surface Water (A1)
X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes X ____ No _____ Depth (inches): _____

Water Table Present? Yes X ____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X ____ No _____

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

Remarks:

Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 211

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): convex Slope (%): 25

Subregion: Interior Alaska Lat: 66.85956718540 'N Long: _____ Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: North end of transect 42 atop a high hillside.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	10	Yes	FACW
2.				
3.				
4.				
	Total Cover:	10		
	50% of total cover: 5	20% of total cover: 2		

Sapling/Shrub Stratum				
1. alnvir	Alnus viridis	15	Yes	FAC
2. ledgro	Ledum groenlandicum	25	Yes	FACW
3. vaculi	Vaccinium uliginosum	15	Yes	FAC
4. picmar	Picea mariana	3	No	FACW
5. vacvit	Vaccinium vitis-idaea	3	No	FAC
6.				
	Total Cover:	61		
	50% of total cover: 30.5	20% of total cover: 12.2		

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0	20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 60

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	38	x 2 =	76
FAC species	33	x 3 =	99
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	71 (A)		175 (B)

Prevalence Index = B/A = 2.46

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum (60%), lichen (15%).

SOIL

Sampling Point: 211

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4								organic
4-16	10yr 3/1							clay/organics with gravel & coarse woody debris

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Gravel
Depth (inches): 16

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >16
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): >16

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 212

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside/terrace

Local relief (concave, convex, none): concave Slope (%): 2-8

Subregion: Interior Alaska Lat: 66.8594221294 'N Long: 154.411729701 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
	Total Cover:	5		
	50% of total cover: 2.5	20% of total cover: 1		

Sapling/Shrub Stratum				
1. betnan	Betula nana	10	Yes	FAC
2. myrgal	Myrica gale	5	No	OBL
3. vaculi	Vaccinium uliginosum	5	No	FAC
4. rubcha	Rubus chamaemorus	3	No	FACW
5. alnvir	Alnus viridis	5	No	FAC
6. salsp.	Salix sp.	10	Yes	FACW
	Total Cover:	38		
	50% of total cover: 19	20% of total cover: 7.6		

Herb Stratum				
1. carnor	Carex norvegica	60	Yes	FACW
2. erivag	Eriophorum vaginatum	20	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	80		
	50% of total cover: 40	20% of total cover: 16		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes 65

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 125% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	98	x 2 =	196
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	123 (A)		261 (B)

Prevalence Index = B/A = 2.12

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: sphagnum (65%). Tussocky terrace with relatively open canopy.

SOIL

Sampling Point: 212

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6								organic
>6	10yr 3/1						clay with saturated organics	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- X Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No ____

Remarks:

Thick layers of organic material observed at sample point

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ 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)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): _____
Water Table Present?	Yes X	No ____	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): _____

Wetland Hydrology Present? Yes X ____ No ____

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

Remarks:

Surface water observed in between tussocks, saturation and water table observed just below the surface.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 214

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.88828298280 'N Long: 154.713540075 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: High area adjacent to marsh.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	5	Yes	FACW
2.				
3.				
4.				
Total Cover:		5		
50% of total cover:		2.5	20% of total cover:	1

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	No	FACW
2. vaculi	Vaccinium uliginosum	20	Yes	FAC
3. ledgro	Ledum groenlandicum	10	No	FACW
4. vacvit	Vaccinium vitis-idaea	5	No	FAC
5. salsp.	Salix sp.	10	No	FACW
6. empnig	Empetrum nigrum	10	No	FAC
Total Cover:		65		
50% of total cover:		32.5	20% of total cover:	13

Herb Stratum				
1. lycann	Lycopodium annotinum	10	Yes	FACU
2. carnor	Carex norvegica	5	Yes	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Cover:		15		
50% of total cover:		7.5	20% of total cover:	3

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	35	x 3 =	105
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	85 (A)		225 (B)

Prevalence Index = B/A = 2.65

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: NI species: grey lichen (5%), sphagnum (30%), club moss (5%),

SOIL

Sampling Point: 214

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4								organic
4-16	10yr 5/4	95	10yr 5/1	5			clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

Small depression of standing water. Saturation observed just under the sphagnum. Mosaic.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation * Public Facilities - Northern Region Sampling Point: 216

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): convex Slope (%): 5

Subregion: Interior Alaska Lat: 66.887627397 'N Long: 154.713363522 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	10	Yes	FACW
2.				
3.				
4.				
	Total Cover:	10		
	50% of total cover:	5	20% of total cover:	2

Sapling/Shrub Stratum				
1. betnan	Betula nana	25	Yes	FAC
2. empnig	Empetrum nigrum	15	Yes	FAC
3. vaculi	Vaccinium uliginosum	10	No	FAC
4. ledgro	Ledum groenlandicum	5	No	FACW
5. vacvit	Vaccinium vitis-idaea	5	No	FAC
6. poptre	Populus tremuloides	5	No	FACU
	Total Cover:	65		
	50% of total cover:	32.5	20% of total cover:	13

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover:	0	20% of total cover:	0

Plot size (radius, or length x width) 15 foot radius % Bare Ground 20

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 30
(Where applicable)

Dominance Test worksheet:

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 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	55	x 3 =	165
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	75 (A)		215 (B)

Prevalence Index = B/A = 2.87

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:
NI species: lichen (15%), sphagnum (5%)

SOIL

Sampling Point: 216

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-1								lichen mat
1-4	10yr 3/2						organics w/ clay	
4-18	10yr 5/4						clay loam w/ gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol or Histel (A1)
- ___ Histic Epipedon (A2)
- ___ Hydrogen Sulfide (A4)
- ___ Thick Dark Surface (A12)
- ___ Alaska Gleyed (A13)
- ___ Alaska Redox (A14)
- ___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

- ___ Alaska Color Change (TA4)[4]
- ___ Alaska Alpine Swales (TA5)
- ___ Alaska Redox With 2.5Y Hue
- ___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: Gravel

Depth (inches): 18

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ 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)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-stained Leaves (B9)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- x FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____

Water Table Present? Yes _____ No x Depth (inches): >18

Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): >18

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 222

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): concave Slope (%): 0

Subregion: Interior Alaska Lat: 66.90212957980 'N Long: 154.8542646210 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes x No _____
Hydric Soil Present?	Yes x	No _____	
Wetland Hydrology Present?	Yes x	No _____	

Remarks: *Eriophorum vaginatum* marsh with sphagnum and *Picea mariana edge* s.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	10	Yes	FACW
2.				
3.				
4.				
	Total Cover:	10		
	50% of total cover: 5	20% of total cover: 2		

Sapling/Shrub Stratum				
1. picamr		5	No	
2. ledgro	Ledum groenlandicum	20	Yes	FACW
3. vaculi	Vaccinium uliginosum	10	Yes	FAC
4. myrgal	Myrica gale	10	Yes	OBL
5. rubcha	Rubus chamaemorus	3	No	FACW
6.				
	Total Cover:	48		
	50% of total cover: 24	20% of total cover: 9.6		

Herb Stratum				
1. erivag	Eriophorum vaginatum	35	Yes	FACW
2. calcan	Calamagrostis canadensis	10	Yes	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	45		
	50% of total cover: 22.5	20% of total cover: 9		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 15

% Cover of Wetland Bryophytes 45 (Where applicable) Total Cover of Bryophytes _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	68	x 2 =	136
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	98 (A)		206 (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum and club moss. Open water (15%)

SOIL

Sampling Point: 222

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X ____ No _____

Remarks:

Standing water observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

X 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes x ____ No _____ Depth (inches): 8

Water Table Present? Yes _____ No _____ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): 0

Wetland Hydrology Present? Yes x ____ No _____

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

Remarks:

Surface water observed at sample location. Wetland hydrology observed at sample point.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 223

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): low slope

Local relief (concave, convex, none): convex Slope (%): _____

Subregion: Interior Alaska Lat: 66.9022988269 'N Long: 154.85215035800 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks: Upland hummocks adjacent to emergent marsh.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	10	Yes	FACW
2.				
3.				
4.				
	Total Cover:	10		
	50% of total cover: 5	20% of total cover: 2		

Sapling/Shrub Stratum				
1. picmar	Picea mariana	5	No	FACW
2. ledgro	Ledum groenlandicum	10	Yes	FACW
3. vaculi	Vaccinium uliginosum	10	Yes	FAC
4. empnig	Empetrum nigrum	5	No	FAC
5. vacvit	Vaccinium vitis-idaea	5	No	FAC
6. rubcha	Rubus chamaemorus	3	No	FACW
	Total Cover:	38		
	50% of total cover: 19	20% of total cover: 7.6		

Herb Stratum				
1. carnor	Carex norvegica	25	Yes	FACW
2. erivag	Eriophorum vaginatum	5	No	FACW
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	30		
	50% of total cover: 15	20% of total cover: 6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	58	x 2 =	116
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	78 (A)		176 (B)

Prevalence Index = B/A = 2.26

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks: NI species: sphagnum and lichen.

SOIL

Sampling Point: 223

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3								organic
3-18	10yr 3/2						gravely clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Gravel
Depth (inches): 18

Hydric Soil Present? Yes _____ No x

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
x Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): >18
Saturation Present? (includes capillary fringe) Yes x No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No x

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

Remarks:

Saturation observed only in narrow band below sphagnum. Surface cracks in the soils were observed.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 224

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): hillside

Local relief (concave, convex, none): convex Slope (%): _____

Subregion: Interior Alaska Lat: 66.90237841030 'N Long: 154.849785899 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: A small rise in the general landscape is observed.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. poptre	Populus tremuloides	35	Yes	FACU
2. picmar	Picea mariana	15	Yes	FACW
3.				
4.				
	Total Cover:	50		
	50% of total cover:	25	20% of total cover:	10

Sapling/Shrub Stratum				
1. picmar	Picea mariana	10	Yes	FACW
2. vaculi	Vaccinium uliginosum	10	Yes	FAC
3. empnig	Empetrum nigrum	10	Yes	FAC
4. vacvit	Vaccinium vitis-idaea	5	No	FAC
5. salsp.	Salix sp.	5	No	FACW
6. ledgro	Ledum groenlandicum	5	No	FACW
	Total Cover:	45		
	50% of total cover:	22.5	20% of total cover:	9

Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover:	0	20% of total cover:	0

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	25	x 3 =	75
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	95 (A)		285 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: NI species: leaf lichen (5%), pixie cup lichen (5%), club moss (10%).

SOIL

Sampling Point: 224

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2								lichen/moss mat
2-14	2.5y 4/3						clay w/ gravel	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):
Type: Gravel/rocks
Depth (inches): 14

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Salt Deposits (C5)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
x__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____
Water Table Present? Yes _____ No ___x___ Depth (inches): ___>14___
Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>14___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 225

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): gentle hillside

Local relief (concave, convex, none): none Slope (%): _____

Subregion: Interior Alaska Lat: 66.9033749551 'N Long: 154.846483985 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. poptre	Populus tremuloides	20	Yes	FACU
2. picmar	Picea mariana	5	Yes	FACW
3.				
4.				
	Total Cover:	25		
	50% of total cover: 12.5	20% of total cover: 5		
Sapling/Shrub Stratum				
1. picmar	Picea mariana	30	Yes	FACW
2. empnig	Empetrum nigrum	5	No	FAC
3. poptre	Populus tremuloides	3	No	FACU
4.				
5.				
6.				
	Total Cover:	38		
	50% of total cover: 19	20% of total cover: 7.6		
Herb Stratum				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	0		
	50% of total cover: 0	20% of total cover: 0		

Plot size (radius, or length x width) 15 foot radius % Bare Ground 55

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes 5
(Where applicable)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	5	x 3 =	15
FACU species	23	x 4 =	92
UPL species	0	x 5 =	0
Column Totals:	63 (A)		177 (B)

Prevalence Index = B/A = 2.81

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

NI species: leaf lichen (3%), club moss (3%). Leaf litter present in a dense *Picea mariana* area.

SOIL

Sampling Point: 225

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3								detritus
3-20	2.5y 4/3						clay loan w/ organics	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
___ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ___x___

Remarks:

No indications of hydric soil observed at sample location.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ 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)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes _____ No ___x___ Depth (inches): _____

Water Table Present? Yes _____ No ___x___ Depth (inches): ___>20___

Saturation Present? (includes capillary fringe) Yes _____ No ___x___ Depth (inches): ___>20___

Wetland Hydrology Present? Yes _____ No ___x___

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

Remarks:

No field indication of wetland hydrology.

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Ambler Mining District Access Borough/City: Northwest Arctic Sampling Date: 9/2/2012

Applicant/Owner: Alaska Department of Transportation & Public Facilities - Northern Region Sampling Point: 227

Investigator(s): JC, CF Landform (hillside, terrace, hummocks, etc.): _____

Local relief (concave, convex, none): _____ Slope (%): _____

Subregion: Interior Alaska Lat: 66.88649737690 'N Long: 154.8310790810 'W Datum: NAD83

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____
Hydric Soil Present?	Yes X	No _____
Wetland Hydrology Present?	Yes X	No _____

Is the Sampled Area within a Wetland? Yes X No _____

Remarks: Gravel bar at the Reed River crossing.

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. picmar	Picea mariana	10	Yes	FACW
2.				
3.				
4.				
	Total Cover:	10		
	50% of total cover: 5	20% of total cover: 2		

Sapling/Shrub Stratum				
1. salsp.	Salix sp.	15	Yes	FACW
2. myrgal	Myrica gale	10	Yes	OBL
3. alnvir	Alnus viridis	5	No	FAC
4. rosaci	Rosa acicularis	5	No	FACU
5. dasfru	Dasiphora fruticosa	5	No	FAC
6. popbal	Populus balsamifera	10	Yes	FACU
	Total Cover:	50		
	50% of total cover: 25	20% of total cover: 10		

Herb Stratum				
1. calcan	Calamagrostis canadensis	10	Yes	FAC
2. chaang	Chamerion angustifolium	3	Yes	FACU
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover:	13		
	50% of total cover: 6.5	20% of total cover: 2.6		

Plot size (radius, or length x width) 15 foot radius % Bare Ground _____

% Cover of Wetland Bryophytes _____ (Where applicable) Total Cover of Bryophytes _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	25	x 2 =	50
FAC species	20	x 3 =	60
FACU species	18	x 4 =	72
UPL species	0	x 5 =	0
Column Totals:	73 (A)		192 (B)

Prevalence Index = B/A = 2.63

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%

Y Prevalence Index is ≤3.0

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 227

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol or Histel (A1)
___ Histic Epipedon (A2)
___ Hydrogen Sulfide (A4)
___ Thick Dark Surface (A12)
___ Alaska Gleyed (A13)
___ Alaska Redox (A14)
___ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils[3]:

___ Alaska Color Change (TA4)[4]
___ Alaska Alpine Swales (TA5)
___ Alaska Redox With 2.5Y Hue
___ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
_X_ Other (Explain in Remarks)

[3]One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
[4]Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _X_ No ___

Remarks:

Multiple primary hydrological indicators were observed. No sample pit dug.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
_X_ High Water Table (A2)
___ Saturation (A3)
_X_ Water Marks (B1)
_X_ Sediment Deposits (B2)
_X_ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water-stained Leaves (B9)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres along Living Roots (C3)
___ 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)

Field Observations:

Surface Water Present? Yes ___ No _X_ Depth (inches): _____

Water Table Present? Yes _X_ No ___ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _X_ No ___ Depth (inches): _____

Wetland Hydrology Present? Yes _X_ No ___

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

Remarks:

Saturation observed at sample point. Wetland hydrology observed at sample point.