

Attachment X.VIII. Fish Habitat

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Table X.VIII-1
Summary of Habitat Information for Lakes in the Kiggavik Project Area

Watershed	Sub-Basin	Waterbody	Source	Drainage Area (km ²) ^(a)	Surface Area (ha) ^(b)	Maximum Depth (m) ^(c)	Mean Depth (m) ^(d)	Total Volume (m ³) ^(e)	Ice Thickness (May 09) (m)	Main Shoreline Perimeter (m) ^(a)	Shoreline Development ^(e)	Fish Observed/Captured (BEAK; McLeod et al. 1976; 2007 to 2010)	Substrate	Habitat Assessment
Aniguq River	Willow Lake	Meadow Lake	BEAK 1990	1.2	14.0	2.0	0.8	1.12E+05	-	1,507	1.1	none	no data	no data
		Felsenmeer Lake	BEAK 1990	1.3	20.8	6.0	2.0	4.16E+05	-	2,030	1.3	Arctic grayling; lake trout; round whitefish	no data	no data
		Escarpment Lake	BEAK 1990	2.7	12.7	8.0	2.2	2.79E+05	-	1,798	1.4	Arctic grayling; lake trout; round whitefish	no data	no data
		Drum Lake	BEAK 1990	5.6	25.0	2.0	1.3	3.25E+05	-	2,481	1.4	Arctic grayling	no data	no data
		Lin Lake	BEAK 1990	7.2	48.0	2.0	1.3	6.24E+05	-	3,016	1.2	Arctic grayling	no data	no data
		Scotch Lake	BEAK 1990	11.7	195	6.0	3.6	7.02E+06	-	7,645	1.5	lake trout; ninespine stickleback; round whitefish; slimy sculpin	no data	no data
		Jaegar Lake	BEAK 1987b	50.4	281	4.0	1.6	4.50E+06	-	13,339	2.2	Arctic grayling	no data	no data
		Pointer Pond	2010	-	3.09	4.5	1.5	44,831	-	815	1.3	no fish observed or captured in pond; slimy sculpin captured in the stream immediately upstream	boulder/cobble	shoreline vegetation was predominantly grasses and low shrubs with areas bare or with moss, backed by tundra; shoreline slope varied from flat to moderately steep; cover consisted primarily of interstitial space in coarse substrate and inundated vegetation, with emergent and submergent vegetation also present
		Pointer Lake	2007	79.0	393	3.0	1.4	5.46E+06	-	11,756	1.7	Arctic grayling; lake cisco; lake trout; ninespine stickleback	cobble/boulder	shoreline vegetation predominantly grasses and low shrubs, backed by tundra; predominantly had a flat slope; exposed boulders present; emergent vegetation present
		Sik Sik Lake	2009	1.8	17.5	1.7	0.9	1.63E+05	2.0 ^(g)	2,155	1.5	ninespine stickleback	boulder/cobble	shoreline vegetation predominantly grasses and low shrubs, backed by tundra; predominantly had a flat slope; exposed boulders present; inundated vegetation present
		Rock Lake	2008	99.2	32.4	1.5	0.7	2.29E+05	1.5 ^(g)	3,648	1.8	Arctic grayling; lake trout	cobble/boulder	shoreline slope was predominantly flat; shoreline cover consisted primarily of interstitial space in substrate and submergent vegetation; shoreline vegetation was dominated by grass, backed with tundra; secondary shoreline vegetation consisted of low shrubs; areas with boulder fields
		Willow Lake	BEAK 1990	101.9	54.9	2.0	1.4	7.69E+05	2.0 ^(g)	4,321	1.6	Arctic grayling; lake trout; ninespine stickleback	boulder/cobble	shoreline vegetation predominantly grasses and low shrubs, backed by tundra; predominantly had a flat slope; exposed boulders present
	Lower Lake	Mushroom Lake	2009	4.4	32.0	8.9	1.9	6.05E+05	2.0	3,416	1.7	Arctic grayling; lake cisco; lake trout; round whitefish	cobble/boulder	shoreline slope was predominantly flat with an area of moderate to moderately steep; shoreline cover consisted primarily of interstitial space in substrate; shoreline vegetation was dominated by grass, backed with tundra; areas of exposed boulders and sand beach present
		Pond 1	2010	-	9.94	1.5	0.7	70,589	-	1,897	1.7	no fish observed or captured	sand/boulder	shoreline vegetation was predominantly grasses and low shrubs, backed by tundra; flat shoreline slope; cover consisted of interstitial space in coarse substrate and emergent vegetation
		Pond 2	2010	-	6.56	1.2	0.6	38,683	-	1,348	1.5	no fish observed or captured	sand/boulder	shoreline vegetation was predominantly grasses and low shrubs, backed by tundra; flat shoreline slope; exposed boulders present; cover consisted of inundated vegetation, emergent vegetation, and interstitial space in coarse substrate
		Pond 3	2010	-	0.26	0.5	0.3	762	-	245	1.3	no fish observed or captured	silt/sand (permafrost at 0.5 m)	shoreline vegetation was predominantly grasses and low shrubs, backed by tundra; flat shoreline slope; cover consisted of emergent vegetation and interstitial space in coarse substrate

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Summary of Habitat Information for Lakes in the Kiggavik Project Area

Watershed	Sub-Basin	Waterbody	Source	Drainage Area (km ²) ^(a)	Surface Area (ha) ^(b)	Maximum Depth (m) ^(c)	Mean Depth (m) ^(d)	Total Volume (m ³) ^(e)	Ice Thickness (May 09) (m)	Main Shoreline Perimeter (m) ^(a)	Shoreline Development ^(e)	Fish Observed/Captured (BEAK; McLeod et al. 1976; 2007 to 2010)	Substrate	Habitat Assessment
Aniguq River	Lower Lake	Pond 4	2010	-	0.67	0.7	0.3	1,866	-	354	1.2	no fish observed or captured	silt/cobble	shoreline vegetation was predominantly grasses and low shrubs, backed by tundra; flat shoreline slope; cover consisted primarily of interstitial space in coarse substrate and emergent vegetation.
		Pond 5	2010	-	1.62	1.0	0.4	6,948	-	615	1.4	no fish observed or captured	silt/sand	shoreline vegetation was predominantly grasses and low shrubs, backed by tundra; flat shoreline slope; cover consisted of inundated vegetation, emergent vegetation, and interstitial space in coarse substrate.
		Pond 6	2010	-	1.76	1.2	0.7	11,422	-	636	1.4	no fish observed or captured	silt/sand	shoreline vegetation was predominantly grasses and low shrubs, backed with tundra; flat shoreline slope; cover consisted of inundated vegetation, emergent vegetation, and interstitial space in coarse substrate.
		Pond 7	2010	-	6.53	1.2	0.6	41,770	-	1,102	1.2	no fish observed or captured	sand/boulder	shoreline vegetation was predominantly grasses and low shrubs, backed with tundra; flat shoreline slope; cover consisted primarily of inundated vegetation, emergent vegetation, and interstitial space in coarse substrate.
		Pond 8	2010	-	0.44	0.7	0.4	1,748	-	259	1.1	no fish observed or captured	sand/silt	shoreline vegetation was predominantly grasses and low shrubs, backed with tundra; flat shoreline slope; cover consisted primarily of emergent vegetation and inundated vegetation.
		End Grid Lake	2008	7.1	13.2	1.4	0.8	1.03E+05	-	1,551	1.2	Arctic grayling	sand/organic material/ cobble	shoreline vegetation predominantly grasses, backed by tundra; predominantly had a flat slope; exposed boulders present; inundated vegetation present.
		Smoke Lake	BEAK 1992a	5.6	63.5	1.0	1.3	8.26E+05	-	4,460	1.6	Arctic grayling; lake cisco	no data	no data
		Cigar Lake	BEAK 1992a	11.8	113	3.6	1.5	1.70E+06	-	7,590	2.0	Arctic grayling; burbot; lake cisco; lake trout; round whitefish	cobble/boulder	shoreline slope was predominantly flat with an area of moderate to moderately steep; shoreline cover consisted primarily of interstitial space in substrate; shoreline vegetation was dominated by grass, backed with tundra; areas of exposed boulders and boulder fields present.
		Knee Lake	BEAK 1992a	11.6	34.9	0.8	0.2	6.98E+04	-	3,331	1.6	Arctic grayling	sand/gravel	shoreline slope was predominantly flat with an area of moderate slope; shoreline cover consisted primarily of interstitial space in substrate and inundated vegetation; shoreline vegetation was dominated by grass, backed with tundra; areas of boulder fields and boulder gardens present.
		Lunch Lake	BEAK 1992a	29.6	77.8	1.6	0.6	4.67E+05	-	4,492	1.4	Arctic grayling; lake trout; round whitefish	boulder/silt	shoreline slope was predominantly flat; shoreline cover consisted primarily of interstitial space; shoreline vegetation was dominated by grass, backed with tundra; areas of boulder gardens present.
		Andrew Lake	2009	33.6	54.3	1.0	0.2	9.78E+04	1.0 ^(g)	5,029	1.9	Arctic grayling; burbot; lake cisco; round whitefish	sand/cobble	shoreline vegetation predominantly grasses and low shrubs, backed by tundra; predominantly had a flat slope; exposed boulders present; inundated vegetation present.
		Shack Lake	BEAK 1992a	47.2	60.0	1.6	0.6	3.60E+05	-	4,983	1.8	Arctic grayling	sand/boulder/ cobble	shoreline vegetation predominantly grasses and low shrubs, backed by tundra; predominantly had a flat slope; exposed boulders present; inundated vegetation present.
		Bear Island Lake	BEAK 1992a	9.2	36.5	1.0	0.5	1.83E+05	-	6,365	3.0	Arctic grayling	no data	no data
		Lower Lake	BEAK 1992a	69.0	49.0	1.4	0.4	1.96E+05	-	4,828	1.9	Arctic grayling; burbot; lake cisco; ninespine stickleback; round whitefish	cobble/boulder	shoreline vegetation predominantly grasses, backed by tundra; predominantly had a flat slope; exposed boulders present; inundated vegetation present; channel connecting north and south ends of lake had run and riffle habitat.

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Watershed	Sub-Basin	Waterbody	Source	Drainage Area (km ²) ^(a)	Surface Area (ha) ^(b)	Maximum Depth (m) ^(c)	Mean Depth (m) ^(d)	Total Volume (m ³) ^(e)	Ice Thickness (May 09) (m)	Main Shoreline Perimeter (m) ^(a)	Shoreline Development ^(e)	Fish Observed/Captured (BEAK; McLeod et al. 1976; 2007 to 2010)	Substrate	Habitat Assessment
Aniguq River	Caribou Lake	Ridge Lake	BEAK 1990	2.1	16.7	7.1	2.3	3.84E+05	-	2,643	1.8	lake trout	cobble/boulder	shoreline vegetation was minimal, predominantly cobble/boulder, backed by tundra; predominantly had a flat slope; exposed boulders present
		Cirque Lake	BEAK 1990	0.7	5.6	5.2	2.6	1.46E+05	-	946	1.1	Arctic grayling; ninespine stickleback	cobble/boulder	shoreline vegetation predominantly grasses backed by tundra; predominantly had a flat slope; exposed boulders present
		Crash Lake	BEAK 1990	10.6	8.1	2.0	1.1	8.91E+04	-	1,078	1.1	Arctic grayling	silt/sand/ boulder	shoreline vegetation predominantly grasses and low shrubs, backed by tundra; predominantly had a flat slope; exposed boulders present
		Rhyolite Lake	NTS	0.6	7	no bathymetry	no bathymetry	-	-	1,263	1.3	not sampled	no data	no data
		Fox Lake	BEAK 1990	28.9	128	2.7	1.7	2.18E+06	-	5,194	1.3	Arctic grayling; lake cisco; lake trout; ninespine stickleback	cobble/boulder	shoreline vegetation predominantly grasses, backed by tundra; predominantly had a flat slope; exposed boulders present
		Sleek Lake	NTS	31.8	376	no bathymetry	no bathymetry	-	-	9,429	1.4	not sampled	no data	no data
		Caribou Lake	BEAK 1990	80.9	341	2.7	1.4	4.77E+06	-	14,485	2.2	Arctic grayling; burbot; lake cisco; lake trout; ninespine stickleback; round whitefish	cobble/boulder	Shoreline slope was predominantly flat; shoreline cover consisted primarily of interstitial space in substrate; shoreline vegetation was dominated by grass, backed with tundra; areas of exposed boulders and boulder fields present
		Calf Lake	2008	88.2	35.8	1.2	0.6	2.14E+05	-	2,662	1.3	burbot; lake cisco; ninespine stickleback	cobble/boulder	Shoreline slope was predominantly flat with an area of moderately steep slope; shoreline cover consisted primarily of interstitial space in substrate; shoreline vegetation was dominated by grass and low shrubs, backed with tundra; areas of submergent vegetation present
	Boulder Lake	Boulder Lake	NTS	68.6	478	no bathymetry	no bathymetry	-	-	12,949	1.7	not sampled	no data	no data
	Judge Sissons Lake	Judge Sissons Lake	BEAK 1990, 2009	704.6	9,550	20.6	4.6	4.39E+08	1.8	119,370	3.4	Arctic grayling; burbot; lake cisco; lake trout; ninespine stickleback; round whitefish; slimy sculpin	sand/gravel	Shoreline slope was predominantly flat; shoreline cover consisted primarily of interstitial space in substrate, emergent and submergent vegetation, and inundated vegetation; shoreline vegetation was dominated by grass, backed with tundra; areas of exposed boulders and boulder fields present
	Siamese Lake	Siamese Lake	2008	85.2	2,792	12.0	4.1	1.14E+08	2.1	45,877	2.4	lake trout	boulder/cobble	Shoreline slope was predominantly flat with an area of moderate to moderately steep; shoreline cover consisted primarily of interstitial space in substrate and inundated vegetation; shoreline vegetation was dominated by grass and low shrubs, backed with tundra
	Skinny Lake	Skinny Lake	BEAK 1990	111.7	197	12.8	3.1	6.11E+06	-	12,474	2.5	Arctic grayling; lake cisco; lake trout; round whitefish	no data	no data
	Kavisilik Lake	Kavisilik Lake	BEAK 1990	148.4	564	12.0	4.2	2.37E+07	-	22,034	2.6	Arctic grayling; lake cisco; lake trout; round whitefish	no data	no data
Thelon River	Squiggly Lake	Squiggly Lake	BEAK 1990	41.8	638	17.6	6.0	3.83E+07	-	27,568	3.1	Arctic char; Arctic grayling; burbot; lake trout; round whitefish	no data	no data
Baker Lake	Baker Lake	Baker Lake	NTS, McLeod et al. 1976	-	189,000	no bathymetry	15.0	2.84E+10	-	-	-	Arctic char; Arctic grayling; burbot; fourhorn sculpin; lake cisco; lake trout; lake whitefish; longnose sucker; ninespine stickleback; round whitefish; slimy sculpin	no data	no data
Winter Access Road		Audra Lake	NTS	2,740	9,520	6.8 ^(f)	4.0	3.81E+08	2.0	-	-	not sampled	no data	no data
		L2	NTS	66.9	792.4	8.0 ^(f)	no bathymetry	-	1.8	13,257	1.3	not sampled	no data	no data
		Long Lake	NTS	355.7	614.4	2.5 ^(f)	no bathymetry	-	1.8	23,804	2.7	not sampled	no data	no data
		Qinguq Bay	NTS	465.9	998	4.5 ^(f)	no bathymetry	-	1.8	17,147	1.5	not sampled	no data	no data

^(a) = Estimated from digital NTS coverage.
^(b) = Based on bathymetric data as presented in BEAK (1987b; 1990; 1992a) or McLeod et al. (1976) unless recent bathymetric information was available. If no bathymetry was available at all, value was estimated from digital NTS coverage.
^(c) = Maximum depth is the maximum depth either collected at sampling stations, written on recent bathymetry information available, or shown on bathymetry maps from BEAK (1987b; 1990; 1992a).
^(d) = Based on bathymetric data as presented in BEAK (1987b; 1990; 1992a) or McLeod et al. (1976) unless recent bathymetric information was available.
^(e) = Calculated from available data.
^(f) = Maximum depth is the maximum depth collected at sampling stations during winter sampling session of May 2009. Value was not corrected for ice thickness.
^(g) = Lake frozen to the bottom.
km² = square kilometres; ha = hectares; m = metre; - = not applicable.

Table X.VIII-2
Detailed Stream Habitat information Collected in the Kiggavik Project Area, 2008 and 2010

Sub-Basin	Watercourse	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish < 60 mm	Medium Fish 61-150 mm	Large Fish > 150 mm	
Willow Lake	Northeast Inflow of Pointer Lake	1	NEPLS-wq1	7149280	564951	19	7149249	565059	flat	136	136	0.10	-	-	N	0	0	0	submergent vegetation
		2	19	7149249	565059	97	7149059	565108	run class 3	190	326	0.12	-	0.7	N	0	0	0	submergent vegetation
		3	97	7149059	565108	98	7148936	565120	riffle	118	444	0.13	0.9	0.9	N	5	0	0	submergent vegetation
		4	98	7148936	565120	99	7148394	565028	run class 3	547	991	0.25	0.2	0.2	N	0	0	0	submergent vegetation
		5	99	7148394	565028	100	7148305	565132	riffle/boulder garden	138	1,129	0.40	1.0	1.0	N	40	5	0	submergent vegetation
		6	100	7148305	565132	101	7148206	565273	run class 3/FA	172	1,301	0.60	2.0	2.0	N	10	0	0	submergent vegetation
		7	101	7148206	565273	102	7148095	565447	run class 3	207	1,508	0.20	0.8	0.8	N	0	0	0	submergent vegetation
		8	102	7148095	565447	103	7148053	565545	run class 3	104	1,612	0.20	500	1.1	N	0	0	0	submergent vegetation
		9	103	7148053	565545	104	7148139	565679	run class 3	161	1,773	0.18	300	1.8	N	15	0	0	submergent vegetation
		10	104	7148139	565679	105	7148042	565890	run class 3	233	2,006	0.29	1000	1.2	N	5	0	0	submergent vegetation
		11	105	7148042	565890	107	7147927	565886	run class 3	100	2,106	-	-	1.2	N	30	0	0	submergent vegetation
		12	107	7147927	565886	108	7147871	565883	run class 3	60	2,166	0.50	15.0	3.9	N	10	0	0	submergent vegetation
		13	108	7147871	565883	109	7147771	565927	cascade	108	2,274	0.40	5.1	5.1	N	30	0	0	submergent vegetation
		14	109	7147771	565927	110	7147734	565913	pool class 1	57	2,331	>1.0	6.5	6.5	N	100	90	75	-
		15	110	7147734	565913	111	7147693	565905	run class 3/boulder garden	45	2,376	0.20	15.0	4.0	N	30	0	0	submergent vegetation
		16	111	7147693	565905	112	7147226	565734	run class 3	496	2,872	0.15	15.0	0.9	N	40	0	0	submergent vegetation
		17	112	7147226	565734	114	7147155	565738	flat	75	2,947	0.40	43.9	43.9	N	5	0	0	substrate; submergent vegetation
		18	114	7147155	565738	115	7147025	565725	run class 3	132	3,079	0.25	40.0	1.3	N	15	0	0	substrate; submergent vegetation
		19	115	7147025	565725	116	7146936	565746	run class 3/boulder garden	97	3,176	0.20	40.0	3.9	N	50	5	0	substrate; submergent vegetation
		20	116	7146936	565746	117	7146871	565774	run class 3	71	3,247	0.55	40.0	2.2	N	80	60	10	substrate; submergent vegetation
		21	117	7146871	565774	118	7146790	565801	riffle	87	3,334	0.20	40.0	1.0	N	30	0	0	substrate; submergent vegetation
		22	118	7146790	565801	119	7146627	566031	run class 3	282	3,616	0.20	25.0	1.1	N	5	0	0	substrate; submergent vegetation
		23	119	7146627	566031	120	7146524	566172	run class 3	173	3,789	0.20	40.0	0.9	N	30	5	0	substrate; submergent vegetation
		24	120	7146524	566172	121	7146078	566146	run class 3	454	4,243	0.35	40.0	1.9	N	5	0	0	substrate; submergent vegetation
		25	121	7146078	566146	122	7146013	566134	riffle	67	4,310	0.40	20.0	1.1	N	30	5	0	substrate; submergent vegetation
		26	122	7146013	566134	123	7145577	565874	run class 3	512	4,822	0.20	8.0	-	N	5	0	0	substrate; submergent vegetation
		27	123	7145577	565874	124	7145322	565837	run class 3	256	5,078	0.35	10.0	1.4	N	40	5	0	substrate; submergent vegetation
		28	124	7145322	565837	125	7145294	565839	run class 3	28	5,106	0.22	100	0.9	N	0	0	0	substrate; submergent vegetation
		29	125	7145294	565839	5	7145000	565669	run class 3	319	5,425	0.35	100	0.7	N	5	0	0	substrate; submergent vegetation
		30	5	7145000	565669	1	7144482	565539	run class 3	150	5,575	0.40	75.0	7.0	N	80	40	5	depth/turbidity
	Upper Tributary to the Northeast Inflow of Pointer Lake Stream	1	-	-	-	552	7145782	565136	no defined channel	-	-	-	25	-	N	40	0	0	emergent vegetation
		2	552	7145782	565136	-	-	-	pond	75	75	0.4	100	100	N	20	15	5	substrate; emergent vegetation
		3	-	-	-	550	7145884	565248	no defined channel	75	150	0.4	120	-	N	40	0	0	emergent vegetation
		4	550	7145884	565248	548	7145957	565320	run class 3/riffle	106	256	0.3	6.0	-	N	20	0	0	substrate; emergent vegetation
		5	548	7145957	565320	547	7146025	565361	pond	79	335	0.3	60	60	N	20	15	5	substrate; emergent vegetation
		6	547	7146025	565361	546	7146052	565402	pool class 3	62	397	0.4	15	15	N	20	15	5	substrate; emergent vegetation
		7	546	7146052	565402	545	7146131	565406	riffle/run class 3	83	480	0.4	1.2	0.7	N	50	25	5	substrate; emergent vegetation
		8	545	7146131	565406	544	7146167	565377	riffle/run class 3	50	530	0.3	1.1	1.1	N	50	25	5	substrate; emergent vegetation
		9	544	7146167	565377	543	7146169	565378	pool class 3	2	532	0.6	1.4	1.4	N	60	30	15	substrate; emergent vegetation
		10	543	7146169	565378	542	7146269	565337	riffle/flat	110	642	0.3	3.0	2.0	N	20	15	5	substrate; emergent vegetation
		11	542	7146269	565337	-	-	-	no defined channel	320	962	0.3	20	-	N	20	15	5	substrate; emergent vegetation
		12	-	-	-	540	7146534	565428	pond	20	982	0.4	20	20	N	60	30	15	depth/turbidity
		13	540	7146534	565428	539	7146575	565424	flat	40	1,022	0.4	4.2	1.0	N	60	30	15	emergent vegetation
		14	539	7146575	565424	538	7146578	565421	pool class 3	5	1,027	0.6	2.5	1.5	N	60	30	15	substrate; emergent vegetation
		15	538	7146578	565421	537	7146593	565413	flat	17	1,044	0.2	1.3	1.3	N	60	30	15	substrate; emergent vegetation
		16	537	7146593	565413	536	7146611	565394	run class 3/pool class 3	25	1,069	0.6	0.9	0.7	N	50	25	5	substrate; emergent vegetation
		17	536	7146611	565394	535	7146616	565391	pool class 3	6	1,075	0.5	1.0	1.0	N	60	30	15	substrate; emergent vegetation
		18	535	7146616	565391	534	7146638	565379	riffle/run class 3	25	1,100	0.2	0.6	0.6	N	50	25	5	substrate; emergent vegetation
		19	534	7146638	565379	533	7146685	565355	run class 3/pool class 3	53	1,153	0.5	1.1	1.1	N	60	30	15	substrate; emergent vegetation
		20	533	7146685	565355	532	7146688	565353	pool class 3	4	1,157	0.6	1.3	1.0	N	60	60	60	depth/turbidity
		21	532	7146688	565353	531	7146728	565341	run class 3/flat	41	1,198	0.3	1.3	1.3	N	20	15	5	substrate; emergent vegetation
		22	531	7146728	565341	530	7146729	565337	pool class 3	4	1,202	0.9	2.3	1.3	N	40	60	60	depth/turbidity; emergent vegetation
		23	530	7146729	565337	529	7146747	565331	run class 3/riffle	19	1,221	0.3	4.0	1.3	N	20	15	5	substrate; emergent vegetation
		24	529	7146747	565331	528	7146747	565334	pool class 3	3	1,224	0.8	3.2	3.2	N	60	60	60	large woody debris; substrate; depth/turbidity; emergent vegetation
		25	528	7146747	565334	527	7146757	565339	run class 3/riffle	14	1,238	0.4	1.0	1.0	N	20	15	5	substrate; emergent vegetation

Table X.VIII-2
Detailed Stream Habitat information Collected in the Kiggavik Project Area, 2008 and 2010

Sub-Basin	Watercourse	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish < 60 mm	Medium Fish 61-150 mm	Large Fish > 150 mm	
Willow Lake	Upper Tributary to the Northeast Inflow of Pointer Lake Stream	26	527	7146757	565339	526	7146794	565322	flat/riffle	43	1,281	0.3	0.9	0.9	N	50	25	5	substrate; emergent vegetation
		27	526	7146794	565322	525	7146805	565310	pool class 3	16	1,297	0.5	7.0	1.1	N	60	30	15	substrate; emergent vegetation
		28	525	7146805	565310	524	7146828	565301	run class 3	27	1,324	0.3	1.2	1.2	N	20	15	5	emergent vegetation
		29	524	7146828	565301	503	7146833	565304	pool class 3	5	1,329	0.7	1.1	1.1	N	60	60	60	substrate; depth/turbidity; emergent vegetation
		30	503	7146833	565304	523	7146884	565314	run class 3/riffle	53	1,382	0.2	1.0	1.0	N	20	15	0	substrate; emergent vegetation
		31	523	7146884	565314	522	7146905	565320	flat	21	1,403	0.3	2.0	2.3	N	20	0	0	substrate; emergent vegetation
		32	522	7146905	565320	521	7146943	565370	riffle/run class 3	67	1,470	0.2	1.2	1.2	N	20	15	0	substrate; emergent vegetation
		33	521	7146943	565370	520	7146939	565414	flat/riffle	43	1,513	0.2	2.2	2.2	N	20	5	0	substrate; emergent vegetation
		34	520	7146939	565414	519	7146946	565428	riffle/flat	16	1,529	0.2	0.7	0.7	N	10	0	0	substrate; submergent vegetation; emergent vegetation
		35	519	7146946	565428	518	7146947	565430	pool class 3	3	1,532	0.4	0.9	0.9	N	20	5	5	submergent vegetation; emergent vegetation
		36	518	7146947	565430	517	7146963	565438	flat	18	1,550	0.3	0.6	0.6	N	20	5	0	substrate; submergent vegetation; emergent vegetation
		37	517	7146963	565438	516	7146986	565439	pool class 3	23	1,573	0.1	1.3	1.3	N	5	0	0	substrate; emergent vegetation
		38	516	7146986	565439	515	7147003	565450	flat/riffle	20	1,593	0.1	0.4	0.4	N	10	0	0	substrate; submergent vegetation; emergent vegetation
		39	515	7147003	565450	514	7147013	565458	pool class 3/riffle	12	1,605	0.2	0.9	0.9	N	5	5	0	substrate; submergent vegetation
		40	514	7147013	565458	513	7147028	565461	flat (flow)	16	1,621	0.2	0.5	0.5	N	5	0	0	substrate; submergent vegetation; emergent vegetation
		41	513	7147028	565461	512	7147032	565462	flat (no flow)	4	1,625	0.1	1.0	1.0	N	15	10	0	substrate
		42	512	7147032	565462	511	7147049	565471	riffle/flat	19	1,644	0.1	0.4	0.4	N	5	0	0	substrate
		43	511	7147049	565471	510	7147053	565474	pool class 3	5	1,649	0.3	2.0	2.0	N	5	0	0	substrate
		44	510	7147053	565474	509	7147064	565478	flat	11	1,660	0.2	0.6	0.6	N	5	0	0	substrate
	Northwest Inflow of Pointer Lake	1	48	7146102	564031	49	7145925	564189	run class 3	436	436	0.15	9.9	-	N	0	0	0	submergent vegetation
		2	49	7145925	564189	51	7145576	564297	run class 3	384	820	0.15	1.1	-	N	0	0	0	substrate; submergent vegetation
		3	51	7145576	564297	52	7145526	564303	flat	139	959	0.15	36.5	-	N	0	0	0	submergent vegetation
		4	52	7145526	564303	Knot	7145416	564402	riffle	143	1,102	0.27	3.7	1.6	N	30	0	0	substrate; submergent vegetation
		5	Knot	7145416	564402	53	7145248	564436	pool class 1	-	-	>1.0	-	-	-	-	-	-	-
		6	53	7145248	564436	54	7145225	564511	run class 3	87	1,189	0.60	1.2	6.2	N	30	5	0	substrate; submergent vegetation
		7	54	7145225	564511	55	7145200	564549	run class 3	48	1,237	0.40	1.0	1.0	N	30	5	0	substrate; depth/turbidity; submergent vegetation
		8	55	7145200	564549	56	7145103	564574	run class 3	99	1,336	0.40	1.0	1.0	N	30	5	0	substrate; submergent vegetation
		9	56	7145103	564574	57	7145047	564705	flat	145	1,481	0.60	-	> 100	N	60	50	40	substrate
		10	57	7145047	564705	58	7145050	564840	riffle/run class 3	126	1,607	0.60	1.2	1.2	N	5	0	0	substrate
		11	58	7145050	564840	59	7144990	564950	run class 3	125	1,732	0.65	75.0	0.7	N	60	20	10	substrate; depth/turbidity
		12	59	7144990	564950	60	7144933	564970	run class 3	61	1,793	0.30	75.0	-	N	5	0	0	substrate
		13	60	7144933	564970	61	7144888	565025	pool class 3	70	1,863	0.65	60.0	-	N	50	30	10	substrate
		14	61	7144888	565025	62	7144754	565185	riffle	209	2,072	0.40	10.4	2.1	N	40	10	5	depth/turbidity
		15	62	7144754	565185	63	7144671	565262	run class 3	119	2,191	0.45	22.6	1.2	N	40	10	5	substrate
		16	63	7144671	565262	64	7144580	565330	riffle	115	2,306	0.50	60.0	0.6	N	30	5	5	substrate; depth/turbidity
		17	64	7144580	565330	Pointer	7144386	565537	run class 3	120	2,426	0.15	15.3	1.1	N	20	5	5	substrate
	Upper Northwest Inflow of Pointer Lake Stream	1	313	7146637	564287	314	7146645	564298	riffle/boulder garden	15	15	0.2	1.8	1.8	N	90	5	0	substrate; emergent vegetation
		2	314	7146645	564298	315	7146652	564297	flat	6	21	0.3	3.5	3.5	N	90	0	0	substrate
		3	315	7146652	564297	316	7146688	564293	riffle/boulder garden	41	62	0.2	3.9	3.9	N	50	0	0	substrate; emergent vegetation
		4	316	7146688	564293	317	7146690	564295	flat	3	65	0.3	4.2	4.2	N	50	0	0	substrate; emergent vegetation
		5	317	7146690	564295	318	7146721	564296	riffle/boulder garden	35	100	0.3	1.7	1.7	N	50	0	0	substrate; emergent vegetation
		6	318	7146721	564296	319	7146731	564296	run class 3/riffle	12	112	0.2	1.0	1.3	N	20	0	0	substrate; emergent vegetation
		7	319	7146731	564296	323	7146796	564310	riffle/boulder garden	84	196	0.3	1.3	1.3	N	30	0	0	substrate
		8	323	7146796	564310	325	7146815	564317	run class 3/riffle	21	217	0.3	1.3	1.3	N	30	0	0	substrate
		9	325	7146815	564317	326	7146820	564323	riffle/boulder garden	16	233	0.3	0.5	0.5	N	50	5	0	substrate
		10	326	7146820	564323	329	7146840	564334	run class 3/riffle	30	263	0.7	0.7	0.7	N	90	25	5	substrate; depth/turbidity
		11	329	7146840	564334	330	7146912	564376	run class 3/flat	100	363	0.5	-	-	N	40	25	0	substrate; submergent vegetation
		12	330	7146912	564376	332	7146952	564432	flat (underground)	72	435	0.5	-	-	N	90	25	5	substrate
		13	332	7146952	564432	333	7146965	564451	flat (inundated)	27	462	0.2	-	-	N	10	0	0	substrate
		14	333	7146965	564451	335	7147118	564519	pond	167	629	-	100	100	N	60	30	10	substrate; submergent vegetation; emergent vegetation
		15	335	7147118	564519	336	7147130	564522	pool class 3	12	641	0.6	2.3	2.3	N	10	0	0	-
		16	336	7147130	564522	376	7147156	564521	run class 3	34	675	0.3	1.3	1.3	N	10	0	0	emergent vegetation
		17	376	7147156	564521	375	7147161	564528	pool class 3	8	683	0.5	1.7	1.7	N	90	25	5	substrate; depth/turbidity; emergent vegetation
		18	375	7147161	564528	374	7147173	564531	riffle/pool class 3	13	696	0.3	0.4	0.8	N	50	0	0	substrate; emergent vegetation

Table X.VIII-2
Detailed Stream Habitat information Collected in the Kiggavik Project Area, 2008 and 2010

Sub-Basin	Watercourse	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish < 60 mm	Medium Fish 61-150 mm	Large Fish > 150 mm	
Willow Lake	Upper Northwest Inflow of Pointer Lake Stream	19	374	7147173	564531	373	7147188	564539	pool class 3	19	715	0.8	2.5	2.5	N	90	45	10	substrate; depth/turbidity; emergent vegetation
		20	373	7147188	564539	372	7147197	564545	riffle	11	726	0.5	0.4	0.4	N	10	0	0	substrate; emergent vegetation
		21	372	7147197	564545	371	7147203	564547	pool class 3	6	732	0.5	0.8	0.8	N	50	15	0	substrate; emergent vegetation
		22	371	7147203	564547	370	7147240	564553	riffle/run class 3	40	772	0.3	0.3	0.3	N	10	0	0	substrate; emergent vegetation
		23	370	7147240	564553	369	7147242	564552	pool class 3	2	774	0.4	0.3	0.3	N	40	5	0	substrate
		24	369	7147242	564552	368	7147250	564553	riffle/run class 3	8	782	0.2	0.5	0.5	N	10	0	0	substrate; emergent vegetation
		25	368	7147250	564553	367	7147261	564566	riffle/flat	18	800	0.2	0.3	0.3	N	10	0	0	substrate; emergent vegetation
		26	367	7147261	564566	366	7147263	564567	pool class 3	2	802	0.3	1.3	1.3	N	10	0	0	substrate; emergent vegetation
		27	366	7147263	564567	365	7147316	564595	riffle/flat	61	863	0.1	0.4	0.4	N	10	0	0	substrate; emergent vegetation
		28	365	7147316	564595	364	7147322	564597	pool class 3/flat	7	870	0.3	1.1	1.1	N	10	0	0	substrate; emergent vegetation
		29	364	7147322	564597	363	7147351	564611	riffle/run class 3	32	902	0.1	0.3	0.3	N	10	0	0	substrate; emergent vegetation
		30	363	7147351	564611	362	7147388	564620	flat	43	945	0.1	0.3	0.3	N	10	0	0	emergent vegetation
		31	362	7147388	564620	361	7147414	564623	flat (flow)	26	971	<0.1	0.1	0.1	N	0	0	0	submergent vegetation; emergent vegetation
		32	361	7147414	564623	360	7147469	564644	flat (no flow)	70	1041	0.1	0.3	0.3	N	10	0	0	emergent vegetation
		33	360	7147469	564644	359	7147470	564654	pond	10	1051	0.4	30	30	N	50	10	10	emergent vegetation
		34	359	7147470	564654	358	7147496	564645	pool class 3	28	1079	0.5	2.0	2.0	N	50	10	0	emergent vegetation
		35	358	7147496	564645	357	7147504	564641	flat	9	1088	0.1	1.4	1.4	N	10	0	0	emergent vegetation
		36	357	7147504	564641	356	7147506	564640	pool class 3	3	1091	0.5	2.0	2.0	N	50	25	0	emergent vegetation
		37	356	7147506	564640	355	7147515	564640	run class 3	10	1101	0.3	1.2	1.2	N	50	0	0	emergent vegetation
		38	355	7147515	564640	354	7147536	564628	flat	24	1125	0.1	0.3	0.3	N	10	0	0	submergent vegetation; emergent vegetation
		39	354	7147536	564628	353	7147544	564632	pool class 3	9	1134	0.2	5.5	5.5	N	20	0	0	emergent vegetation
		40	353	7147544	564632	352	7147659	564691	flat	137	1271	0.1	0.2	0.2	N	0	0	0	substrate; emergent vegetation
		41	352	7147659	564691	351	7147757	564747	flat	130	1401	0.2	0.2	0.2	N	10	0	0	substrate; emergent vegetation
		42	351	7147757	564747	350	7147775	564745	no visible channel (underground)	19	1420	-	-	-	N	0	0	0	substrate
		43	350	7147775	564745	349	7147784	564749	riffle/boulder garden	10	1430	0.2	0.9	0.9	N	20	0	0	substrate; emergent vegetation
		44	349	7147784	564749	348	7147867	564785	flat	95	1525	0.2	1.0	1.0	N	20	0	0	substrate; emergent vegetation
		45	348	7147867	564785	347	7147934	564786	flat	76	1601	0.2	1.0	1.0	N	20	0	0	emergent vegetation
		46	347	7147934	564786	346	7148004	564803	flat	77	1678	0.2	10	6	N	10	0	0	substrate; emergent vegetation
		47	346	7148004	564803	345	7148013	564812	no visible channel (underground)	15	1693	-	-	-	N	0	0	0	substrate
		48	345	7148013	564812	341	7148051	564840	flat	49	1742	0.3	1.2	1.2	N	20	0	0	emergent vegetation
		49	341	7148051	564840	344	7148074	564879	pond	45	1787	-	40	40	N	50	30	20	substrate; emergent vegetation
		50	344	7148074	564879	343	7148075	564902	pool class 3	23	1810	0.4	8	4	N	20	0	0	substrate; emergent vegetation
		51	343	7148075	564902	342	7148078	564905	flat	5	1815	0.2	3	3	N	50	20	0	substrate; emergent vegetation
		52	342	7148078	564905	-	-	-	pond	-	-	-	-	-	-	-	-	-	-
	Pointer/Rock Stream	1	Pointer L	7140897	566481	32	7140856	566504	run class 2	48	48	1.50	-	-	N	80	40	10	substrate; submergent vegetation
		2	32	7140856	566504	33	7140751	566551	riffle/rapids	124	172	0.55	-	-	N	80	40	10	substrate; submergent vegetation
		3	33	7140751	566551	34	7140658	566630	rapids	133	305	0.70	-	-	N	80	40	10	substrate; depth/turbidity; submergent vegetation
		4	34	7140658	566630	35	7140637	566622	run class 2	24	329	0.75	-	-	N	80	60	20	substrate; depth/turbidity; submergent vegetation
		5	35	7140637	566622	36	7140508	566660	riffle/boulder garden	138	467	0.30	-	-	N	80	60	20	substrate; depth/turbidity; submergent vegetation
		6	36	7140508	566660	37	7140493	566667	rapids	18	485	0.30	-	-	N	80	60	20	substrate; depth/turbidity; submergent vegetation
		7	37	7140493	566667	38	7140291	566634	run class 2	203	688	0.90	-	-	N	40	15	5	substrate; depth/turbidity; submergent vegetation
		8	38	7140291	566634	39	7140276	566628	riffle/boulder garden	18	706	0.50	-	-	N	100	90	70	substrate; depth/turbidity; submergent vegetation
		9	39	7140276	566628	40	7140257	566639	run class 2	21	727	0.90	-	-	N	80	60	20	substrate; submergent vegetation
		10	40	7140257	566639	41	7140158	566697	rapids/riffle	117	844	1.00	-	-	N	100	90	70	substrate; depth/turbidity; submergent vegetation
		11	41	7140158	566697	42	7140113	566664	riffle	56	900	>1.5	-	-	N	100	100	80	substrate; depth/turbidity; submergent vegetation
		12	42	7140113	566664	43	7140079	566659	rapids	37	937	>1.0	-	-	N	100	100	100	substrate; depth/turbidity; submergent vegetation
		13	43	7140079	566659	44	7140036	566627	run class 3	50	987	0.60	-	-	N	90	80	40	substrate; submergent vegetation
		14	44	7140036	566627	45	7139935	566601	riffle/rapids	84	1,071	>1.0	-	-	N	100	85	70	substrate; depth/turbidity; submergent vegetation
	Sik Sik/ Rock Stream	1	24	71406479	565602	25	7140645	565644	run class 3	2	2	0.25	12.5	-	N	30	0	0	submergent vegetation
		2	25	7140645	565644	26	7140395	565790	flat	291	293	0.90	47.5	61.0	N	20	20	10	substrate; submergent vegetation
		3	26	7140395	565790	27	7140301	565887	run class 2	136	429	0.90	3.4	-	N	5	0	0	turbulence; submergent vegetation
		4	27	7140301	565887	28	7140214	565900	flat	87	516	0.70	100	-	N	5	5	0	substrate; turbulence; submergent vegetation
		5	28	7140214	565900	29	7140141	565941	run class 2	239	755	0.90	3.1	-	N	20	20	20	substrate; turbulence; submergent vegetation
	Rock/ Willow Stream	6	29	7140141	565941	Rock L	7139980	565968	run class 3	170	925	0.20	2.5	-	N	0	0	0	submergent vegetation
		1	15	7139330	566410	16	7139266	566553	riffle	157	157	0.90	47.6	26.4	N	40	20	10	small woody debris; substrate; submergent vegetation
		2	16	7139266	566553	17	7139260	566575	run class 2	20	177	1.20	32.7	17.8	N	60	20	20	substrate; submergent vegetation
		3	17	7139260	566575	18	7139130	566689	riffle/boulder garden	172	349	2.00	41.4	17.8	N	60	30	10	substrate; submergent vegetation
		4	18	7139130	566689	20	7139065	566711	run class 2	71	420	1.00	24.7	50.7	N	40	40	20	substrate; submergent vegetation

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Sub-Basin	Watercourse	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish < 60 mm	Medium Fish 61-150 mm	Large Fish > 150 mm	
Willow Lake	Willow/Judge Sissons Stream	1	jslake	7137569	566094	8	7137576	566008	riffle	97	97	>2.0	100	-	N	60	10	5	substrate; depth/turbidity; submergent vegetation
		2	8	7137576	566008	9	7137609	565988	run class 1	32.5	129.5	>2.0	100	-	N	60	10	5	substrate; depth/turbidity; submergent vegetation
		3	9	7137609	565988	10	7137611	565923	riffle	61	190.5	>2.0	100	-	N	30	5	0	substrate; depth/turbidity; submergent vegetation
		4	10	7137611	565923	11	7137608	565882	run class 2	43.5	234	0.80	80.0	-	N	15	5	0	substrate; depth/turbidity; submergent vegetation
		5	11	7137608	565882	12	7137635	565831	riffle	60.5	294.5	1.20	60.0	-	N	10	5	0	substrate; depth/turbidity; submergent vegetation
		6	12	7137635	565831	13	7137758	565870	run class 3	120	414.5	0.80	100	-	N	5	0	0	substrate; submergent vegetation
		7	13	7137758	565870	14	7132916	565968	flat/run class 3	180	594.5	1.20	110	-	N	5	0	0	substrate; submergent vegetation
Lower Lake	Mushroom/ End Grid Stream	1	106	7135890	554709	108	7135996	554528	run class 3	210	210	0.30	18.6	1.5	N	60	20	5	substrate; depth/turbidity
		2	108	7135996	554528	113	7136731	554165	run class 3	1103	1,313	0.20	5.2	1.0	N	25	10	5	-
		End	113	7136731	554165	-	-	-	-	-	-	0.30	6.2	6.2	N	25	25	10	-
	End Grid/Shack Stream	1	87	7134196	555029	88	7134218	555020	run class 3	47	47	0.60	60.0	25.0	N	80	30	10	substrate
		2	88	7134218	555020	89	7134269	554997	pool class 2	49	96	>1.0	-	-	-	-	-	-	-
		3	89	7134269	554997	90	7134296	554939	run class 3	63	159	0.50	30.0	1.9	N	30	5	5	-
		4	90	7134296	554939	91	7134492	554809	pool class 2	236	395	>1.0	-	-	-	-	-	-	-
		5	91	7134492	554809	92	7134955	554692	flat	483	878	0.30	500	-	N	80	5	5	submergent vegetation; emergent vegetation
		6	92	7134955	554692	94	7135249	554755	pool class 2	300	1,178	>1.0	-	-	-	-	-	-	-
		7	94	7135249	554755	95	7135485	554730	flat	253	1,431	0.50	500	-	N	80	5	5	submergent vegetation; emergent vegetation
	Cigar/ Lunch Stream	1	78	7134722	551582	79	7134633	551501	riffle	120	120	0.40	45.6	-	N	60	10	0	substrate; depth/turbidity
		2	79	7134633	551501	80	7134573	551395	run class 3	120	240	0.70	200	2.5	N	60	10	0	substrate; depth/turbidity
		3	80	7134573	551395	81	7134499	551295	flat	130	370	0.80	12.0	6.5	N	20	30	20	substrate; depth/turbidity
		4	81	7134499	551295	82	7134378	551061	run class 3	260	630	0.40	-	3.5	N	80	20	10	substrate; depth/turbidity
		5	82	7134378	551061	84	7134379	550943	flat	100	730	0.60	-	3.4	N	60	10	5	substrate; depth/turbidity
		6	84	7134379	550943	86	7133930	550906	run class 3	460	1,190	0.50	12.9	2.9	N	70	60	50	substrate; depth/turbidity
		End	86	7133930	550906	-	-	-	-	-	-	0.50	17.5	2.5	N	60	10	5	substrate
	Knee/ Lunch Stream	1	115	7135987	551867	116	7136072	551893	run class 2	152	152	0.80	19.1	0.8	N	30	20	5	-
		2	116	7136072	551893	117	7136138	551918	riffle	106	258	0.50	4.5	3.8	N	80	50	20	substrate; depth/turbidity
		End	117	7136138	551918	-	-	-	-	-	-	0.70	20.0	2.2	N	80	50	20	substrate; depth/turbidity
	Lunch/ Andrew Stream	1	75	7134582	552489	76	7134708	552229	run class 2	288	288	0.80	10.0	8.6	N	70	30	10	substrate; depth/turbidity
		2	76	7134708	552229	77	7134730	552037	flat	475	763	1.20	34.5	27.5	N	10	20	20	substrate; depth/turbidity
	Andrew/ Shack Stream	1	69	7133949	554292	70	7133966	553977	run class 2	314	314	0.80	60.0	8.9	N	40	10	5	substrate; depth/turbidity
		2	70	7133966	553977	72	7134104	553662	riffle	320	634	0.60	25.0	15.4	N	60	20	5	substrate; depth/turbidity
		3	72	7134104	553662	74	7134225	553299	run class 3	380	1,014	0.70	12.0	7.5	N	70	30	10	substrate; depth/turbidity
		End	74	7134225	553299	-	-	-	-	-	-	1.10	15.5	7.5	N	50	30	5	substrate; depth/turbidity
	Shack/Lower Stream	1	29	7131725	559562	30	7131719	559542	run class 2	26.5	26.5	0.83	12.0	12.0	N	80	40	10	turbulence; depth/turbidity
		2	30	7131719	559542	31	7131665	559505	rapids	50.7	77.2	1.00	19.4	19.4	N	80	40	10	turbulence; depth/turbidity
		3	31	7131665	559505	32	7131597	559446	run class 2	91	168.2	0.83	29.1	6.3	N	80	50	20	turbulence; depth/turbidity
		4	32	7131597	559446	33	7131557	559423	flat	40	208.2	1.50	16.0	16.0	N	25	25	20	-
		5	33	7131557	559423	34	7131319	559406	pool class 2	238	446.2	>1.0	-	-	-	-	-	-	-
		6	34	7131319	559406	35	7131283	559442	run class 2	50	496.2	0.80	22.5	16.0	N	60	30	10	turbulence; depth/turbidity
		7	35	7131283	559442	36	7131064	559516	flat	300	796.2	1.20	22.0	16.0	N	60	30	10	-
		8	36	7131064	559516	37	7131070	559463	run class 3	53	849.2	0.50	16.0	16.0	N	70	40	20	turbulence; depth/turbidity
		9	37	7131070	559463	38	7131014	559441	rapids	63	912.2	>1.3	7.0	7.0	N	40	60	60	turbulence; depth/turbidity
		10	38	7131014	559441	39	7131017	559384	run class 3	59	971.2	0.7	20.0	25.0	N	60	30	30	turbulence; depth/turbidity
		11	39	7131017	559384	41	7131149	559176	run class 3	244	1,215.2	0.7	30.0	10.0	N	60	30	30	turbulence; depth/turbidity
		12	41	7131149	559176	43	7131149	559136	riffle	33	1,248.2	0.56	31.5	18.2	N	60	10	5	turbulence
		13	43	7131149	559136	44	7131114	559010	run class 2	131	1,379.2	0.85	39.8	20.0	N	60	30	30	turbulence; depth/turbidity
		14	44	7131114	559010	45	7131161	558816	riffle	199	1,578.2	0.60	24.1	24.1	N	60	10	5	turbulence
		15	45	7131161	558816	46	7131350	558525	run class 2	351	1,929.2	0.90	30.0	6.0	N	40	30	30	turbulence; depth/turbidity
		16	46	7131350	558525	47	7131598	558335	pool class 2	311	2,240.2	>1.0	-	-	-	-	-	-	-
		17	47	7131598	558335	48	7131916	558222	run class 2	333	2,573.2	0.80	16.0	6.0	N	40	30	30	turbulence; depth/turbidity
		18	48	7131916	558222	49	7131981	558098	pool class 2	147	2,720.2	>1.0	-	-	-	-	-	-	-
		19	49	7131981	558098	50	7131988	557946	run class 1	162	2,882.2	>1.3	16.0	6.0	N	80	30	30	depth/turbidity
		20	50	7131988	557946	51	7132256	557827	pool class 2	278	3,160.2	>1.0	-	-	-	-	-	-	-
		21	51	7132256	557827	54	7132703	557389	flat	624	3,784.2	>1.3	16.0	16.0	Y	80	40	40	depth/turbidity
		22	54	7132703	557389	55	7132965	557300	rapids	267	4,051.2	0.70	30.0	16.0	N	30	20	30	depth/turbidity
		23	55	7132965	557300	56	7133043	557237	run class 2	101	4,152.2	0.90	30.0	5.0	N	30	50	60	depth/turbidity
		24	56	7133043	557237	57	7133220	556965	rapids	281	4,433.2	>1.3	30.0	6.0	N	30	20	20	depth/turbidity
		25	57	7133220	556965	58	7133364	556644	run class 1	373	4,806.2	>1.3	100	2.0	N	30	20	20	depth/turbidity
		26	58	7133364	556644	59	7133118	556155	rapids	566	5,372.2	>1.3	100	8.0	Y	30	20	20	depth/turbidity
		27	59	7133118	556155	60	7132962	555924	run class 1	350	5,722.2	1.20	100	2.0	N	80	30	30	depth/turbidity
		28	60	7132962	555924	shlws	7132969	555707	flat	280	6,002.2	>1.3	-	-	N	80	70	70	-

Table X.VIII-2
Detailed Stream Habitat information Collected in the Kiggavik Project Area, 2008 and 2010

Sub-Basin	Watercourse	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish < 60 mm	Medium Fish 61-150 mm	Large Fish > 150 mm	
Lower Lake	Lower/Judge Sissons Stream	1	21	7133547	559990	22	7133627	559880	flat	140	140	1.20	75.0	5.0	N	75	40	5	substrate; depth/turbidity
		2	22	7133627	559880	23	7133612	559779	riffle	92.5	232.5	0.89	41.4	4.0	N	75	20	5	substrate; depth/turbidity
		3	23	7133612	559779	25	7133100	559964	run class 2	743	975.5	0.73	23.5	4.0	N	60	10	10	substrate; depth/turbidity
		End	25	7133100	559964	-	-	-	-	-	-	0.70	70.0	5.0	N	60	10	5	substrate; depth/turbidity
Caribou Lake	Fox/ Caribou Stream	1	134	7142045	563194	135	7142033	563158	run class 3	40	40	0.48	22.0	14.4	N	80	20	5	substrate
		2	135	7142033	563158	-	-	-	riffle	540	580	0.50	14.5	7.5	N	10	0	0	substrate
		3	-	-	-	-	-	-	run class 3	70	650	0.50	40.0	20.0	N	10	0	0	substrate
	Caribou/ Calf Stream	1	132	7137303	563772	129	7137466	563678	riffle/boulder garden	180	180	0.50	18.5	20.4	N	60	10	5	substrate; depth/turbidity
		2	129	7137466	563678	131	7137511	563623	run class 3	71	251	0.60	18.4	21.6	N	60	10	5	substrate
	Calf/Judge	1	124	7136622	565828	127	7136788	565098	run class 3	1325	1,325	0.70	60.0	49.4	N	90	40	30	-
	Sissons Stream	2	127	7136788	565098	130	7136811	564728	flat	440	1,765	0.80	150.0	7.0	N	70	30	20	-

Table X.VIII-2
Detailed Stream Habitat information Collected in the Kiggavik Project Area, 2008 and 2010

Sub-Basin	Watercourse	Channel Unit #	Overhead Cover Present	Substrate (%)									1/4 Width					1/2 Width					3/4 Width				
													Velocity (m/s)				Angle (°)	Velocity (m/s)				Angle (°)	Velocity (m/s)				Angle (°)
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Boulder Garden	Depth (m)	20%	80%	60%		Depth (m)	20	80	60		Depth (m)	20	80	60	
Willow Lake	Northeast Inflow of Pointer Lake	1	inundated vegetation	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		2	inundated vegetation	60	-	-	-	-	40	-	-	-	-	-	-	-	-	0.12	-	-	0.50	0	-	-	-	-	-
		3	inundated vegetation	100	-	-	-	-	-	-	-	-	0.13	-	-	0.13	0	0.13	-	-	0.43	0	0.17	-	-	0.16	0
		4	inundated vegetation	100	-	-	-	-	-	-	-	-	0.15	-	-	0.01	0	0.25	-	-	0	0	0.17	-	-	0	0
		5	inundated vegetation	-	-	-	-	-	70	30	-	-	0.21	-	-	0.11	0	0.20	-	-	0.21	0	0.17	-	-	0.09	5
		6	inundated vegetation	-	-	-	-	-	90	10	-	-	0.30	-	-	0.04	0	0.60	-	-	0.04	0	0.25	-	-	0.10	0
		7	inundated vegetation	100	-	-	-	-	-	-	-	-	0.17	-	-	0.00	0	0.18	-	-	0.10	0	0.17	-	-	0.05	0
		8	inundated vegetation	-	-	-	-	40	60	-	-	-	0.18	-	-	0.03	0	0.18	-	-	0.20	0	0.18	-	-	0.44	0
		9	inundated vegetation	100	-	-	-	-	-	-	-	-	0.15	-	-	0.40	0	0.18	-	-	0.09	0	0.18	-	-	0.32	0
		10	inundated vegetation	25	-	-	-	40	35	-	-	-	0.15	-	-	0.09	0	0.11	-	-	0.28	0	0.12	-	-	0.29	0
		11	inundated vegetation	100	-	-	-	-	-	-	-	-	0.18	-	-	0.15	0	0.17	-	-	0.05	5-Right	0.16	-	-	0.14	0
		12	inundated vegetation	20	-	-	-	20	35	25	-	-	0.40	-	-	0.03	0	0.50	-	-	0.04	0	0.47	-	-	0.03	0
		13	inundated vegetation	-	-	-	-	-	35	65	-	-	-	-	-	-	-	0.15	-	-	0.39	0	0.10	-	-	0.81	0
		14	-	-	-	-	-	-	30	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15	inundated vegetation	-	-	-	-	-	40	60	-	-	0.16	-	-	0.26	0	0.05	-	-	0.40	0	0.20	-	-	0	0
		16	inundated vegetation	-	-	-	-	20	70	10	-	-	0.15	-	-	0.37	0	0.15	-	-	0.60	0	0.11	-	-	0.36	0
		17	inundated vegetation	-	-	-	-	15	65	20	-	-	0.33	-	-	0	0	0.25	-	-	0.02	0	0.24	-	-	0	0
		18	inundated vegetation	-	-	-	-	15	55	30	-	-	0.17	-	-	0.00	0	0.18	-	-	0.01	0	0.22	-	-	0.03	5-Right
		19	inundated vegetation	-	-	-	-	-	15	85	-	-	0.17	-	-	0.01	0	0.20	-	-	0.02	0	0.17	-	-	0.02	0
		20	inundated vegetation	-	-	-	-	-	30	70	-	-	0.06	-	-	0.00	0	0.21	-	-	0.07	0	0.21	-	-	0.10	0
		21	inundated vegetation	10	-	-	-	-	90	-	-	-	0.15	-	-	0.53	0	0.20	-	-	0.51	0	0.20	-	-	0.56	0
		22	inundated vegetation	5	-	-	-	-	95	-	-	-	0.20	-	-	0.20	0	0.20	-	-	0.18	0	0.20	-	-	0.12	0
		23	inundated vegetation	90	-	-	-	-	10	-	-	-	0.17	-	-	0.11	0	0.17	-	-	0	0	0.16	-	-	0	0
		24	undercut bank/inundated vegetation	-	-	-	-	75	25	-	-	-	0.32	-	-	0	0	0.31	-	-	0	0	0.25	-	-	0.25	0
		25	inundated vegetation	-	-	-	-	-	30	70	-	-	0.10	-	-	0.24	0	0.12	-	-	0.29	0	0.10	-	-	0.28	0
		26	inundated vegetation	75	-	-	25	-	-	-	-	-	0.12	-	-	0.14	0	0.10	-	-	0	0	0.15	-	-	0	0
		27	inundated vegetation	5	-	-	-	-	25	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		28	inundated vegetation	-	-	-	70	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		29	inundated vegetation	-	-	-	-	-	60	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		30	undercut bank/ledge	-	-	-	-	-	70	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Upper Tributary to the Northeast Inflow of Pointer Lake Stream	1	inundated vegetation	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		2	inundated vegetation	-	-	95	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		3	inundated vegetation	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		4	inundated vegetation	75	-	20	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		5	inundated vegetation	95	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		6	inundated vegetation	95	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		7	inundated vegetation	30	-	-	-	-	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		8	inundated vegetation	20	-	10	10	-	10	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		9	inundated vegetation	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		10	inundated vegetation	20	-	20	10	-	10	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		11	inundated vegetation	55	-	40	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		12	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		13	inundated vegetation	10	-	30	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14	inundated vegetation	30	-	-	40	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15	inundated vegetation	60	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16	inundated vegetation	60	20	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17	undercut banks; inundated vegetation	40	-	-	-	-	20	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		18	inundated vegetation	30	-	10	10	-	20	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		19	inundated vegetation	-	-	40	40	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		20	-	20	-	30	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		21	inundated vegetation	65	-	30	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		22	inundated vegetation	70	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		23	inundated vegetation	90	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24	inundated vegetation	-	-	60	30	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		25	inundated vegetation	40	-	20	-	-	20	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table X.VIII-2
Detailed Stream Habitat information Collected in the Kiggavik Project Area, 2008 and 2010

Sub-Basin	Watercourse	Channel Unit #	Overhead Cover Present	Substrate (%)									1/4 Width					1/2 Width					3/4 Width					
													Velocity (m/s)					Angle (°)	Velocity (m/s)				Angle (°)	Velocity (m/s)				Angle (°)
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Boulder Garden	Depth (m)	20%	80%	60%	Depth (m)		20	80	60	Depth (m)		20	80	60		
Willow Lake	Upper Tributary to the Northeast Inflow of Pointer Lake Stream	26	inundated vegetation	40	-	40	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		27	inundated vegetation	30	-	20	20	-	10	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		28	inundated vegetation	50	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		29	inundated vegetation	20	-	5	5	30	30	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		30	inundated vegetation	20	-	20	20	10	20	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		31	inundated vegetation	20	-	20	50	-	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		32	inundated vegetation	5	-	5	30	30	10	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		33	inundated vegetation	20	-	-	30	30	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		34	inundated vegetation	30	-	-	30	20	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		35	inundated vegetation	60	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		36	inundated vegetation	50	-	20	20	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		37	inundated vegetation	40	-	-	10	10	10	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		38	inundated vegetation	60	-	-	20	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		39	-	10	-	10	20	30	20	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		40	inundated vegetation	50	-	-	-	10	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		41	-	10	-	-	-	-	80	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		42	-	60	-	-	-	-	20	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		43	-	60	-	-	-	-	10	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		44	-	70	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Northwest Inflow of Pointer Lake	1	inundated vegetation	100	-	-	-	-	-	-	-	-	0.05	-	-	0	0	0.07	-	-	0.17	5-Left	0.19	-	-	0.16	10-Right	
		2	inundated vegetation	-	-	-	-	90	10	-	-	-	0.19	-	-	0.13	5-Left	0.45	-	-	0.33	0	0.17	-	-	0.01	0	
		3	inundated vegetation	80	-	-	-	-	20	-	-	-	0.52	-	-	0	0	0.55	-	-	0	0	0.63	-	-	0	0	
		4	inundated vegetation	60	-	-	-	10	20	10	-	-	0.21	-	-	0.35	0	0.27	-	-	1.32	0	0.27	-	-	0.8	0	
		5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		6	inundated vegetation	-	-	-	-	-	80	20	-	-	0.33	-	-	0.67	5-Right	0.34	-	-	0.48	10-Right	0.28	-	-	0.26	5-Left	
		7	inundated vegetation	10	-	-	-	-	50	40	-	-	0.19	-	-	0.11	5-Left	0.33	-	-	0.32	0	0.34	-	-	1.01	0	
		8	inundated vegetation	-	-	-	-	-	60	40	-	-	0.27	-	-	0.36	0	0.32	-	-	0.41	0	0.38	-	-	0.50	5-Right	
		9	inundated vegetation	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		10	inundated vegetation	-	-	-	-	80	20	-	-	-	0.18	-	-	0.55	0	0.13	-	-	0.50	5-Right	0.17	-	-	0.42	5-Right	
		11	inundated vegetation	-	-	-	-	20	40	40	-	-	0.47	-	-	0.08	15-Right	0.54	-	-	0.22	15-Right	0.51	-	-	0.32	15-Right	
		12	inundated vegetation	100	-	-	-	-	-	-	-	-	0.21	-	-	0.25	0	0.25	-	-	0.36	0	0.15	-	-	0	0	
		13	inundated vegetation	-	-	-	80	10	10	-	-	-	-	-	-	-	-	0.56	-	-	0.13	0	-	-	-	-	-	
		14	inundated vegetation	100	-	-	-	-	-	-	-	-	0.18	-	-	0.52	0	0.27	-	-	1.20	5-Right	0.32	-	-	0.92	0	
		15	inundated vegetation	70	-	-	10	20	-	-	-	-	0.43	-	-	0.57	0	0.43	-	-	0.84	0	0.36	-	-	0.87	5-Right	
		16	inundated vegetation	-	-	-	5	90	5	-	-	-	0.38	-	-	0.83	0	0.54	-	-	1.34	0	0.50	-	-	0.31	0	
		17	inundated vegetation	-	-	-	5	90	5	-	-	-	0.23	-	-	0.46	5-Left	0.18	-	-	0.81	0	0.16	-	-	0.71	5-Right	
	Upper Northwest Inflow of Pointer Lake Stream	1	undercut banks	-	-	-	5	25	50	20	-	-	0.10	-	-	0.33	-	0.10	-	-	0.27	-	0.07	-	-	0.42	-	
		2	-	-	-	-	20	30	40	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		3	-	-	-	-	5	50	30	15	-	-	0.07	-	-	0.03	-	0.09	-	-	0.19	-	0.14	-	-	0.01	-	
		4	-	20	-	-	10	35	30	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		5	-	5	-	-	5	10	50	30	-	-	0.16	-	-	0.25	-	0.15	-	-	0.02	-	0.15	-	-	0.10	-	
		6	-	-	-	-	30	45	20	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		7	-	5	-	-	5	5	45	40	-	-	0.16	-	-	0.55	-	0.17	-	-	0.13	-	0.17	-	-	0.06	-	
		8	overhanging vegetation	-	-	20	20	20	30	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		9	overhanging vegetation	-	-	-	20	10	40	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		10	undercut banks; inundated vegetation; overhanging vegetation	-	-	-	5	-	25	70	-	-	0.07	-	-	0.66	-	0.07	-	-	0.19	-	0.09	-	-	0.47	-	
		11	undercut banks; inundated vegetation; overhanging vegetation	10	-	-	10	10	30	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		12	undercut banks; overhanging vegetation	-	-	-	-	-	30	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13		undercut banks; inundated vegetation	80	-	10	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
14		-	30	-	30	30	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
15		inundated vegetation	-	-	20	50	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
16		-	90	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
17		-	10	-	-	20	30	20	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
18		-	50	-	-	20	20	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Table X.VIII-2
Detailed Stream Habitat information Collected in the Kiggavik Project Area, 2008 and 2010

Sub-Basin	Watercourse	Channel Unit #	Overhead Cover Present	Substrate (%)									1/4 Width					1/2 Width					3/4 Width						
													Velocity (m/s)					Angle (°)	Velocity (m/s)				Angle (°)	Velocity (m/s)				Angle (°)	
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Boulder Garden	Depth (m)	20%	80%	60%	Depth (m)		20	80	60	Depth (m)		20	80	60			
Willow Lake	Upper Northwest Inflow of Pointer Lake Stream	19	-	50	-	-	10	20	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		20	-	60	-	-	-	20	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	-	35	-	-	30	5	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		22	-	50	-	-	10	20	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		23	-	5	-	-	-	20	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		24	-	90	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		25	-	70	-	-	-	10	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		26	-	80	-	-	-	-	10	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		27	-	95	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		28	-	55	-	10	-	10	20	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		29	-	50	-	-	10	10	15	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		30	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		31	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		32	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		33	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		34	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		35	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		36	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		37	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		38	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		39	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		40	-	50	-	-	-	10	20	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		41	-	50	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		42	undercut banks	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		43	-	5	-	-	-	-	35	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		44	undercut banks	60	-	10	-	-	10	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		45	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		46	-	90	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		47	undercut banks	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		48	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		49	inundated vegetation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		50	inundated vegetation	-	-	20	20	10	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	51	-	-	-	-	20	20	30	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Pointer/Rock Stream	1	inundated vegetation	10	-	-	-	5	70	15	-	-	0.46	-	-	0.30	0	0.74	-	-	0.43	0	-	-	-	-	-		
		2	inundated vegetation	-	-	-	-	-	60	40	-	-	0.42	-	-	1.22	0	-	-	-	-	-	-	-	-	-	-		
		3	inundated vegetation	-	-	-	-	-	40	60	-	-	0.44	-	-	1.01	0	-	-	-	-	-	-	-	-	-			
		4	inundated vegetation	-	-	-	-	-	60	40	-	-	0.75	-	-	0.93	0	-	-	-	-	-	-	-	-	-			
		5	inundated vegetation	-	-	-	-	-	20	80	-	-	0.27	-	-	0.86	5-Left	-	-	-	-	-	-	-	-	-			
		6	inundated vegetation	-	-	-	-	-	20	80	-	-	0.31	-	-	1.00	0	-	-	-	-	-	-	-	-	-			
		7	inundated vegetation	-	-	-	-	70	30	-	-	0.85	0.36	0.52	-	0	-	-	-	-	-	-	-	-	-	-			
		8	inundated vegetation	-	-	-	-	-	10	90	-	-	0.41	-	-	0.95	0	-	-	-	-	-	-	-	-	-			
		9	inundated vegetation	-	-	-	10	-	80	10	-	-	0.81	0.33	0.44	-	0	-	-	-	-	-	-	-	-	-			
		10	inundated vegetation	-	-	-	-	-	10	90	-	-	0.81	1.24	0.83	-	0	-	-	-	-	-	-	-	-	-			
11		inundated vegetation	-	-	-	90	10	-	-	-	-	1.10	0.06	0.10	-	0	-	-	-	-	-	-	-	-	-				
12		inundated vegetation	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
13		inundated vegetation	-	-	-	-	-	80	20	-	-	0.60	-	-	0.69	0	-	-	-	-	-	-	-	-	-				
14		inundated vegetation	-	-	-	10	-	60	30	-	-	0.42	-	-	1.11	0	-	-	-	-	-	-	-	-	-				
Sik Sik/ Rock Stream		1	inundated vegetation	100	-	-	-	-	-	-	-	-	0.14	-	-	0.01	180	0.24	-	-	0	180	0.25	-	-	0	180		
		2	inundated vegetation	40	-	-	-	10	20	30	-	-	0.67	-	-	0.00	180	-	-	-	-	-	-	-	-	-			
		3	inundated vegetation	90	-	-	-	10	-	-	-	-	0.48	-	-	0.05	180	0.62	-	-	0.04	180	0.63	-	-	0	180		
		4	inundated vegetation	90	-	-	-	-	-	10	-	-	-	-	-	-	-	0.36	-	-	0.17	185	-	-	-	-	-		
		5	inundated vegetation	90	-	-	-	-	-	10	-	-	-	-	-	-	-	0.07	-	-	0.15	180	-	-	-	-	-		
		6	inundated vegetation	100	-	-	-	-	-	-	-	-	0.17	-	-	0.49	180	0.17	-	-	0.42	190	0.15	-	-	0.34	200		
Rock/ Willow Stream	1	inundated vegetation	-	-	-	-	70	20	10	-	-	0.50	-	-	0.60	175	0.80	0.46	0.84	-	175	0.68	-	-	0.70	180			
	2	inundated vegetation	-	-	-	-	30	50	20	-	-	0.85	0.33	1.06	-	180	0.70	-	-	0.60	175	0.29	-	-	0.71	185			
	3	inundated vegetation	-	-	-	-	40	30	20	-	10	0.68	-	-	0.71	180	0.62	-	-	0.91	180	0.60	-	-	0.57	180			
	4	inundated vegetation	-	-	-	-	40	20	20	-	20	0.50	-	-	0.50	180	0.78	-	-	0.35	180	0.33	-	-	0.41	180			

Table X.VIII-2
Detailed Stream Habitat information Collected in the Kiggavik Project Area, 2008 and 2010

Sub-Basin	Watercourse	Channel Unit #	Overhead Cover Present	Substrate (%)									1/4 Width					1/2 Width					3/4 Width				
													Velocity (m/s)					Velocity (m/s)					Velocity (m/s)				
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Boulder Garden	Depth (m)	20%	80%	60%	Angle (°)	Depth (m)	20	80	60	Angle (°)	Depth (m)	20	80	60	Angle (°)
Willow Lake	Willow/Judge Sissons Stream	1	inundated vegetation	-	-	-	-	-	90	10	-	-	0.60	-	-	1.17	90	-	-	-	-	-	-	-	-	-	
		2	inundated vegetation	-	-	-	-	-	90	10	-	-	0.62	-	-	0.84	90	-	-	-	-	-	-	-	-		
		3	inundated vegetation	-	-	-	-	-	90	10	-	-	0.74	-	-	1.49	90	-	-	-	-	-	-	-	-		
		4	inundated vegetation	-	-	-	-	-	100	-	-	-	0.67	-	-	1.30	90	-	-	-	-	-	-	-	-		
		5	inundated vegetation	-	-	-	-	-	100	-	-	-	0.86	-	-	1.15	90	-	-	-	-	-	-	-	-		
		6	inundated vegetation	40	-	-	-	20	40	-	-	-	0.55	-	-	0.57	90	-	-	-	-	-	-	-	-		
		7	inundated vegetation	80	-	-	-	20	-	-	-	-	0.92	-	-	0.35	90	-	-	-	-	-	-	-	-		
Lower Lake	Mushroom/ End Grid Stream	1	inundated vegetation	-	-	10	-	10	30	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		2	inundated vegetation	-	-	80	-	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		End	inundated vegetation	-	-	80	-	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	End Grid/Shack Stream	1	undercut bank/inundated vegetation	-	-	-	-	-	70	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		3	inundated vegetation	-	-	-	40	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		5	inundated vegetation	70	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		7	inundated vegetation	70	-	25	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Cigar/ Lunch Stream	1	inundated vegetation	-	-	-	-	10	80	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		2	undercut bank/inundated vegetation	-	-	-	-	-	60	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		3	inundated vegetation	-	-	80	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		4	inundated vegetation	-	-	-	-	10	30	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		5	undercut bank/inundated vegetation	-	-	40	-	20	20	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		6	undercut bank/inundated vegetation	-	-	-	-	40	40	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		End	inundated vegetation	-	-	-	-	10	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Knee/ Lunch Stream	1	inundated vegetation	-	-	-	80	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		2	undercut bank/inundated vegetation	-	-	-	-	-	70	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		End	undercut bank/inundated vegetation	-	-	-	-	-	80	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Lunch/ Andrew Stream	1	inundated vegetation	-	-	-	-	-	60	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		2	inundated vegetation	-	-	90	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Andrew/ Shack Stream	1	inundated vegetation	-	-	-	-	-	60	40	-	-	0.74	-	-	0.79	0	0.65	-	-	0.87	0	0.50	-	-	0.59	0
		2	inundated vegetation	-	-	-	-	-	60	35	-	5	0.47	-	-	0.77	0	0.47	-	-	1.08	0	0.40	-	-	0.56	0
		3	inundated vegetation	-	-	-	-	10	40	50	-	-	0.65	-	-	0.96	0	0.55	-	-	0.91	0	0.75	-	-	0.53	60
		End	inundated vegetation	-	-	80	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Shack/Lower Stream	1	undercut bank/inundated vegetation/overhanging vegetation/ledge	-	-	-	-	-	40	60	-	-	0.59	-	-	0.51	0	0.83	-	-	0.75	0	0.60	-	-	0.54	0
		2	undercut bank/inundated vegetation/overhanging vegetation/ledge	-	-	-	-	-	40	60	-	-	0.69	-	-	0.75	30-Right	0.39	-	-	0.26	30-Right	0.48	-	-	0.23	0
		3	undercut bank/inundated vegetation/overhanging vegetation/ledge	-	-	-	-	-	20	80	-	-	0.52	-	-	0.42	0	To much vegetation.					0.83	0.96	0.64	-	0
		4	undercut bank/overhanging vegetation/ledge	-	-	-	-	-	60	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		5	-	-	-	80	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		6	inundated vegetation	-	-	-	5	-	60	35	-	-	0.80	1.09	1.30	-	0	0.75	-	-	0.58	0	0.70	-	-	0.40	0
		7	inundated vegetation/ledge	-	-	-	60	-	10	30	-	-	To deep to wade.														
		8	undercut bank/inundated vegetation/ledge	10	-	-	40	-	20	30	-	-	To deep to wade.														
		9	undercut bank/inundated vegetation/ledge	-	-	-	P	-	-	P	-	-	To deep to wade.														
		10	undercut bank/inundated vegetation/ledge	-	-	-	P	-	-	-	-	-	To deep to wade.														
		11	undercut bank/inundated vegetation/ledge	10	-	-	20	-	40	30	-	-	To deep to wade.														
		12	undercut bank/inundated vegetation/ledge	5	-	-	-	-	35	60	-	-	0.45	-	-	0.60	0	0.43	-	-	0.56	0	0.40	-	-	0.58	0
		13	undercut bank/inundated vegetation	5	-	-	-	5	30	60	-	-	0.65	-	-	0.36	0	0.75	-	-	0.50	0	0.75	-	-	0.30	10-Left
		14	undercut bank/inundated vegetation/ledge	5	-	-	-	5	30	60	-	-	0.55	-	-	0.15	20-Left	0.55	-	-	0.30	0	0.42	-	-	0.71	0
		15	undercut bank/inundated vegetation/ledge	10	-	-	20	10	20	40	-	-	To deep to wade.														
		16	-	P	-	-	P	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		17	undercut bank/inundated vegetation/ledge	5	-	-	-	-	55	40	-	-	To deep to wade.														
		18	-	P	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		19	undercut bank/inundated vegetation/overhanging vegetation/ledge	10	-	-	70	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		21	undercut bank/inundated vegetation/overhanging vegetation/ledge	-	-	-	70	20	-	10	-	-	To deep to wade.														
		22	inundated vegetation	-	-	-	5	5	30	60	-	-	To deep to wade.														
		23	inundated vegetation	-	-	-	-	-	30	70	-	-	To deep to wade.														
		24	inundated vegetation	-	-	-	-	-	30	70	-	-	To deep to wade.														
		25	undercut bank/inundated vegetation	-	-	-	-	70	30	-	-	-	To deep to wade.														
		26	inundated vegetation	-	-	-	-	-	30	70	-	-	To deep to wade.														
		27	undercut bank/inundated vegetation	-	-	-	-	-	30	70	-	-	To deep to wade.														
		28	inundated vegetation	10	-	10	70	5	-	5	-	-	To deep to wade.														

Table X.VIII-2
Detailed Stream Habitat information Collected in the Kiggavik Project Area, 2008 and 2010

Sub-Basin	Watercourse	Channel Unit #	Overhead Cover Present	Substrate (%)								1/4 Width					1/2 Width					3/4 Width					
												Velocity (m/s)					Velocity (m/s)					Velocity (m/s)					
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Boulder Garden	Depth (m)	20%	80%	60%	Angle (°)	Depth (m)	20	80	60	Angle (°)	Depth (m)	20	80	60	Angle (°)
Lower Lake	Lower/Judge Sissons Stream	1	inundated vegetation	-	-	40	-	-	40	20	-	-	0.65	-	-	0.07	0	0.73	-	-	0.16	0	0.71	-	-	0.10	0
		2	inundated vegetation	-	-	-	-	20	60	20	-	-	0.45	-	-	0.43	0	0.55	-	-	0.39	0	0.40	-	-	0.61	30
		3	inundated vegetation	50	-	-	-	-	30	20	-	-	0.15	-	-	0.46	0	0.73	-	-	1.13	0	0.30	-	-	0.86	0
		End	inundated vegetation	70	-	-	-	-	20	10	-	-	-	-	-	-	-	0.70	-	-	0.63	0	-	-	-	-	-
Caribou Lake	Fox/ Caribou Stream	1	inundated vegetation	10	-	-	-	-	80	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		2	inundated vegetation	-	-	-	-	-	70	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		3	inundated vegetation	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Caribou/ Calf Stream	1	inundated vegetation	-	-	-	-	-	10	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		2	inundated vegetation	-	-	-	-	-	80	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Calf/Judge Sissons Stream	1	inundated vegetation	-	-	-	10	40	40	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		2	inundated vegetation	-	-	-	60	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

= number; m = metre; Y = yes; N = no; mm = millimetre; > = greater than; < = less than; % = percent; m/s = metres per second; ° = degrees; - = not applicable.

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish <60 mm	Medium Fish 61-150 mm	Large Fish >150 mm	
Km 2.0	NC31 (Mushroom/End Grid Stream)	1	106	7135890	554709	108	7135996	554528	run class 3	210	210	0.3	18.6	1.5	N	60	20	5	substrate; depth/turbulence
		2	108	7135996	554528	113	7136731	554165	run class 3	1103	1313	0.2	5.2	1.0	N	25	10	5	-
		End	113	7136731	554165	-	-	-	-	-	-	0.3	6.2	6.2	N	25	25	10	-
Km 2.9	NC30.5 (no map)	1	155	7136675	554979	156	7136651	555059	no visible channel	-	-	-	-	-	-	-	-	-	-
		2	156	7136651	555059	157	7136651	555099	backwater	40	40	0.3	30	30	N	80	60	5	substrate; submergent vegetation; emergent vegetation
		3	157	7136651	555099	158	7136639	555192	no visible channel	-	-	-	-	-	-	-	-	-	-
		4	158	7136639	555192	159	7136627	555236	backwater	35	75	0.5	45	95	N	90	65	10	substrate
		5	159	7136627	555236	160	7136578	555291	no visible channel	-	-	-	-	-	-	-	-	-	-
Km 6.7	NC30	1	62	7138272	558416	63	7138279	558416	riffle	8	8	0.1	0.5	1.0	N	5	0	0	substrate; submergent vegetation; emergent vegetation
		2	63	7138279	558416	64	7138338	558424	run class 3	60	68	0.4	1.0	1.5	N	10	0	0	substrate; submergent vegetation; emergent vegetation
		3	64	7138338	558424	65	7138360	558427	flat	22	90	1.1	7.0	8.0	N	20	10	5	substrate; depth/turbulence; submergent vegetation; emergent vegetation
		4	65	7138360	558427	66	7138392	558439	run class 3	34	124	0.4	1.0	1.5	N	5	2.5	0	substrate
Km 11.3	NC29	1a	63	7141411	560232	64	7141480	560227	riffle/boulder garden	70	70	0.3	11.1	11.1	N	60	0	0	substrate; turbidity; emergent vegetation
		1b	64	7141480	560227	65	7141494	560213	riffle/boulder garden	20	90	0.3	13.0	13.5	N	60	10	0	substrate
		1c	65	7141494	560213	66	7141549	560147	riffle/boulder garden	90	180	0.2	8.0	9.5	N	60	0	0	substrate; turbidity; emergent vegetation
		2	66	7141549	560147	68	7141603	560096	flat	75	255	0.3	19.0	19.0	N	0	0	0	-
		3	68	7141603	560096	69	7141625	560090	riffle	20	275	0.1	12.0	12.0	N	0	0	0	turbidity
		4	69	7141625	560090	70	7141648	560076	flat	26	301	0.1	14.0	14.0	N	0	0	0	substrate; emergent vegetation
		5	70	7141648	560076	71	7141667	560042	riffle	39	340	0.2	17.0	17.0	N	20	0	0	substrate; turbidity
		6	71	7141667	560042	74	7141749	559993	flat	100	440	0.2	23.0	23.0	N	40	0	0	substrate
		7	74	7141749	559993	75	7141750	559969	boulder garden/riffle	50	490	0.2	22.0	22.0	N	40	0	0	substrate; emergent vegetation
		8	75	7141750	559969	78	7141751	559891	flat	20	510	0.2	16.0	15.0	N	0	0	0	substrate; emergent vegetation
		9	78	7141751	559891	79	7141776	559839	run class 3	55	565	0.2	6.0	7.0	N	40	0	0	substrate; emergent vegetation
		10	79	7141776	559839	80	7141781	559805	flat	35	600	0.3	20.0	15.0	N	40	20	0	substrate; submergent vegetation; emergent vegetation
Km 14.1	NC28 (no map)	NVC	NC28	7143798	561623	-	-	-	dry	-	-	-	-	-	-	-	-	-	-
Km 15.6	NC27	1	42	7144996	562607	43	7145001	562597	pool class 3	10	10	0.5	15	15	N	90	50	50	substrate; emergent vegetation
		2	43	7145001	562597	44	7145002	562590	flat	5	15	0.1	0.4	0.5	N	10	0	0	emergent vegetation
		3	44	7145002	562590	45	7145004	562589	riffle	2	17	0.1	0.4	0.5	N	0	0	0	emergent vegetation
		4	45	7145004	562589	46	7145016	562567	flat/riffle	30	47	0.2	0.6	0.6	N	90	0	0	substrate; emergent vegetation
		5	46	7145016	562567	48	7145079	562502	flat	90	137	0.2	0.4	0.5	N	0	0	0	emergent vegetation
		6	48	7145079	562502	49	7145081	562501	pool class 3	2	139	0.2	0.5	0.5	N	20	10	0	-
		7	49	7145081	562501	50	7145088	562486	flat	17	156	0.1	0.3	0.3	N	0	0	0	-
		8	50	7145088	562486	51	7145122	562456	flat	50	206	0.2	0.5	4.0	N	0	0	0	substrate
		9	51	7145122	562456	52	7145126	562451	pool class 3	5	211	0.3	1.0	1.0	N	90	20	0	substrate
		10	52	7145126	562451	53	7145141	562440	flat/riffle	18	229	0.2	0.6	0.6	N	20	0	0	substrate
		11	53	7145141	562440	54	7145150	562434	flat	10	239	0.2	1.2	1.2	N	20	0	0	emergent vegetation
		12	54	7145150	562434	55	7145160	562434	pool class 3	11	250	0.4	1.0	1.0	N	60	10	0	substrate
		13	55	7145160	562434	57	7145224	562392	flat	76	326	0.3	1.0	1.0	N	0	0	0	emergent vegetation
		14	57	7145224	562392	58	7145229	562390	riffle	5	331	0.1	0.3	1.0	N	0	0	0	substrate; emergent vegetation
		15a	58	7145229	562390	59	7145268	562315	flat	84	415	0.2	0.6	0.6	N	20	0	0	emergent vegetation
		15b	59	7145268	562315	41	7145263	562231	flat	83	498	0.1	5.0	-	N	10	0	0	emergent vegetation
		15c	41	7145263	562231	61	7145275	562142	flat	90	588	0.1	0.5	0.5	N	10	0	0	emergent vegetation
Km 17.2	NC26	1	38	7146448	563151	39	7146439	563142	riffle	13	13	0.35	4	10	N	30	10	2.5	substrate
		2	39	7146439	563142	40	7146430	563125	run class 3	20	33	0.5	1.5	2	N	30	10	1	substrate
		3	40	7146430	563125	41	7146428	563119	riffle	5	38	0.2	1.5	2	N	10	2	0	substrate
		4	41	7146428	563119	42	7146428	563109	run class 3	10	48	0.4	2.0	2.5	N	20	5	1	substrate
		5	42	7146428	563109	43	7146424	563088	riffle	20	68	0.2	2.5	3.0	N	20	5	1	substrate
		6	43	7146424	563088	44	7146416	563059	run class 3	30	98	0.7	2.0	2.5	N	30	2.5	1	substrate
		7	44	7146416	563059	48	7146494	562932	riffle	150	248	0.3	2.0	2.5	N	10	2	0	substrate; emergent vegetation
		8	48	7146494	562932	49	7146503	562931	run class 3	5	253	0.4	2.2	2.5	N	15	5	0	substrate; emergent vegetation
		9	49	7146503	562931	54	7146779	562776	riffle	320	573	0.4	2.0	2.5	N	10	5	0	substrate; emergent vegetation
		10	54	7146779	562776	55	7146889	563794	pond	113	686	> 1	-	-	-	-	-	-	-
		11	55	7146889	563794	56	7146907	562790	run class 3	18	704	0.6	0.8	1.0	N	25	10	0	substrate
		12	56	7146907	562790	57	7146941	562799	riffle	34	738	0.3	1.5	2.5	N	10	5	0	substrate
		13	57	7146941	562799	58	7146976	562879	run class 3	87	825	0.3	2.0	2.5	N	10	5	0	substrate
		14	58	7146976	562879	59	7146964	562907	riffle	30	855	0.4	2.0	4.0	N	10	5	0	substrate
		15	59	7146964	562907	60	7147034	562986	riffle/boulder garden	104	959	0.4	2.0	8.0	N	5	2	0	substrate
		16	60	7147034	562986	61	7147060	562998	riffle	30	989	0.3	1.7	2.5	N	10	2	0	substrate
Km 19.6	NC25 (no map)	NVC	37	7147720	564605	-	-	-	dry	-	-	-	-	-	-	-	-	-	-

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish <60 mm	Medium Fish 61-150 mm	Large Fish >150 mm	
Km 100.2	NC24	1a	31	7148052	565521	32	7148091	565450	dry	81	81	0	0	0	N	0	0	0	-
		1b	32	7148091	565450	33	7148142	565421	dry	58	139	0	0	1	N	0	0	0	-
		2	33	7148142	565421	34	7148226	565310	pool class 3	139	278	0.3	3	3	N	0	0	0	-
		3	34	7148226	565310	35	7148272	565188	flat	130	408	0.3	0.50	0.6	N	0	0	0	emergent vegetation
		4	35	7148272	565188	36	7148306	565131	dry	67	475	0	0	0	N	0	0	0	-
Km 103.4	NC23.5/NC33 (no map)	NVC	28	7150990	566633	-	-	-	dry	-	-	-	-	-	-	-	-	-	-
Km 107.8	NC23	1	82	7153434	570398	83	7153419	570402	flat	15	15	0.3	0.8	0.8	N	20	0	0	substrate
		2	83	7153419	570402	84	7153391	570396	riffle	30	45	0.1	0.7	0.9	N	0	0	0	substrate
		3	84	7153391	570396	85	7153381	570392	underground	10	55	-	-	-	-	-	-	-	-
		4	85	7153381	570392	86	7153371	570392	flat	10	65	0.1	0.4	0.5	N	10	0	0	emergent vegetation
		5	86	7153371	570392	87	7153369	570395	riffle	5	70	0.1	0.3	1.2	N	0	0	0	-
		6	87	7153369	570395	88	7153353	570400	flat	20	90	0.1	0.2	0.2	N	10	0	0	emergent vegetation
		7	88	7153353	570400	89	7153342	570402	riffle	10	100	0.1	0.3	0.3	N	20	0	0	substrate
		8	89	7153342	570402	90	7153309	570406	flat	35	135	0.3	0.4	0.5	N	20	0	0	emergent vegetation
		9	90	7153309	570406	91	7153300	570407	riffle	10	145	0.1	0.3	0.8	N	10	0	0	substrate
		10	91	7153300	570407	92	7153242	570418	flat	60	205	0.4	0.5	0.5	N	20	0	0	emergent vegetation
		11	92	7153242	570418	93	7153232	570418	pool class 3	10	215	0.4	2.3	2.3	N	100	50	10	-
		12	93	7153232	570418	94	7153152	570468	run class 3/riffle	95	310	0.3	0.6	0.6	N	10	0	0	emergent vegetation
		13	94	7153152	570468	95	7152999	570491	flat	155	465	0.7	0.5	0.5	N	20	0	0	emergent vegetation
		14	95	7152999	570491	96	7152879	570500	run class 3	125	590	0.1	0.5	0.5	N	10	0	0	emergent vegetation
		15	96	7152879	570500	97	7152825	570483	flat	53	643	0.3	0.8	0.8	N	10	0	0	emergent vegetation
		16	97	7152825	570483	98	7152767	570445	pond	70	713	> 1	50	50	N	-	-	-	-
		17	98	7152767	570445	99	7152722	570439	flat	50	763	0.3	1.0	1.0	N	10	0	0	emergent vegetation
		18	99	7152722	570439	100	7152618	570508	riffle	125	888	0.3	0.5	0.5	N	20	0	0	submergent vegetation; emergent vegetation
		19	100	7152618	570508	101	7152557	570536	flat	65	953	0.6	0.5	0.5	N	10	0	0	emergent vegetation
Km 108.8	NC22.7/NC34	1	75	7152664	571743	76	7152643	571706	riffle	43	43	0.3	0.5	1.5	N	80	50	0	substrate; submergent vegetation; emergent vegetation
		2	76	7152643	571706	77	7152623	571651	dry	59	102	-	-	0.5	-	-	-	-	-
		3	77	7152623	571651	78	7152606	571630	flat	26	128	0.3	0.5	1.0	N	30	0	0	substrate; submergent vegetation; emergent vegetation
		4	78	7152606	571630	79	7152511	571417	dry	232	360	-	-	1.0	-	-	-	-	-
Km 109.8	NC22.5/NC32	1	67	7152159	572306	69	7152243	572310	flat	83	83	0.40	2.5	3.5	N	10	5	0	substrate; emergent vegetation
		2	69	7152243	572310	71	7152379	572305	run class 3	135	218	0.20	0.5	3.5	N	10	2	0	substrate; emergent vegetation
		3	71	7152379	572305	-	-	-	lake	350	568	unknown	75	75	N	10	5	0	substrate
		4	-	-	-	-	-	-	flat	10	578	0.1	2	2	N	5	0	0	-
alternate NC22	NC22 (no map)	NVC	-	7152919	572399	-	-	-	dry	-	-	-	-	-	-	-	-	-	-
alternate NC21	NC21 (no map)	NVC	20	7153017	572432	-	-	-	dry	-	-	-	-	-	-	-	-	-	-
alternate NC20	NC20 (no map)	NVC	19	7153256	572577	-	-	-	dry	-	-	-	-	-	-	-	-	-	-
Km 112.9	NC19 (no map)	NVC	27	7153551	574831	-	-	-	dry	-	-	-	-	-	-	-	-	-	-
alternate NC18	NC18	1	111	7151295	581891	-	-	-	flat	80	80	0.2	1.5	1.5	N	0	0	0	-
		2	-	-	-	115	7151571	582112	dry	160	240	-	-	19.5	Y	-	-	-	-
		3	115	7151571	582112	117	7151722	582195	no visible channel	150	390	-	-	-	-	-	-	-	-
		4	117	7151722	582195	-	-	-	pond	100	490	unknown	100	100	N	-	-	-	-
alternate NC17	NC17	1	120	7150480	584791	122	7150514	584760	run class 3	45	45	0.3	0.8	0.8	N	10	0	0	emergent vegetation
		2	122	7150514	584760	123	7150528	584750	riffle/pool class 3	15	60	0.5	0.5	0.5	N	50	0	0	emergent vegetation
		3	123	7150528	584750	124	7150543	584737	run class 3	20	80	0.5	0.5	0.5	N	10	0	0	emergent vegetation
		4	124	7150543	584737	125	7150566	584731	flat	23	103	0.2	0.7	2.0	N	0	0	0	emergent vegetation
		5	125	7150566	584731	126	7150614	584714	run class 3	50	153	0.3	0.3	0.3	N	10	0	0	emergent vegetation
		6	126	7150614	584714	127	7150622	584708	riffle/pool class 3	7	160	0.2	0.2	0.2	N	0	0	0	emergent vegetation
		7	127	7150622	584708	128	7150643	584699	run class 3	20	180	0.1	1.0	1.0	N	0	0	0	emergent vegetation
		8	128	7150643	584699	129	7150653	584691	flat	15	195	0.4	1.2	1.5	N	10	0	0	emergent vegetation
		9	129	7150653	584691	130	7150669	584660	run class 3	35	230	0.1	0.5	0.5	N	0	0	0	emergent vegetation
		10	130	7150669	584660	131	7150671	584648	flat	10	240	0.3	1.0	1.0	N	0	0	0	-
		11	131	7150671	584648	132	7150665	584642	run class 3	10	250	0.1	0.5	2.0	N	0	0	0	-

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish <60 mm	Medium Fish 61-150 mm	Large Fish >150 mm	
alternate NC17	NC17	12	132	7150665	584642	133	7150663	584620	flat	20	270	0.3	1.0	1.0	N	10	0	0	-
		13	133	7150663	584620	134	7150657	584568	run class 3	60	330	0.3	0.5	0.5	N	0	0	0	-
		14	134	7150657	584568	135	7150649	584554	riffle	15	345	0.2	0.8	0.8	N	10	0	0	-
		15	135	7150649	584554	136	7150654	584507	run class 3	70	415	0.4	0.5	0.5	N	10	0	0	-
		16	136	7150654	584507	137	7150682	584446	flat	80	495	0.7	2.0	2.0	N	10	0	0	emergent vegetation
		17	137	7150682	584446	138	7150715	584405	run class 3	60	555	0.4	0.7	0.7	N	10	0	0	-
		18	138	7150715	584405	139	7150706	584392	riffle	15	570	0.2	0.3	0.3	N	0	0	0	-
		19	139	7150706	584392	140	7150712	584368	run class 3	25	595	0.3	0.4	0.4	N	10	0	0	emergent vegetation
Km 127.5	NC16	20	140	7150712	584368	141	7150788	584374	flat	90	685	0.4	0.7	0.7	N	10	0	0	emergent vegetation
		1	80	7153063	586255	81	7153211	586366	flat	190	190	1.0	8	10	Y	85	80	60	submergent vegetation; emergent vegetation
		2	81	7153211	586366	82	7153261	586400	run class 2	60	250	0.6	4	5	N	95	85	70	substrate; submergent vegetation; emergent vegetation
		3	82	7153261	586400	83	7153374	586437	flat	120	370	0.65	4	6	N	95	85	65	submergent vegetation; emergent vegetation
		4	83	7153374	586437	84	7153402	586449	run class 3	30	400	0.40	1	1.5	N	70	50	30	substrate; submergent vegetation; emergent vegetation
		5	84	7153402	586449	85	7153429	586443	flat	30	430	0.30	2	2.5	N	75	50	35	substrate; submergent vegetation; emergent vegetation
		6	85	7153429	586443	86	7153452	586477	run class 3	40	470	0.40	2.5	2.5	N	75	50	30	substrate; submergent vegetation; emergent vegetation
		7	86	7153452	586477	87	7153467	586487	flat	20	490	0.75	20	21	N	90	75	50	substrate; submergent vegetation; emergent vegetation
		8	87	7153467	586487	88	7153547	586427	run class 3	100	590	0.30	1	1	N	75	40	5	substrate; submergent vegetation; emergent vegetation
		9	88	7153547	586427	89	7153559	586416	flat	18	608	0.40	10	11	N	85	65	10	substrate; submergent vegetation; emergent vegetation
		10	89	7153559	586416	90	7153651	586285	run class 3	160	768	0.30	0.5	1	N	85	60	0	substrate; submergent vegetation; emergent vegetation
		11	90	7153651	586285	91	7153749	586269	flat	100	868	0.40	3	5	N	90	80	15	substrate; submergent vegetation; emergent vegetation
Km 129.2	NC15	12	91	7153749	586269	92	7153829	586305	run class 3	87	955	0.20	1	1.5	N	75	40	0	emergent vegetation
		1	96	7154180	588340	97	7154216	588269	riffle	80	80	1.0	26	38	N	80	95	80	substrate; depth/turbulence
		2	97	7154216	588269	98	7154245	588214	run class 3	60	140	0.5	23	33	N	85	95	85	substrate; depth/turbulence
		3	98	7154245	588214	99	7154278	588151	riffle	72	212	0.5	25	40	N	85	95	80	substrate; depth/turbulence
		4	99	7154278	588151	100	7154298	588115	run class 2	40	252	0.7	11	38	N	85	95	85	substrate; depth/turbulence
		5a	99	7154278	588151	100	7154298	588115	run class 3	40	292	0.3	23	38	N	80	90	70	substrate; depth/turbulence
		5b	100	7154298	588115	101	7154323	588069	run class 3	48	340	0.4	20	32	N	85	95	80	substrate; depth/turbulence
		6	101	7154323	588069	102	7154293	588017	riffle	60	400	0.4	15	30	N	90	95	90	substrate; depth/turbulence
		7	102	7154293	588017	103	7154272	587972	run class 2	50	450	0.7	25	40	N	95	95	95	substrate; depth/turbulence
		8	103	7154272	587972	104	7154289	587934	run class 3	42	492	0.4	13	33	N	90	95	85	substrate; depth/turbulence
		9	104	7154289	587934	105	7154356	587863	riffle	98	590	0.3	16	36	N	85	90	80	substrate; depth/turbulence
		10	105	7154356	587863	109	7154384	587830	run class 3	40	630	0.5	20	37	N	95	95	90	substrate; depth/turbulence
		11	109	7154384	587830	110	7154464	587794	riffle	87	717	0.4	11	17	N	90	90	85	substrate; depth/turbulence
		12	110	7154464	587794	111	7154520	587756	run class 3	67	784	0.6	18	22	N	95	95	95	SUB
		13	111	7154520	587756	112	7154539	587740	riffle	24	808	0.3	17	21	N	90	95	85	substrate; depth/turbulence
		14	112	7154539	587740	113	7154621	587656	run class 3	117	925	0.5	15	20	N	95	95	90	SUB
Km 130.1	NC14.5	15	113	7154621	587656	114	7154667	587580	riffle	90	1015	0.4	8	15	N	90	95	90	substrate; depth/turbulence
		16	114	7154667	587580	115	7154740	587484	run class 1	120	1135	1.10	12	20	N	95	95	95	SUB
		1	118	7154748	589098	-	-	-	no visible channel	400	400	-	-	-	-	-	-	-	-
		2	-	-	-	-	-	-	dry	80	480	-	-	-	-	-	-	-	-
		3	-	-	-	-	-	-	pool class 3	50	530	0.5	35	35	N	-	-	-	-
Km 131.3	NC14	4	-	-	-	-	-	-	dry	10	540	-	-	-	-	-	-	-	-
		5	-	-	-	119	7155133	588491	pool class 3	160	700	0.75	140	140	N	-	-	-	-
		1	120	7155408	589427	121	7155440	589406	flat	122	122	0.1	0.25	0.25	N	5	0	0	emergent vegetation
		1a	125	7148193	599679	126	7148318	599580	run class 3	45	45	0.5	6	6.5	N	85	80	20	substrate; submergent vegetation; emergent vegetation
		1b	126	7148318	599580	128	7148418	599543	run class 3	106	151	0.5	2	2	N	90	90	30	substrate; submergent vegetation; emergent vegetation
		2	128	7148418	599543	129	7148432	599545	riffle	14	165	0.3	2	2	N	80	60	10	substrate; submergent vegetation; emergent vegetation
		3	129	7148432	599545	130	7148549	599479	flat	133	298	0.6	4	4	N	95	90	50	substrate; turbidity; submergent vegetation; emergent vegetation
		4	130	7148549	599479	131	7148579	599464	riffle	36	334	0.3	3	3	N	80	60	20	substrate; submergent vegetation; emergent vegetation
Km 145.3	NC13	5	131	7148579	599464	132	7148620	599446	run class 3	45	379	0.5	3	3	N	90	80	60	substrate; submergent vegetation; emergent vegetation
		6	132	7148620	599446	134	7148631	599439	riffle	11	390	0.3	2	2	N	85	70	10	substrate; emergent vegetation
		7	134	7148631	599439	135	7148760	599353	run class 3	151	541	0.6	2	2.5	N	95	90	40	substrate; submergent vegetation; emergent vegetation
		1	140	7148880	600957	141	7149625	600880	run class 3	747	747	0.2	0.5	0.5	N	95	70	15	substrate; submergent vegetation; emergent vegetation
		2	141	7149625	600880	144	7149682	600863	flat	60	807	0.4	8	8	N	95	70	10	submergent vegetation; emergent vegetation
		3	144	7149682	600863	143	7149830	600649	run class 2	140	947	1.0	0.5	0.5	N	95	95	20	substrate; submergent vegetation; emergent vegetation
		4	145	7149682	600872	146	7149777	600848	run class 3	96	-	0.3	0.5	0.5	N	95	90	10	substrate; submergent vegetation; emergent vegetation
Km 147.1	NC12	1a	19	7149022	601648	20	7149109	601593	flat	100	100	0.05	1	5	N	10	5	0	emergent vegetation
		1b	20	7149109	601593	21	7149143	601456	flat	142	242	0.05	1	3	N	10	5	0	emergent vegetation
		2	21	7149143	601456	22	7149173	601408	pool class 2	60	302	~1.00	60	75	N	40	25	20	emergent vegetation
		3	22	7149173	601408	23	7149239	601388	flat	70	372	0.25	4	6	N	50	25	5	substrate; emergent vegetation
		4	23	7149239	601388	24	7149292	601329	pool class 2	80	452	~1.00	70	75	N	45	25	20	-
		5a	24	7149292	601329	25	7149332	601257	flat	82	534	0.15	1.5	15	N	30	15	0	emergent vegetation
		5b	25	7149332	601257	26	7149420	601141	flat	140	674	0.30	1.5	12	N	50	20	0	emergent vegetation
		5c	26	7149420	601141	27	7149457	601069	flat	80	754	0.30	2.0	10	N	40	15	0	emergent vegetation
Km 147.6	NC11.5	6	27	7149457	601069	28	7149535	601001	pool class 2	103	857	~1.00	120	125	N	85	50	25	substrate; submergent vegetation; emergent vegetation

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New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish <60 mm	Medium Fish 61-150 mm	Large Fish >150 mm	
Km 154.8	NC11 (no map)	NVC	NC11	7150666	607309	-	-	-	dry	-	-	-	-	-	-	-	-	-	-
Km 157.3	NC10	1	2	7150832	609695	3	7150540	609783	run class 3	300	300	0.75	100	105	N	90	70	35	substrate; submergent vegetation; emergent vegetation
Km 157.7	NC09	1a	7	7150606	609942	15	7150659	609975	snye	64	64	0.5	12	30	N	90	80	30	substrate; submergent vegetation; emergent vegetation
		1b	15	7150659	609975	14	7150689	609995	snye	32	96	0.3	8	10	N	95	80	15	substrate; submergent vegetation; emergent vegetation
		2	14	7150689	609995	8	7150719	610010	flat	32	128	0.3	1	30	N	40	15	0	substrate; emergent vegetation
		3	8	7150719	610010	9	7150756	609993	dry	42	170	0.0	dry	dry	-	-	-	-	-
		4	9	7150756	609993	11	7150790	609978	pool class 3	36	206	0.2	0.50	1	N	50	10	0	substrate; emergent vegetation
		5	11	7150790	609978	16	7150843	609981	pool class 3	53	259	0.4	4	40	N	70	40	10	substrate; emergent vegetation
		6	16	7150843	609981	17	7150896	609987	pool class 3	53	312	0.3	1.5	40	N	80	40	5	substrate; emergent vegetation
7	17	7150896	609982	-	7150929	609988	dry	33	345	0.00	dry	dry	-	-	-	-	-	-	
Km 159.5	NC08 (no map)	NVC	26	7150342	611727	-	-	-	dry	-	-	-	-	-	-	-	-	-	-
Km 161.5	NC07 (no map)	NVC	25	7149702	613597	-	-	-	dry	-	-	-	-	-	-	-	-	-	-
Km 163.2	NC06 (no map)	NVC	24	7150290	615149	-	-	-	dry	-	-	-	-	-	-	-	-	-	-
Km 168.0	NC05 (no map)	NVC	23	7148209	619381	-	-	-	dry	-	-	-	-	-	-	-	-	-	-
Km 171.2	NC04 (no map)	NVC	22	7146830	622080	-	-	-	dry	-	-	-	-	200	-	-	-	-	-
Km 172.2	NC03	1a	24	7146484	623283	25	7146467	623258	flat	40	40	0.20	1.0	1.0	N	50	0	0	emergent vegetation
		1b	25	7146467	623258	26	7146464	623223	flat	30	70	0.10	3.0	3.0	N	30	0	0	emergent vegetation
		1c	26	7146464	623223	27	7146450	623168	flat	110	180	0.20	1.0	1.0	N	50	0	0	emergent vegetation
		1d	27	7146450	623168	28	7146472	623051	flat	120	300	0.25	1.0	1.0	N	50	0	0	emergent vegetation
		1e	28	7146472	623051	31	7146424	622780	flat	100	400	0.25	1.0	1.0	N	50	0	0	emergent vegetation
		2	31	7146424	622780	-	-	-	pool class 3	5	405	0.80	5.0	5.0	N	70	20	0	depth/turbulence
		3	-	-	-	32	7146422	622735	flat	50	455	0.20	1.0	1.0	N	50	0	0	emergent vegetation
		4	32	7146422	622735	33	714607	622733	pool class 3	5	460	0.60	4.0	4.0	N	50	10	0	-
		5	33	714607	622733	-	-	-	pool class 2	10	470	1.0	5.0	5.0	N	70	20	0	depth/turbulence
		6	-	-	-	34	7146403	622723	flat	5	475	0.2	1.0	1.0	N	50	0	0	emergent vegetation
		7	34	7146403	622723	-	-	-	pool class 3	10	485	0.95	5.0	5.0	N	50	20	0	depth/turbulence
		8	-	-	-	35	7146417	622693	flat	25	510	0.3	1.0	1.0	N	50	0	0	emergent vegetation
		9	35	7146417	622693	-	-	-	pool class 3	10	520	0.9	4.0	4.0	N	70	20	0	depth/turbulence
		10	-	-	-	36	7146410	622680	flat	10	530	0.3	1.0	1.0	N	50	0	0	emergent vegetation
		11	36	7146410	622680	-	-	-	pool class 3	10	540	0.8	4.0	4.0	N	70	20	0	depth/turbulence
12	-	-	-	37	7146405	622622	flat	50	590	0.4	1.0	1.0	N	50	0	0	emergent vegetation		
13	37	7146405	622622	-	-	-	pool class 3	10	600	0.8	5.0	5.0	N	70	20	0	depth/turbulence		
14	-	-	-	39	7146362	622533	flat	100	700	0.4	1.0	1.0	N	50	0	0	emergent vegetation		
Km 174.3	NC02	1a	15	7145564	624277	16	7145554	624270	dry	13	13	0.0	-	4.0	N	-	-	-	-
		1b	16	7145554	624270	18	7145531	624223	dry	53	66	0.0	-	1.0	N	-	-	-	-
		1c	18	7145531	624223	19	7145489	624164	dry	72	138	0.0	-	0.5	N	-	-	-	-
		1d	19	7145489	624164	20	7145472	624157	dry	15	153	0.0	-	0.3	N	-	-	-	-
		1e	20	7145472	624157	21	7145414	624144	dry	61	214	0.0	-	0.4	N	-	-	-	-
		1f	21	7145414	624144	22	7145287	624068	dry	150	364	0.0	-	0.3	N	-	-	-	-
Km 174.8	Thelon River - NC01 (including former crossing X18 from 2008)	1a	8	7144336	624918	13	7144826	624802	run class 1	600	600	5.6	350	360	Y	90	80	80	substrate; depth/turbulence
		1b	78	7144888	624780	83	7146625	623797	run class 1	2,000	2,600	7.5	300-500	330-530	Y	80	60	80	substrate; depth/turbulence
		1c	X18-83us	7146625	623797	83	7146822	623747	run class 1	200	2,800	4.0	460	510	N	90	80	80	substrate; depth/turbulence
		1d	83	7146822	623747	84	7146900	623719	run class 1	85	2,885	3.0	380	390	N	90	80	80	substrate; depth/turbulence
		2	83	7146822	623747	84	7146900	623719	rapid	85	2,885	0.5	30	45	N	80	60	60	substrate; depth/turbulence
		1e	84	7146900	623719	86	7147220	623741	run class 1	320	3,205	4.7	520	550	N	90	80	80	substrate; depth/turbulence
alternate EC22	EC22	0	95	7143231	625657	X	7143633	625097	run class 1	560	560	4.7	460	520	Y	90	80	80	substrate; depth/turbulence
		1	299	7139238	635673	298	7139211	635697	pond	47	47	0.40	40.0	40.0	N	30	20	0	emergent vegetation
		2	298	7139211	635697	295	7139195	635711	run class 3	27	74	0.30	0.5	0.5	N	40	25	0	depth/turbulence; emergent vegetation
		3	295	7139195	635711	294	7139190	635716	pool class 3	6	80	0.40	4.0	4.0	N	40	10	0	-
		4	293	7139181	635722	279	7139127	635688	run class 3	82	162	0.40	0.6	0.6	N	30	20	0	emergent vegetation
		5	279	7139127	635688	280	7139121	635689	rifle	7	169	0.20	0.4	0.4	N	60	30	0	substrate; depth/turbulence
Km 203.0	EC10	6	280	7139121	635689	288	7139045	635660	run class 3	92	261	0.25	0.5	0.5	N	30	20	0	emergent vegetation
		1	167	7139022	356258	175	7139090	356261	run class 3	94	94	0.50	1.50	1.50	N	50	20	0	substrate; depth/turbulence; emergent vegetation
		2	175	7139090	356261	181	7139186	356253	pond	132	226	0.40	20	15	N	60	30	0	emergent vegetation
		3	181	7139186	356253	182	7139219	356239	run class 3	40	266	0.25	2.50	2.50	N	40	10	0	emergent vegetation
Km 209.4	EC4	1	183	7133879	358867	191	7133908	358878	run class 3	44	44	0.15	0.50	0.5	N	40	10	0	substrate; depth/turbulence; submergent vegetation
		2	191	7133908	358878	192	7133909	358883	flat	5	49	0.20	2.50	2.5	N	30	5	0	substrate
		3	192	7133909	358883	193	7133913	358882	run class 3	5	54	0.12	1.50	1.5	N	30	5	0	substrate; depth/turbulence; emergent vegetation
		4	193	7133913	358882	194	7133918	358882	pool class 3	5	59	0.20	0.75	0.8	N	25	1	0	substrate; depth/turbulence
		5	194	7133918	358882	199	7133935	358894	run class 3	21	80	0.20	1.50	1.5	N	40	10	0	substrate; emergent vegetation
8	199	7133935	358844	202	7133948	358887	pool class 3	16	96	0.25	10	10.0	N	30	10	0	emergent vegetation		

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish <60 mm	Medium Fish 61-150 mm	Large Fish >150 mm	
Km 209.4	EC 4	9	202	7133948	358887	208	7133974	358894	run class 3	36	132	0.22	0.70	0.7	N	45	15	0	substrate
		10	208	7133974	358894	209	7133981	358894	pool class 3	10	142	0.20	1.75	1.8	N	25	5	0	substrate; emergent vegetation
		11	209	7133981	358894	213	7134002	358904	run class 3	28	170	0.15	0.50	0.5	N	50	15	0	substrate; depth/turbulence
		12	213	7134002	358904	214	7134012	358905	pool class 3	11	181	0.15	1.00	1.0	N	60	20	0	substrate; depth/turbulence; emergent vegetation
		13	214	7134012	358905	215	7134015	358907	run class 3	4	185	0.20	0.70	0.7	N	50	10	0	substrate; emergent vegetation
		14	204	7133963	358887	218	7133974	358885	undef	11	11	0.05	-	-	N	90	0	0	emergent vegetation
		15	218	7133974	358885	220	7133994	358889	run class 3	22	33	0.10	0.50	0.5	N	60	10	0	substrate; emergent vegetation
		16	220	7133994	358889	221	7134004	358891	pool class 3	10	43	0.15	1.50	1.5	N	20	1	0	substrate; emergent vegetation
		17	221	7134004	358891	222	7134013	358889	run class 3	10	53	0.10	0.20	0.2	N	90	1	0	substrate; emergent vegetation
		18	222	7134013	358889	223	7134016	358890	pool class 3	3	56	0.15	1.50	1.5	N	40	5	0	substrate
Km 212.2	EC3	19	223	7134016	358890	224	7134017	358892	run class 3	2	58	0.10	0.20	0.2	N	10	0	0	emergent vegetation
		20	224	7134017	358892	F150	356954	7134044	wetland	70	128	0.10	0.20	37.0	N	-	-	-	emergent vegetation
		1	225	7132673	361256	229	7132772	361299	dry	112	112	0.1	20	20	N	50	5	0	substrate; emergent vegetation
		2	229	7132772	361299	232	7132780	361296	pool class 3	9	121	0.25			N	-	-	-	-
		3	232	7132780	361296	234	7132786	361303	run class 3	10	131	0.1	1.5	1.5	N	50	20	0	substrate; depth/turbulence; emergent vegetation
		4	234	7132786	361303	237	7132793	361317	cascade	15	146	0.12	0.5	0.5	N	70	35	0	substrate; depth/turbulence; emergent vegetation
		5	237	7132793	361317	239	7132803	361330	run class 3	17	163	0.1	1	1	N	50	20	0	substrate; depth/turbulence; emergent vegetation; submergent vegetation
		6	239	7132803	361330	242	7132817	361339	cascade	13	176	0.1	0.5	0.5	N	75	40	0	substrate; depth/turbulence; emergent vegetation
		7	242	7132817	361339	245	7132823	361343	pool class 3	8	184	0.2	1	1	N	70	30	0	substrate; depth/turbulence; emergent vegetation
		8	245	7132823	361343	247	7132838	361346	exposed boulder	15	199	0.05	1	1	N	90	0	0	substrate
		9	247	7132838	361346	248	7132845	361347	pool class 3	4	203	0.05	1	1	N	10	0	0	substrate; emergent vegetation
		10	235	7132845	361347	249	7132796	361300	cascade	11	11	0.1	0.2	0.2	N	80	30	0	substrate; depth/turbulence
		11	249	7132796	361300	251	7132807	361308	run class 3	17	28	0.13	0.5	0.5	N	50	10	0	substrate; depth/turbulence; emergent vegetation
		12	251	7132807	361308	254	7132836	361310	cascade	28	56	0.1	1	1	N	80	25	0	substrate; depth/turbulence
		13	254	7132836	361310	255	7132840	361312	exposed boulder	4	60	0.05	0.5	0.5	N	10	0	0	substrate
		14	255	7132840	361312	256	7132842	361313	cascade	3	63	0.1	0.3	0.3	N	80	30	0	substrate; depth/turbulence
		15	256	7132842	361313	257	7132854	361320	braided run class 3	12	75	0.25	10	10	N	50	20	0	substrate; emergent vegetation
		16	257	7132854	361320	258	7132864	361326	run class 3	11	86	0.1	0.2	0.2	N	50	40	0	substrate
		17	258	7132864	361326	259	7132869	361327	cascade	5	91	0.05	0.15	0.15	N	40	0	0	substrate; depth/turbulence; emergent vegetation
		18	259	7132869	361327	260	7132870	361329	exposed boulder	3	94	0.05	0.4	0.4	N	10	0	0	substrate
19	260	7132870	361329	261	7132877	361340	braided pool class 3	13	107	0.2	10	10	N	50	20	0	substrate; emergent vegetation		
20	261	7132877	361340	263	7132887	361342	run class 3	10	117	0.25	2	2	N	60	20	0	substrate; emergent vegetation		
Km 213.1	EC2	21	263	7132887	361342	264	7132918	361363	pool class 3	37	154	0.3	15	15	N	60	20	0	-
		1	129	7132218	361863	130	7132226	361867	cascade	9	9	0.25	1.0	1.0	N	90	70	0	substrate; depth/turbulence
		2	130	7132226	361867	131	7132230	361870	run class 3	5	14	0.25	1.0	1.0	N	70	40	0	substrate
		3	131	7132230	361870	132	7132237	361874	cascade	8	22	0.15	1.0	1.0	Y	90	70	0	substrate; depth/turbulence
		4	132	7132237	361874	133	7132242	361877	riffle	6	28	0.20	0.7	0.7	N	70	30	0	substrate; depth/turbulence
		5	133	7132242	361877	134	7132246	361880	run class 3	5	33	0.20	0.5	0.5	N	60	20	0	substrate
		6	134	7132246	361880	135	7132251	361882	cascade	5	38	0.20	0.7	0.7	Y	70	30	0	substrate; depth/turbulence
		7	135	7132251	361882	136	7132258	361883	riffle	7	45	0.30	0.7	0.7	Y	80	30	0	substrate; depth/turbulence
		8	136	7132258	361883	137	7132264	361882	run class 3	6	51	0.50	0.6	0.6	Y	50	20	0	substrate; depth/turbulence
		9a	137	7132264	361882	138	7132275	361887	cascade	13	64	0.25	1.0	1.0	N	70	30	0	substrate; depth/turbulence
		9b	138	7132275	361887	142	7132331	361904	cascade	62	126	0.25	1.2	1.2	N	75	20	0	substrate; depth/turbulence
		10	142	7132331	361904	143	7132335	361905	run class 3	4	130	0.35	2.0	2.0	N	65	35	0	substrate; depth/turbulence
		11	143	7132335	361905	159	7132405	362075	cascade	209	339	0.35	9.0	19.0	N	50	20	0	substrate; depth/turbulence
		12	159	7132405	362075	160	7132406	362083	run class 3	8	347	0.20	6.0	16.0	N	40	10	0	substrate
		13	160	7132406	362083	161	7132405	362105	cascade	24	371	0.20	2.0	15.0	N	50	20	0	substrate; depth/turbulence
		14	161	7132405	362105	162	7132416	362123	riffle	21	392	0.15	1.0	15.0	Y	50	10	0	substrate; depth/turbulence
15	162	7132416	362123	163	7132417	362126	run class 3	4	396	0.15	8.0	20.0	Y	60	10	0	substrate; depth/turbulence		
16	163	7132417	362126	165	7132418	362155	cascade	30	426	0.15	4.0	6.0	Y	50	10	0	substrate; depth/turbulence		
alternate W1	W1	1	149	7148094	567378	150	7147953	567445	pond	120	120	-	-	-	-	-	-	-	-
		2	150	7147953	567445	151	7147773	567526	dry	200	320	-	0	2	-	-	-	-	-
		3	151	567526	7147773	152	7147502	567666	no visible channel	-	-	-	-	-	-	-	-	-	-
alternate W2	W2	1	192	7147920	568245	193	7147941	568240	run class 3	20	20	0.4	1.0	1.0	N	0	0	0	-
		2	193	7147941	568240	194	7147955	568229	riffle	15	35	0.3	1.0	1.0	N	50	25	0	depth/turbulence
		3	194	7147955	568229	196	7147932	568152	run class 3	95	130								

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New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish <60 mm	Medium Fish 61-150 mm	Large Fish >150 mm	
alternate W3	W3	7	150	7148578	570379	153	7148617	570386	riffle	30	485	0.1	0.7	0.7	N	10	0	0	emergent vegetation
		8	153	7148617	570386	154	7148625	570383	run class 3	10	495	0.2	1.0	1.0	N	10	0	0	emergent vegetation
		9	154	7148625	570383	155	7148657	570362	flat	40	535	0.4	2.0	2.0	N	20	0	0	emergent vegetation
		10	155	7148657	570362	156	7148701	570345	run class 3	45	580	0.2	0.7	0.7	N	10	0	0	emergent vegetation
		11	156	7148701	570345	157	7148737	570306	flat	50	630	0.3	1.0	1.0	N	10	0	0	emergent vegetation
alternate W4	W4	1	159	7122882	617929	160	7122957	617936	dry	85	85	-	-	0.5	N	0	0	0	-
		2	160	7122957	617936	161	7122984	617948	riffle	30	115	0.1	0.3	0.5	N	10	0	0	-
		3	161	7122984	617948	162	7123046	617990	run class 3	75	190	0.1	0.5	0.4	N	10	0	0	emergent vegetation
		4	162	7123046	617990	164	7123127	617996	flat	80	270	0.3	0.4	0.4	N	10	0	0	emergent vegetation
		5	164	7123127	617996	165	7123158	618049	pond	60	330	unknown	unknown	unknown	N	90	90	90	depth/turbulence; emergent vegetation
		6	165	7123158	618049	166	7123189	618086	flat	50	380	0.1	0.3	0.3	Y	10	0	0	emergent vegetation
		7	166	7123189	618086	167	7123264	618094	pond	75	455	unknown	unknown	unknown	N	50	50	50	depth/turbulence; emergent vegetation
		8	167	7123264	618094	168	7123459	618096	flat	215	670	0.2	0.2	0.2	Y	10	0	0	emergent vegetation
alternate W5	W5	1	171	7124266	620952	170	7124280	620940	flat	20	20	0.2	7	7	N	0	0	0	-
		2	170	7124280	620940	172	7124286	620920	run class 3	20	40	0.2	0.3	0.3	N	0	0	0	-
		3	172	7124286	620920	174	7124470	620777	flat	235	275	0.7	0.8	0.8	N	10	0	0	emergent vegetation
alternate W6	W6	1	176	7122372	625616	177	7122439	625647	run class 3	70	70	0.1	0.2	0.2	N	0	0	0	emergent vegetation
		2	177	7122439	625647	178	7122468	625644	flat	30	100	0.1	~10	-	N	0	0	0	emergent vegetation
		3	178	7122468	625644	179	7122503	625639	run class 3	35	135	0.1	0.2	0.2	N	0	0	0	emergent vegetation
		4	179	7122503	625639	180	7122632	625617	flat	130	265	0.1	~10	-	N	0	0	0	emergent vegetation
		5	180	7122632	625617	182	7122818	625599	run class 3	185	450	0.2	0.2	0.2	N	0	0	0	emergent vegetation
		6	182	7122818	625599	183	7122830	625581	flat	30	480	0.1	~10	-	N	0	0	0	emergent vegetation
		7	183	7122830	625581	185	7123052	625526	run class 3	250	730	0.3	6.0	6.0	N	10	0	0	emergent vegetation
		8	185	7123052	625526	186	7123067	625525	flat	10	740	0.3	1.0	1.0	N	0	0	0	-
		9	186	7123067	625525	187	7123130	625488	run class 3	70	810	0.3	2.0	2.0	N	0	0	0	emergent vegetation
		10	187	7123130	625488	188	7123145	625485	riffle	15	825	0.1	0.4	0.4	N	0	0	0	-
		11	188	7123145	625485	189	7123201	625464	flat	60	885	0.2	0.4	0.4	N	10	0	0	emergent vegetation
S3	S3	1	064	7115414	639314	067	7115458	639304	run class 3	46	46	0.6	4.0	4.0	N	75	40	0	substrate; depth/turbulence; submergent vegetation; emergent vegetation
		2	067	7115458	639304	068	7115468	639307	riffle	11	57	0.4	2.0	2.0	N	90	50	5	substrate; depth/turbulence
		3	068	7115468	639307	070	7115475	639309	run class 3	7	64	0.3	2.0	2.0	N	70	40	0	substrate; depth/turbulence
		4	070	7115475	639309	071	7115483	639311	riffle	9	73	0.3	1.5	1.5	N	90	50	5	substrate; depth/turbulence
		5	071	7115483	639311	074	7115499	639316	run class 3/backwater	17	90	0.3	10.0	10.0	N	80	55	0	substrate; depth/turbulence; submergent vegetation; emergent vegetation
		6	074	7115499	639316	077	7115529	639324	run class 3	27	117	0.3	3.0	3.0	N	70	40	0	substrate; depth/turbulence; emergent vegetation
		7	077	7115529	639324	079	7115540	639329	riffle/backwater	12	129	0.3	5.0	5.0	N	90	50	5	substrate; depth/turbulence; submergent vegetation; emergent vegetation
		8	079	7115540	639329	081	7115559	639332	run class 3	19	148	0.2	4.0	4.0	N	75	35	0	substrate; depth/turbulence
		9a	081	7115559	639332	088	7115576	639357	riffle	34	182	0.4	0.5	0.5	N	90	50	5	substrate; depth/turbulence; submergent vegetation; emergent vegetation
		9b	088	7115576	639357	090	7115583	639369	riffle	14	196	0.3	1.0	1.0	N	90	50	5	substrate; depth/turbulence; emergent vegetation
		9c	090	7115583	639369	092	7115578	639375	riffle	8	204	0.3	1.0	1.0	N	90	50	5	substrate; depth/turbulence; emergent vegetation
S5	S5	1	118	7119693	632832	127	7119605	632648	run class 1	203	203	> 2	98.0	100	N	60	50	40	substrate; depth/turbulence; submergent vegetation; emergent vegetation
		2	119	7119660	632736	120	7119637	632652	backwater	87	87	> 1	13.0	15	N	20	10	0	substrate; depth/turbulence; submergent vegetation; emergent vegetation
S11	S11	1	none	7137298	605305	054	7137338	605327	run class 3	48	48	0.4	0.5	0.5	N	80	40	0	substrate; emergent vegetation
		2	054	7137338	605327	059	7137435	605382	pond	116	164	0.5	60	60	N	70	50	0	substrate; emergent vegetation
		3	059	7137435	605382	060	7137466	605400	flat	39	203	0.4	9	9	N	75	40	0	substrate; emergent vegetation
S13	S13	1	032	7140250	599062	035	7140531	598996	run class 2	306	306	0.8	69	72	N	50	40	20	substrate; depth/turbulence
		2	035	7140262	599082	036	7140194	599132	run class 3	94	94	0.5	10	3	N	70	40	5	substrate; submergent vegetation; emergent vegetation
		3	041	7140248	598929	044	7140309	598869	flat	90	90	0.5	15	20	N	50	30	0	substrate; depth/turbulence; emergent vegetation
		4	044	7140309	598869	048	7140443	598811	run class 3	142	232	0.5	65	56	N	55	25	10	substrate; depth/turbulence; submergent vegetation; emergent vegetation
S14	S14	1	019	7140893	597387	018	7140886	597388	undef	7	7	0.05	8.0	2.0	N	95	5	0	emergent vegetation
		2a	018	7140886	597388	017	7140879	597397	flat	12	19	0.33	1.0	1.0	N	75	5	0	-
		2b	017	7140879	597397	016	7140870	597398	flat	9	28	0.06	0.5	0.5	N	90	10	0	substrate; emergent vegetation
		3	016	7140870	597398	015	7140860	597409	pool class 3	18	46	0.65	2.5	2.5	N	50	5	0	substrate; depth/turbulence; emergent vegetation
		4	015	7140860	597409	014	7140856	597411	flat	5	51	0.30	1.0	1.0	N	80	5	0	emergent vegetation
		5	014	7140856	597411	013	7140845	597411	undef	16	67	0.05	15.0	15.0	N	95	5	0	emergent vegetation
		6	013	7140845	597411	007	7140824	597451	pool class 3	42	109	0.42	30.0	20.0	N	20	5	0	substrate; emergent vegetation
		7a	007	7140824	597451	005	7140803	597445	flat	17	126	0.35	2.5	2.5	N	10	1	0	substrate; emergent vegetation
		7b	005	7140805	597445	021	7140810	597455	flat	10	136	0.35	1.0	1.0	N	5	1	0	-
		8	021	7140810	597455	022	7140808	597464	run class 3	8	144	0.07	0.3	0.3	N	<1	<1	0	depth/turbulence
		9	022	7140808	597464	023	7140795	597474	undef	16	160	0.25	3.0	3.0	N	90	10	0	emergent vegetation
		10	023	7140795	597474	026	7140775	597490	flat	27	187	0.30	1.2	1.2	N	70	5	0	-
		11	026	7140775	597490	027	7140749	597498	run class 3	27	214	0.10	1.5	0.7	N	60	5	0	-
		12	027	7140749	597498	030	7140722	597489	flat	33	247	0.35	1.5	1.5	N	50	2	0	-

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Start Waypoint	Start Northing	Start Easting	End Waypoint	End Northing	End Easting	Habitat Classification	Channel Unit Length (m)	Cumulative Length (m)	Maximum Depth (m)	Width (m)		Unstable Bank (Y or N)	Instream Cover for:			Instream Cover Present
													Wetted	Bankful		Small Fish <60 mm	Medium Fish 61-150 mm	Large Fish >150 mm	
alternate crossing 28	crossing 28	1	85	7150844	609727	87	7150986	609578	run class 2	250	250	>1.2	33.7	29.7	N	80	80	80	substrate; depth/turbulence; submergent vegetation; emergent vegetation
		2	87	7150986	609578	88	7151028	609588	riffle	44	294	0.7	27.7	13.3	N	90	40	40	substrate; depth/turbulence; submergent vegetation; emergent vegetation
		3	88	7151028	609588	89	7151047	609593	run class 3	21	315	0.55	12.8	10.8	N	75	40	20	substrate; submergent vegetation
		4	89	7151047	609593	90	7151062	609607	run class 2	22	337	>1.0	14.2	13.1	N	40	15	15	substrate; turbidity; depth/turbulence; submergent vegetation; emergent vegetation
		5	90	7151062	609607	91	7151096	609649	riffle	54	391	1	11.5	8.8	N	20	10	5	substrate; depth/turbulence
		6	91	7151096	609649	92	7151091	609669	pool class 2	27	418	>1.0	4.5	4.5	N	90	90	90	substrate; turbidity; depth/turbulence; submergent vegetation; emergent vegetation
		7	92	7151091	609669	93	7151152	609704	run class 3	71	489	0.6	33.6	1.2	N	80	60	10	substrate; depth/turbulence; emergent vegetation
		8	93	7151152	609704	94	7151165	609701	riffle	13	502	0.7	13.1	3	N	40	10	10	substrate
		9	94	7151165	609701	95	7151206	609711	run class 2	13	515	0.8	5	3	N	40	20	20	substrate
		10	95	7151206	609711	96	7151220	609714	pool class 2	14	529	1.1	30	5	N	80	30	20	submergent vegetation; emergent vegetation
		11	96	7151220	609714	97	7151299	609646	flat	43	572	0.6	45	5	N	80	20	5	substrate; submergent vegetation; emergent vegetation
alternate crossing 33	crossing 33	1	101	7151939	590475	102	7151992	590470	run class 2	53	53	0.9	35.5	45.1	N	10	10	5	substrate
		2	102	7151992	590470	103	7152049	590405	riffle	130	183	0.6	30.5	42.7	N	30	5	0	substrate
		3	103	7152049	590405	104	7152070	590349	run class 2	60	243	0.8	21.6	53	N	60	30	10	substrate
		4	104	7152070	590349	105	7152069	590330	riffle	19	262	0.3	42.1	53.4	N	40	5	5	substrate
		5	105	7152069	590330	107	7152059	590195	run class 3	135	397	>1.1	42	54	Y	60	10	10	substrate
		6	107	7152059	590195	108	7152174	590170	riffle	115	512	0.5	30.2	39.2	N	60	20	20	substrate
		7	108	7152174	590170	109	7152252	590193	run class 2	82	594	0.8	43.9	43.9	Y	10	20	20	substrate
		8	109	7152252	590193	110	7152494	590206	riffle	246	840	0.7	45.7	45.7	Y	50	50	10	substrate

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Overhead Cover Present	Substrate (%)								Comments	
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock		Boulder Garden
Km 2.0	NC31 (Mushroom/End Grid Stream)	1	inundated vegetation	-	-	10	-	10	30	50	-	-	
		2	inundated vegetation	-	-	80	-	10	10	-	-	-	
		End	inundated vegetation	-	-	80	-	10	10	-	-	-	
Km 2.9	NC30.5 (no map)	1	-	-	-	-	-	-	-	-	-	-	Between waypoints 156 to 157 and waypoints 158 to 159 are small ponds.
		2	-	-	-	55	30	5	5	5	-	-	
		3	-	-	-	-	-	-	-	-	-	-	
		4	-	-	-	80	10	-	10	-	-	-	
		5	-	-	-	-	-	-	-	-	-	-	
Km 6.7	NC30	1	undercut bank; inundated vegetation; overhanging vegetation	10	20	20	20	15	15	-	-	-	
		2	undercut bank; inundated vegetation; overhanging vegetation	-	-	5	5	50	40	-	-	-	
		3	undercut bank; inundated vegetation	-	-	10	40	25	25	-	-	-	
		4	inundated vegetation	30	-	-	10	30	30	-	-	-	
Km 11.3	NC29	1a	undercut bank; overhanging vegetation	-	-	-	-	20	40	-	-	40	
		1b	overhanging vegetation	-	-	-	-	30	30	-	-	40	
		1c	overhanging vegetation	-	-	-	-	20	40	-	-	40	
		2	-	-	-	-	10	60	20	10	-	-	
		3	overhanging vegetation	-	-	-	-	50	30	20	-	-	
		4	overhanging vegetation	-	-	-	-	30	40	30	-	-	
		5	overhanging vegetation	-	-	-	-	30	30	40	-	-	
		6	-	-	-	-	10	50	20	20	-	-	
		7	overhanging vegetation	-	-	-	10	40	30	20	-	-	
		8	overhanging vegetation	10	-	-	-	20	40	30	-	-	
Km 14.1	NC28 (no map)	NVC	-	-	-	-	-	-	-	-	-	Dry, undefined channel; assessed by air.	
		1	-	20	-	-	-	-	-	80	-		-
Km 15.6	NC27	2	inundated vegetation; overhanging vegetation	70	-	-	-	10	10	10	-	-	
		3	inundated vegetation; overhanging vegetation	-	-	-	-	90	10	-	-	-	
		4	undercut bank; overhanging vegetation	30	-	-	-	10	30	30	-	-	
		5	undercut bank; overhanging vegetation	80	-	-	5	5	5	5	-	-	
		6	undercut bank	50	-	-	20	20	10	-	-	-	
		7	undercut bank; overhanging vegetation	90	-	-	-	-	10	-	-	-	
		8	undercut bank	10	-	-	-	10	20	60	-	-	
		9	-	10	-	-	-	20	30	40	-	-	
		10	undercut bank; overhanging vegetation	-	-	-	10	20	50	20	-	-	
		11	overhanging vegetation	60	-	-	40	-	-	-	-	-	
		12	undercut bank	30	-	-	10	10	30	20	-	-	
		13	overhanging vegetation	50	-	-	-	10	20	20	-	-	
		14	undercut bank	-	-	-	-	10	40	50	-	-	
		15a	overhanging vegetation	75	-	-	5	10	5	5	-	-	
		Km 17.2	NC26	15b	overhanging vegetation	90	-	-	-	-	-	10	
15c	overhanging vegetation			90	-	-	-	-	-	10	-	-	
1	undercut bank; overhanging vegetation			-	-	-	-	45	45	10	-	-	
2	undercut bank; overhanging vegetation			-	-	-	-	45	45	10	-	-	
3	-			-	-	-	-	50	50	-	-	-	
4	undercut bank; overhanging vegetation			-	-	-	-	50	50	-	-	-	
5	undercut bank; overhanging vegetation			-	-	-	-	50	50	-	-	-	
6	undercut bank; overhanging vegetation			-	-	-	-	50	50	-	-	-	
7	undercut bank; overhanging vegetation			-	-	-	-	50	50	-	-	-	
8	inundated vegetation; overhanging vegetation			-	-	-	-	34	33	33	-	-	
9	undercut bank; inundated vegetation; overhanging vegetation; ledge			-	-	-	-	30	50	20	-	-	
10	-			-	-	-	-	-	-	-	-	-	
Km 19.6	NC25 (no map)	11	undercut bank	-	-	-	-	60	40	-	-	-	Picture #100-0008 (no visible channel).
		12	undercut bank	-	-	-	-	70	30	-	-	-	
		13	undercut bank	-	-	-	-	70	30	-	-	-	
		14	undercut bank	-	-	-	-	70	30	-	-	-	
		15	-	-	-	-	-	30	30	40	-	-	
		16	undercut bank	-	-	-	-	70	30	-	-	-	
		NVC	-	-	-	-	-	-	-	-	-	-	

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Overhead Cover Present	Substrate (%)								Comments	
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock		Boulder Garden
Km 100.2	NC24	1a	-	-	-	-	-	-	-	-	-	-	
		1b	-	-	-	-	50	50	-	-	-		
		2	-	100	-	-	-	-	-	-	-		
		3	-	100	-	-	-	-	-	-	-		
		4	-	-	-	-	-	-	-	-	-		
Km 103.4	NC23.5/NC33 (no map)	NVC	-	-	-	-	-	-	-	-	-	No defined channel; no flow; flat slope; seasonal watercourses; low area 50 m in width	
Km 107.8	NC23	1	undercut bank; overhanging vegetation	20	-	-	-	20	40	20	-	-	
		2	undercut bank; overhanging vegetation	10	-	-	-	20	40	30	-	-	
		3	-	-	-	-	-	-	-	-	-		
		4	overhanging vegetation	50	-	-	-	-	40	10	-	-	
		5	-	-	-	-	10	30	60	-	-		
		6	-	90	-	-	-	-	5	5	-	-	
		7	undercut bank; overhanging vegetation	-	-	-	-	20	60	20	-	-	
		8	-	70	-	-	-	10	10	10	-	-	
		9	undercut bank; overhanging vegetation	10	-	-	-	20	40	30	-	-	
		10	undercut bank	40	-	-	-	30	30	-	-	-	
		11	-	10	-	-	50	20	20	-	-	-	
		12	overhanging vegetation	50	-	-	-	10	20	20	-	-	
		13	-	95	-	-	-	5	-	-	-	-	
		14	-	100	-	-	-	-	-	-	-	-	
		15	-	55	-	-	-	-	5	40	-	-	
		16	-	-	-	-	-	-	-	-	-	-	
		17	-	40	-	-	-	-	-	60	-	-	
		18	overhanging vegetation	10	-	-	-	-	10	40	40	-	
		19	-	60	-	-	-	30	10	-	-	-	
Km 108.8	NC22.7/NC34	1	-	-	-	-	-	60	40	-	-	-	Waypoint 77 is near the crossing. Waypoint 79 is when channel stops and turns into tundra. Limnology (taken in isolated pool in channel unit #3): temperature: 12.93°C; conductivity: 28 µS/cm; dissolved oxygen: 10.38 mg/L; and pH: 7.07. Channel unit #3 is isolated and not flowing.
		2	-	-	-	-	-	60	40	-	-	-	
		3	-	90	-	-	-	10	-	-	-	-	
		4	-	15	-	-	-	30	50	5	-	-	
Km 109.8	NC22.5/NC32	1	inundated vegetation	75	-	-	-	-	5	20	-	-	NC22.5 flows into Skinny Lake.
		2	inundated vegetation	-	-	-	5	50	40	5	-	-	
		3	-	20	-	-	-	40	30	10	-	-	
		4	-	-	-	-	10	50	40	-	-	-	
alternate NC22	NC22 (no map)	NVC	-	-	-	-	-	-	-	-	-	Seasonal watercourse; dry channel; braided channel (1.0 m in width); moderate to steep slope; vegetation grown-in (grasses, shrubs, and moss); cobble and boulders in dry channel (water in some areas); NC21 and NC22 within 200 m of each other with a low area of approximately 500 m in width; evidence of overland flows.	
alternate NC21	NC21 (no map)	NVC	-	-	-	-	-	-	-	-	-	No water flow; seasonal watercourse; dry but evidence of overland flows; gravel, cobble and boulder in areas; defined channel 0.6 m in width; braided channel in some areas; moderate to steep slope; vegetation grown-in (grass, moss, and shrubs).	
alternate NC20	NC20 (no map)	NVC	-	-	-	-	-	-	-	-	-	No water flow; seasonal watercourse; vegetation grown-in (i.e.; grass; moss; and shrubs); areas of pooled water; moderate slope; low area approximately 200 m in width; evidence of overland flow; cobble and boulders in area; braided channel (1.0m width of channel).	
Km 112.9	NC19 (no map)	NVC	-	-	-	-	-	-	-	-	-	No defined channel; no flow; moderate slope; seasonal watercourse; boulders in area; low area 400m in width.	
alternate NC18	NC18	1	-	-	-	-	-	30	50	20	-	-	Water flowing only downstream of channel unit #1 for 80 m.
		2	-	-	-	-	20	50	30	-	-		
		3	-	-	-	-	-	-	-	-	-		
		4	-	-	-	-	30	60	10	-	-		
alternate NC17	NC17	1	-	90	-	-	5	5	-	-	-	-	Ledge in channel unit #5.
		2	overhanging vegetation	80	-	-	10	10	-	-	-	-	
		3	-	70	-	-	15	15	-	-	-	-	
		4	inundated vegetation	60	-	-	20	20	-	-	-	-	
		5	ledge	70	-	-	15	15	-	-	-	-	
		6	-	80	-	-	10	10	-	-	-	-	
		7	-	30	-	-	20	50	-	-	-	-	
		8	undercut bank	-	-	-	60	40	-	-	-	-	
		9	-	-	-	-	40	60	-	-	-	-	
		10	-	-	-	-	40	60	-	-	-	-	
		11	-	-	-	-	10	90	-	-	-	-	

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Overhead Cover Present	Substrate (%)								Comments	
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock		Boulder Garden
alternate NC17	NC17	12	-	-	-	-	40	60	-	-	-	-	
		13	undercut bank	-	-	-	5	90	5	-	-	-	
		14	undercut bank	-	-	-	10	60	30	-	-	-	
		15	undercut bank; overhanging vegetation	-	-	-	15	40	40	-	5	-	
		16	-	-	-	-	70	30	-	-	-	-	
		17	undercut bank	-	-	-	20	60	10	10	-	-	
		18	-	-	-	-	10	50	40	-	-	-	
		19	undercut bank	-	-	-	15	60	25	-	-	-	
		20	-	50	-	-	10	30	10	-	-	-	
Km 127.5	NC16	1	inundated vegetation; overhanging vegetation	5	55	40	-	-	-	-	-	-	Mapped the whole stream between waterbodies. Observed small bodied fish through entire stream. Observed juvenile Arctic grayling trapped in channel unit #10. Snye observed in channel unit #3.
		2	undercut bank; inundated vegetation; overhanging vegetation	5	-	5	10	45	35	-	-	-	
		3	undercut bank; inundated vegetation; overhanging vegetation	5	55	40	-	-	-	-	-	-	
		4	overhanging vegetation	-	-	-	-	40	40	20	-	-	
		5	overhanging vegetation	35	-	40	10	7	5	3	-	-	
		6	overhanging vegetation	50	-	-	-	30	20	-	-	-	
		7	overhanging vegetation	60	-	-	-	30	10	-	-	-	
		8	undercut bank; overhanging vegetation	-	-	-	-	45	50	5	-	-	
		9	-	10	-	55	-	25	5	5	-	-	
		10	-	-	-	-	-	50	40	10	-	-	
		11	overhanging vegetation	5	-	50	-	35	10	-	-	-	
		12	inundated vegetation	40	-	60	-	-	-	-	-	-	
Km 129.2	NC15	1	undercut bank; overhanging vegetation	-	-	-	-	20	50	30	-	-	Pool class 2 were located in channel units #1 and 4. Ledge was located in channel unit #7. Backwater was located in channel unit #16.
		2	undercut bank; overhanging vegetation	-	-	-	-	5	60	35	-	-	
		3	undercut bank; overhanging vegetation	-	-	-	-	30	50	20	-	-	
		4	overhanging vegetation	-	-	-	-	65	30	5	-	-	
		5a	overhanging vegetation	-	-	-	-	5	35	60	-	-	
		5b	-	-	-	-	-	5	60	35	-	-	
		6	-	-	-	-	-	10	60	30	-	-	
		7	ledge	-	-	-	-	5	80	15	-	-	
		8	-	-	-	-	-	5	60	35	-	-	
		9	overhanging vegetation	-	-	-	-	5	80	15	-	-	
		10	undercut bank; overhanging vegetation	-	-	-	-	5	85	10	-	-	
		11	undercut bank; overhanging vegetation	-	-	-	-	-	90	10	-	-	
		12	undercut bank; overhanging vegetation	-	-	-	-	10	75	15	-	-	
		13	overhanging vegetation	-	-	-	-	-	85	15	-	-	
		14	-	-	-	-	-	-	85	15	-	-	
		15	-	-	-	-	-	-	85	15	-	-	
Km 130.1	NC14.5	16	undercut bank	-	-	-	-	-	80	20	-	-	From NC14.5 to waypoint 118 there is no visible channel, just a depression with water in the spring.
		1	-	-	-	-	-	-	-	-	-	-	
		2	-	-	-	-	-	-	-	-	-	-	
		3	-	50	-	25	25	-	-	-	-	-	
		4	-	60	-	-	40	-	-	-	-	-	
Km 131.3	NC14	5	-	50	-	25	25	-	-	-	-	-	
Km 145.3	NC13	1	inundated vegetation	95	-	-	5	-	-	-	-	-	Stream ends at waypoint 120. Tiny stream with very little flow; low lying area.
		1a	overhanging vegetation	-	-	-	50	17	30	3	-	-	Juvenile fish observed through entire reach. Pool class 2 were located in channel units #1b and 3.
		1b	-	20	-	5	45	10	15	5	-	-	
		2	-	20	-	-	30	20	30	-	-	-	
		3	overhanging vegetation	30	-	60	5	5	-	-	-	-	
		4	-	-	-	-	40	50	10	-	-	-	
		5	-	-	-	-	35	5	60	-	-	-	
		6	overhanging vegetation	-	-	-	15	80	5	-	-	-	
7	-	-	-	-	50	40	10	-	-	-			
Km 147.1	NC12	1	overhanging vegetation	10	-	10	40	30	10	-	-	-	Waypoint 139 (Easting: 600868, Northing:7149375) is the road crossing. Small fish observed throughout entire reach. Pool class 2 (deeper than 1 m) located in channel unit #4.
		2	-	40	-	60	-	-	-	-	-	-	
		3	-	5	-	5	50	40	-	-	-	-	
		4	overhanging vegetation	-	-	5	25	40	30	-	-	-	
Km 147.6	NC11.5	1a	inundated vegetation; overhanging vegetation	100	-	-	-	-	-	-	-	-	No wetted width at start because no water present. Channel unit #1b has very little water with very little flow; likely only present during winter runoff and high amounts of rainfall. Channel units # 2, 4 and 6 are small ponds.
		1b	inundated vegetation; overhanging vegetation	100	-	-	-	-	-	-	-	-	
		2	-	95	-	5	-	-	-	-	-	-	
		3	-	70	-	-	20	10	-	-	-	-	
		4	-	75	-	-	20	5	-	-	-	-	
		5a	inundated vegetation	90	-	-	10	-	-	-	-	-	
		5b	inundated vegetation	90	-	-	10	-	-	-	-	-	
		5c	inundated vegetation	90	-	-	10	-	-	-	-	-	
	6	overhanging vegetation	75	-	5	10	5	5	-	-	-		

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Overhead Cover Present	Substrate (%)								Comments			
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock		Boulder Garden		
Km 154.8	NC11 (no map)	NVC	-	-	-	-	-	-	-	-	-	-	Photos only; aerial survey. No visible channel; no water; no fluvial bed material in vicinity.		
Km 157.3	NC10	1	overhanging vegetation	5	-	15	35	25	15	5	-	-	Reach ended at the lake. Low flow through whole reach.		
Km 157.7	NC09	1a	overhanging vegetation	-	-	25	-	5	65	5	-	-	-	Lake trout observed in channel unit #1b. Channel units #4, 5, and 6 are isolated pools. The reach ended at a small shallow pond with no observable inflow. Channel units #3 and 7 had no water at the time of the habitat mapping.	
		1b	overhanging vegetation	-	-	5	-	10	85	-	-	-	-		
		2	overhanging vegetation	30	-	35	-	-	35	-	-	-	-		
		3	-	-	-	-	5	90	5	-	-	-	-		
		4	overhanging vegetation	-	-	5	-	45	50	-	-	-	-		
		5	-	-	-	5	-	5	75	15	-	-	-		
		6	-	-	5	-	10	80	5	-	-	-	-		
		7	-	-	-	-	15	80	5	-	-	-	-		
Km 159.5	NC08 (no map)	NVC	-	-	-	-	-	-	-	-	-	-	Seasonal watercourse; evidence of overland flows; ponded water in area; no defined channel; flat slope; no flow; low area approximately 150m width; vegetation grown-in.		
Km 161.5	NC07 (no map)	NVC	-	-	-	-	-	-	-	-	-	-	Seasonal watercourse; evidence of overland flows; channel semi-defined though there are areas where no channel is visible; low area approximately 400 m wide; flat slope; ponded water in areas.		
Km 163.2	NC06 (no map)	NVC	-	-	-	-	-	-	-	-	-	-	No defined channel; evidence of overland flows; wetted tundra; low area approximately 1000 m in width; flat slope; with ponded water in areas.		
Km 168.0	NC05 (no map)	NVC	-	-	-	-	-	-	-	-	-	-	No defined channel; seasonal watercourse; flat slope; low area for approximately 700 m in width; dry tundra; vegetation grown-in.		
Km 171.2	NC04 (no map)	NVC	-	-	-	-	-	-	-	-	-	-	No defined channel; seasonal watercourse; evidence of overland flow; vegetation grown-in (grasses), flat slope, low area approximately 200 m in width.		
Km 172.2	NC03	1a	-	75	-	-	-	5	20	-	-	-	-		
		1b	-	95	-	-	-	2	3	-	-	-	-		
		1c	-	95	-	-	-	-	5	-	-	-	-		
		1d	-	100	-	-	-	-	-	-	-	-	-		
		1e	-	100	-	-	-	-	-	-	-	-	-		
		2	-	100	-	-	-	-	-	-	-	-	-		
		3	-	100	-	-	-	-	-	-	-	-	-		
		4	-	100	-	-	-	-	-	-	-	-	-		
		5	-	100	-	-	-	-	-	-	-	-	-		
		6	-	100	-	-	-	-	-	-	-	-	-		
		7	-	100	-	-	-	-	-	-	-	-	-		
		8	-	100	-	-	-	-	-	-	-	-	-		
		9	-	100	-	-	-	-	-	-	-	-	-		
		10	-	100	-	-	-	-	-	-	-	-	-		
11	-	100	-	-	-	-	-	-	-	-	-				
12	-	100	-	-	-	-	-	-	-	-	-				
13	-	100	-	-	-	-	-	-	-	-	-				
14	-	100	-	-	-	-	-	-	-	-	-				
Km 174.3	NC02	1a	-	-	-	-	20	50	30	-	-	-	Waypoint 23 (Easting:624076, Northing:7145249) is approximately 6 m from NC02 (no channel visible). Approximately 20 m from left downstream bank are dry isolated pools visible through grass/forbs but no visible channel.		
		1b	-	-	-	-	30	40	30	-	-	-			
		1c	-	-	-	-	30	30	40	-	-	-			
		1d	-	90	-	-	10	-	-	-	-	-			
		1e	-	10	-	-	30	40	20	-	-	-			
		1f	-	20	-	-	-	80	-	-	-	-			
Km 174.8	Thelon River - NC01 (including former crossing X18 from 2008)	1a	-	-	-	5	5	5	30	25	30	-	Channel unit #1a was mapped in 2009.		
		1b	-	-	-	-	10	20	50	20	-	-	Channel unit #1b was mapped in 2008.		
		1c	-	-	-	-	10	35	30	20	5	-	Channel unit #1c was mapped in 2010.		
		1d	-	-	-	-	40	35	20	5	-	-	Channel unit #1d was mapped in 2010. It is located east of the gravel bar.		
		2	-	-	-	5	35	30	30	-	-	-	Channel unit #2 was mapped in 2010. It is located west of the gravel bar.		
		1e	-	-	-	10	30	40	15	5	-	-	Channel unit #1e was mapped in 2010.		
	Thelon River - Nuna ice bridge	0	-	-	-	-	35	40	25	-	-	-	Channel unit #0 was mapped in 2010. This site is located about 700 m downstream of the previous 3.2 km habitat map.		
alternate EC22	EC22	1	inundated vegetation; overhanging vegetation	30	-	50	10	5	5	-	-	-	Widths are estimated for each channel where channels are divided.		
		2	overhanging vegetation	5	-	10	50	30	5	-	-	-		-	
		3	overhanging vegetation	10	-	10	45	30	5	-	-	-		-	
		4	inundated vegetation; overhanging vegetation	5	-	5	70	10	10	-	-	-		-	
		5	overhanging vegetation	-	-	-	10	50	35	5	-	-		-	-
		6	inundated vegetation; overhanging vegetation	5	-	5	70	10	10	-	-	-		-	-
Km 203.0	EC10	1	inundated vegetation; overhanging vegetation	5	-	5	5	10	20	35	-	20			
		2	inundated vegetation; overhanging vegetation	40	-	40	-	10	10	-	-	-		-	
		3	inundated vegetation; overhanging vegetation	40	-	5	-	25	30	-	-	-		-	
Km 209.4	EC4	1	inundated vegetation; overhanging vegetation	-	-	5	5	85	5	-	-	-			
		2	inundated vegetation; overhanging vegetation	-	-	5	5	50	40	-	-	-		-	
		3	inundated vegetation; overhanging vegetation	-	-	5	5	85	5	-	-	-		-	
		4	inundated vegetation; overhanging vegetation	-	-	-	5	65	30	-	-	-		-	
		5	inundated vegetation; overhanging vegetation	-	-	5	5	75	15	-	-	-		-	
		8	inundated vegetation; overhanging vegetation	20	-	40	5	20	15	-	-	-		-	

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Overhead Cover Present	Substrate (%)								Comments			
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock		Boulder Garden		
Km 209.4	EC 4	9	inundated vegetation; overhanging vegetation	-	-	30	50	10	9	1	-	-			
		10	inundated vegetation; overhanging vegetation	-	-	10	55	10	20	5	-	-			
		11	inundated vegetation; overhanging vegetation	-	-	15	15	60	10	-	-	-			
		12	inundated vegetation; overhanging vegetation	20	-	10	15	25	20	10	-	-			
		13	inundated vegetation; overhanging vegetation	-	-	-	5	65	30	-	-	-			
		14	inundated vegetation; overhanging vegetation	35	-	50	15	-	-	-	-	-			
		15	inundated vegetation; overhanging vegetation	10	-	50	20	20	-	-	-	-			
		16	inundated vegetation; overhanging vegetation	-	-	10	20	50	20	-	-	-			
		17	inundated vegetation; overhanging vegetation	5	-	65	10	10	10	-	-	-			
		18	inundated vegetation; overhanging vegetation	-	-	10	10	30	30	20	-	-			
19	inundated vegetation; overhanging vegetation	-	-	5	15	60	20	-	-	-					
20	inundated vegetation; overhanging vegetation	100	-	-	-	-	-	-	-	-					
Km 212.2	EC3	1	inundated vegetation; overhanging vegetation	-	-	-	10	10	40	40	-	-			
		2	-	-	-	-	-	100	-	-	-	-			
		3	inundated vegetation; overhanging vegetation	-	-	-	5	35	30	20	-	-			10
		4	inundated vegetation; overhanging vegetation	-	-	-	5	5	30	40	-	-			20
		5	inundated vegetation; overhanging vegetation	-	-	-	5	25	30	40	-	-			-
		6	inundated vegetation; overhanging vegetation	-	-	-	-	10	20	10	-	-			60
		7	inundated vegetation; overhanging vegetation	-	-	-	-	5	70	20	-	-			5
		8	-	-	-	-	-	5	-	-	-	-			95
		9	inundated vegetation; overhanging vegetation	5	-	5	-	25	40	10	-	-	15		
		10	overhanging vegetation	-	-	-	-	20	50	30	-	-	-		
		11	inundated vegetation; overhanging vegetation	-	-	-	5	50	40	5	-	-	-		
		12	overhanging vegetation	-	-	-	5	10	15	20	-	-	50		
		13	-	-	-	-	-	-	-	-	-	-	100		
		14	inundated vegetation; overhanging vegetation	-	-	-	-	5	40	5	-	-	50		
		15	inundated vegetation; overhanging vegetation	10	-	15	10	50	10	3	-	-	2		
		16	inundated vegetation; overhanging vegetation	-	-	-	5	10	60	10	-	-	15		
		17	inundated vegetation; overhanging vegetation	-	-	-	-	5	70	5	-	-	20		
		18	-	-	-	-	-	-	-	-	-	-	100		
		19	inundated vegetation; overhanging vegetation	-	-	5	-	20	75	-	-	-	-		
		20	inundated vegetation; overhanging vegetation	-	-	-	-	10	50	40	-	-	-		
		Km 213.1	EC2	21	inundated vegetation; overhanging vegetation	80	-	20	-	-	-	-	-	-	-
1	undercut bank; overhanging vegetation			-	-	-	-	-	10	-	-	-	90		
2	undercut bank; overhanging vegetation			-	-	-	-	50	30	20	-	-	-		
3	undercut bank; overhanging vegetation			-	-	-	-	1	9	-	-	-	90		
4	undercut bank; overhanging vegetation			-	-	-	5	5	20	30	-	-	40		
5	undercut bank; overhanging vegetation			-	-	-	5	70	20	5	-	-	-		
6	undercut bank; overhanging vegetation			-	-	-	5	5	25	25	-	-	40		
7	undercut bank; overhanging vegetation			-	-	-	5	5	50	30	-	-	10		
8	undercut bank; overhanging vegetation			-	-	-	-	10	40	40	-	-	10		
9a	undercut bank; overhanging vegetation			-	-	-	-	5	30	5	-	-	60		
9b	undercut bank; overhanging vegetation			-	-	-	-	5	15	-	-	-	80		
10	undercut bank; overhanging vegetation			-	-	-	10	20	50	10	-	-	10		
11	undercut bank; overhanging vegetation			-	-	-	-	5	15	-	-	-	80		
12	-			-	-	-	30	50	20	-	-	-	-		
13	-			-	-	-	10	20	50	20	-	-	-		
14	-			-	-	-	10	40	30	20	-	-	-		
15	-	-	-	-	50	20	10	5	-	-	15				
16	-	-	-	-	5	15	-	-	-	-	80				
alternate W1	W1	1	-	20	-	60	20	-	-	-	-	-	Channel ends at waypoint 151. Only overland flow from spring run-off (no channel) between waypoints 141 and 142.		
		2	-	80	-	-	-	5	10	5	-	-		-	
		3	-	-	-	-	-	-	-	-	-	-		-	
alternate W2	W2	1	-	60	-	-	-	10	30	-	-	-	-		
		2	-	-	-	-	-	20	70	10	-	-	-		
		3	inundated vegetation	10	-	-	10	10	50	20	-	-	-		
		4	inundated vegetation	-	-	-	40	30	10	20	-	-	-		
		5	inundated vegetation	-	-	-	-	30	60	10	-	-	-		
		6	inundated vegetation	30	-	-	40	5	20	5	-	-	-		
		7	inundated vegetation	20	-	-	-	30	50	-	-	-	-		
		8	inundated vegetation	40	-	-	-	10	30	20	-	-	-		
		9	inundated vegetation	90	-	-	-	5	5	-	-	-	-		
		10	inundated vegetation	80	-	-	-	-	10	10	-	-	-		
alternate W3	W3	1	-	100	-	-	-	-	-	-	-	-			
		2	-	5	-	-	-	25	50	20	-	-		-	
		3	-	30	-	-	-	-	10	60	-	-		-	
		4	-	90	-	-	-	-	-	10	-	-		-	
		5	-	20	-	-	-	5	50	25	-	-		-	
		6	-	60	-	-	-	-	-	40	-	-		-	

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Overhead Cover Present	Substrate (%)									Comments
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Boulder Garden	
alternate W3	W3	7	overhanging vegetation	-	-	-	-	-	40	60	-	-	
		8	-	40	-	-	-	-	20	40	-	-	
		9	-	100	-	-	-	-	-	-	-	-	
		10	-	5	-	-	-	25	45	25	-	-	
		11	-	40	-	-	-	-	40	20	-	-	
alternate W4	W4	1	-	5	-	-	10	30	10	45	-	-	Undercut bank in channel unit #6. Caribou tracks in channel unit #8.
		2	undercut bank; overhanging vegetation	-	-	-	-	10	60	30	-	-	
		3	overhanging vegetation	10	-	-	-	30	50	10	-	-	
		4	overhanging vegetation	80	-	-	-	-	10	10	-	-	
		5	-	100	-	-	-	-	-	-	-	-	
		6	undercut bank	80	-	-	-	-	10	10	-	-	
		7	-	80	-	-	-	-	10	10	-	-	
		8	-	40	-	-	-	20	20	20	-	-	
alternate W5	W5	1	-	30	-	-	-	-	20	50	-	-	
		2	-	20	-	-	-	-	60	20	-	-	
		3	overhanging vegetation	80	-	-	-	5	5	10	-	-	
alternate W6	W6	1	inundated vegetation	99	-	-	-	1	-	-	-	-	
		2	inundated vegetation	100	-	-	-	-	-	-	-	-	
		3	inundated vegetation	100	-	-	-	-	-	-	-	-	
		4	inundated vegetation	100	-	-	-	-	-	-	-	-	
		5	inundated vegetation	70	-	-	15	10	4	1	-	-	
		6	inundated vegetation	100	-	-	-	-	-	-	-	-	
		7	-	3	-	-	35	45	15	1	1	-	
		8	-	-	-	-	-	40	40	20	-	-	
		9	-	-	-	-	-	50	30	20	-	-	
		10	-	-	-	-	-	10	70	20	-	-	
		11	inundated vegetation	90	-	-	-	-	-	10	-	-	
S3	S3	1	undercut bank; overhanging vegetation; ledge	1	-	1	8	50	20	20	-	-	Backwater located in channel unit #5 and 7.
		2	undercut bank	-	-	-	5	30	50	15	-	-	
		3	undercut bank; overhanging vegetation	-	-	-	-	10	30	60	-	-	
		4	undercut bank; overhanging vegetation	-	-	-	5	25	50	20	-	-	
		5	overhanging vegetation	5	-	3	20	40	12	20	-	-	
		6	inundated vegetation; overhanging vegetation	-	-	-	10	40	30	20	-	-	
		7	overhanging vegetation	1	-	-	1	8	40	50	-	-	
		8	undercut bank; overhanging vegetation	-	-	-	10	30	60	-	-	-	
		9a	undercut bank; overhanging vegetation; inundated vegetation	-	-	-	-	60	30	10	-	-	
		9b	undercut bank; overhanging vegetation	-	-	-	60	30	5	5	-	-	
		9c	inundated vegetation; overhanging vegetation	-	-	-	-	60	30	10	-	-	
S5	S5	10	overhanging vegetation	-	-	-	10	60	30	-	-	-	
		11	overhanging vegetation	-	-	-	15	15	50	20	-	-	
S5	S5	1	overhanging vegetation	1	-	5	-	14	50	30	-	-	Waypoint 116 is crossing.
		2	overhanging vegetation	30	-	60	-	-	5	5	-	-	
S11	S11	1	undercut bank; inundated vegetation; overhanging vegetation	5	-	10	-	10	30	45	-	-	Waypoint 049 is crossing.
		2	inundated vegetation; overhanging vegetation	15	-	60	-	5	10	10	-	-	
		3	inundated vegetation; overhanging vegetation	10	-	50	-	5	15	20	-	-	
S13	S13	1	inundated vegetation; overhanging vegetation	5	-	10	40	35	5	5	-	-	Crossing (at waypoint 037) goes over island in channel.
		2	undercut bank; inundated vegetation; overhanging vegetation	5	-	30	-	50	10	5	-	-	
		3	inundated vegetation; overhanging vegetation	5	-	5	-	10	30	50	-	-	
		4	inundated vegetation; overhanging vegetation	-	-	55	-	10	25	10	-	-	
S14	S14	1	inundated vegetation; overhanging vegetation	60	-	40	-	-	-	-	-	-	Waypoint 004 is crossing.
		2a	inundated vegetation; overhanging vegetation	55	-	40	-	5	-	-	-	-	
		2b	inundated vegetation; overhanging vegetation	55	-	45	-	-	-	-	-	-	
		3	inundated vegetation; overhanging vegetation	40	-	50	3	5	2	-	-	-	
		4	inundated vegetation; overhanging vegetation	45	-	50	3	2	-	-	-	-	
		5	inundated vegetation; overhanging vegetation	95	-	5	-	-	-	-	-	-	
		6	inundated vegetation; overhanging vegetation	30	-	55	5	5	5	-	-	-	
		7a	inundated vegetation	30	-	50	5	3	10	2	-	-	
		7b	inundated vegetation; overhanging vegetation	30	-	40	15	10	5	-	-	-	
		8	inundated vegetation; overhanging vegetation	35	-	50	10	5	-	-	-	-	
		9	inundated vegetation; overhanging vegetation	60	-	40	-	-	-	-	-	-	
		10	inundated vegetation; overhanging vegetation	50	-	40	5	-	5	-	-	-	
		11	inundated vegetation; overhanging vegetation	50	-	45	5	-	-	-	-	-	
		12	inundated vegetation; overhanging vegetation	35	-	50	5	5	5	-	-	-	

Table X.VIII-3
Detailed Stream Habitat Information Collected along the Kiggavik Project Proposed Access Road Corridors, 2008 to 2010

New Crossing ID (EBA)	Crossing ID (Golder)	Channel Unit #	Overhead Cover Present	Substrate (%)								Comments	
				Organics	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock		Boulder Garden
alternate crossing 28	crossing 28	1	inundated vegetation	-	-	15	15	10	40	20	-	-	
		2	inundated vegetation	-	-	-	10	10	40	40	-	-	
		3	-	-	-	-	20	40	40	-	-		
		4	inundated vegetation; overhanging vegetation	-	-	-	5	-	50	45	-	-	
		5	inundated vegetation	-	-	5	5	10	35	45	-	-	
		6	undercut bank; overhanging vegetation	-	-	-	5	10	45	40	-	-	
		7	undercut bank; inundated vegetation; overhanging vegetation	-	-	5	5	40	30	20	-	-	
		8	inundated vegetation; overhanging vegetation	-	-	-	-	5	45	50	-	-	
		9	inundated vegetation; overhanging vegetation	-	-	-	-	5	40	55	-	-	
		10	inundated vegetation	-	-	25	50	10	5	5	-	-	
		11	inundated vegetation	-	-	5	40	30	10	10	-	-	
alternate crossing 33	crossing 33	1	undercut bank; inundated vegetation; overhanging vegetation	-	-	-	5	50	30	5	-	10	
		2	undercut bank; overhanging vegetation	-	-	-	5	35	35	20	-	5	
		3	overhanging vegetation	-	-	5	5	20	30	10	-	30	
		4	-	-	-	-	10	40	15	5	-	30	
		5	-	-	-	-	5	40	15	10	-	30	
		6	overhanging vegetation	-	-	5	5	35	10	10	-	35	
		7	overhanging vegetation	-	-	5	5	60	20	10	-	-	
		8	overhanging vegetation	-	-	-	5	50	5	10	-	30	

Note: NAD 83, Zone 14W for all except EC2 to EC10.
= number; m = metre; mm = millimeter; Y = yes; N = no; % = percent; - = not applicable or collected; > = greater than.

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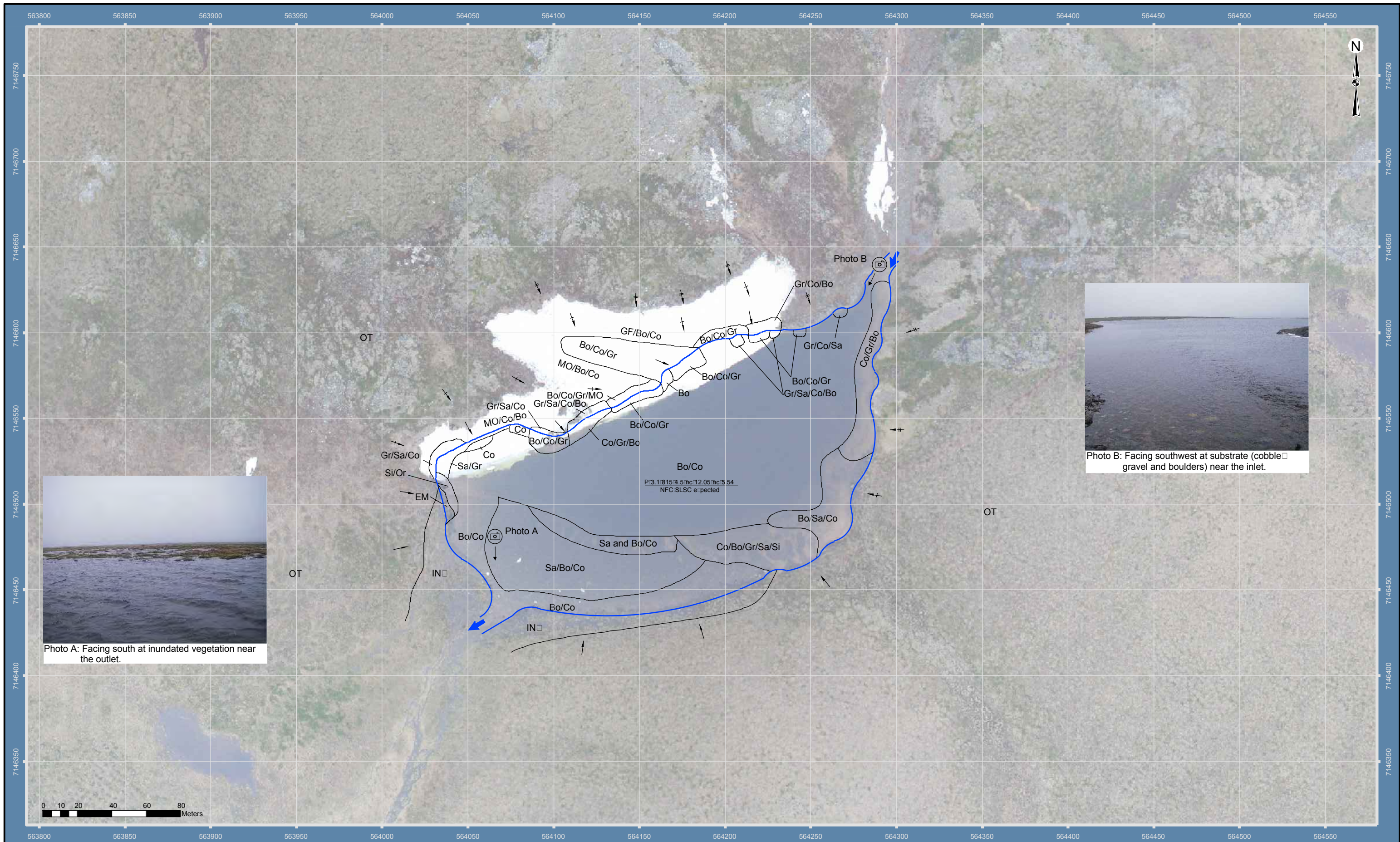
Figure X.VIII-1	Habitat Map Pointer Pond
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Figure X.VIII-29a	Habitat Map West Basin of Siamese Lake
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Figure X.VIII-37	Habitat Map Rock/Willow Stream
Figure X.VIII-38	Habitat Map Willow/Judge Sissons Stream
Figure X.VIII-39	Habitat Map Mushroom/End Grid Stream
Figure X.VIII-40	Habitat Map End Grid/Shack Stream
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Figure X.VIII-42	Habitat Map Knee/Lunch Stream
Figure X.VIII-43	Habitat Map Lunch/Andrew Stream
Figure X.VIII-44	Habitat Map Andrew/Shack Stream
Figure X.VIII-45a	Habitat Map Upper End of Shack/Lower Stream
Figure X.VIII-45b	Habitat Map Middle of Shack/Lower Stream
Figure X.VIII-45c	Habitat Map Lower End of Shack/Lower Stream
Figure X.VIII-46	Habitat Map Lower/Judge Sissons Stream
Figure X.VIII-47	Habitat Map Fox/Caribou Stream
Figure X.VIII-48	Habitat Map Caribou/Calf Stream
Figure X.VIII-49	Habitat Map Calf/Judge Sissons Stream
Figure X.VIII-50	Habitat Map Km 2.0
Figure X.VIII-51	Habitat Map Km 6.7
Figure X.VIII-52	Habitat Map Km 11.3
Figure X.VIII-53	Habitat Map Km 15.6
Figure X.VIII-54	Habitat Map Km 17.2

Figure X.VIII-55	Habitat Map Km 100.2
Figure X.VIII-56	Habitat Map Km 107.8
Figure X.VIII-57	Habitat Map Km 108.8
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Figure X.VIII-59	Habitat Map Alternate NC18
Figure X.VIII-60	Habitat Map Alternate NC17
Figure X.VIII-61	Habitat Map Km 127.5
Figure X.VIII-62	Habitat Map Km 129.2
Figure X.VIII-63	Habitat Map Km 130.1
Figure X.VIII-64	Habitat Map Km 131.3
Figure X.VIII-65	Habitat Map Km 145.3
Figure X.VIII-66	Habitat Map Km 147.1
Figure X.VIII-67	Habitat Map Km 147.6
Figure X.VIII-68	Habitat Map Km 157.3
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Figure X.VIII-73	Habitat Map Alternate EC22

Figure X.VIII-74	Habitat Map Km 203.0
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Figure X.VIII-77a	Habitat Map Lower End of Km 213.1
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Figure X.VIII-79	Habitat Map Alternate W2
Figure X.VIII-80	Habitat Map Alternate W3
Figure X.VIII-81	Habitat Map Alternate W4
Figure X.VIII-82	Habitat Map Alternate W5
Figure X.VIII-83	Habitat Map Alternate W6
Figure X.VIII-84	Habitat Map S03
Figure X.VIII-85	Habitat Map S05
Figure X.VIII-86	Habitat Map S11
Figure X.VIII-87	Habitat Map S13
Figure X.VIII-88	Habitat Map S14
Figure X.VIII-89	Habitat Map Alternate Crossing 28
Figure X.VIII-90	Habitat Map Alternate Crossing 33



Projection: NAD 1983 UTM Zone 14N
 Creator: AJL/TAH
 Date: 03/02/11
 File: KI08C105
 Data Sources: Orthophoto, June/July 2009

FIGURE X.VIII-1
 HABITAT MAP
 POINTER POND
 KIGGAVIK PROJECT - EIS

Legend - Lakes, Wetlands, Ponds

Substrate Types		
Cl		Clay
Si		Silt
Sa		Sand
Gr		Gravel
Co		Cobble
Bo		Boulder
Bd		Bedrock
Or		Organic

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	EM	Emergent Vegetation
	MO	Moss
	OR	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing
	Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
Surface Area (ha)
Main Shoreline Perimeter (m)
Max Depth (m)
Secchi Depth (m)
Dissolved Oxygen (mg/L)
Conductivity (µS/cm)
pH
Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microseimens per centimetre
Max depth was the depth recorded at sampling locattions.

565000 566000 567000 568000

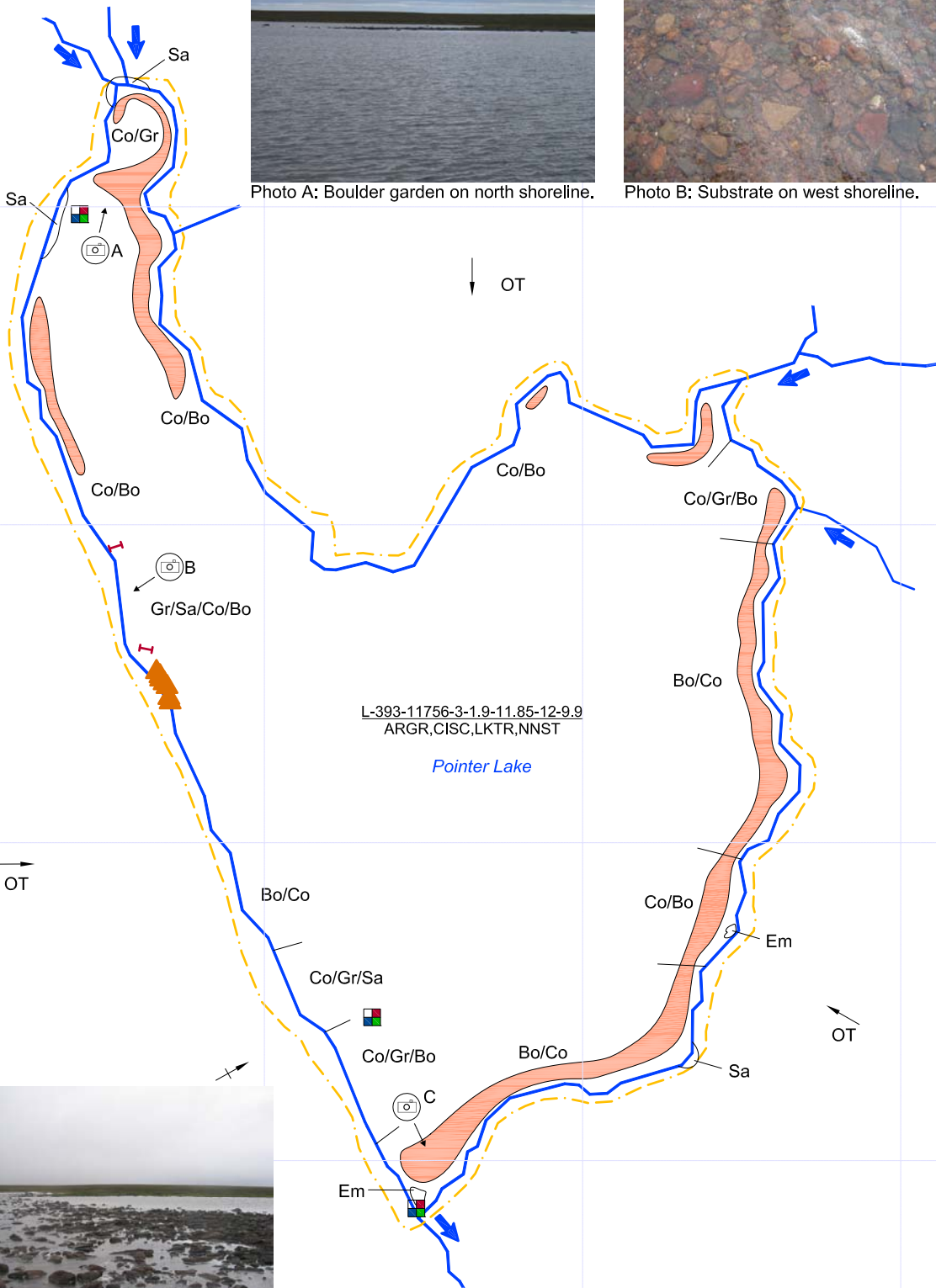


Photo C: Exposed rock (boulder garden) on east shoreline.

565000 566000 567000 568000

Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 03/02/11
 File: KIO8C007
 Data Sources: Department of Energy, Mines and Resources,
 The Surveys and Mapping Branch,
 Map Sheet 66A

Scale: 1:20,000

FIGURE X.VIII-2

HABITAT MAP
 POINTER LAKE

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

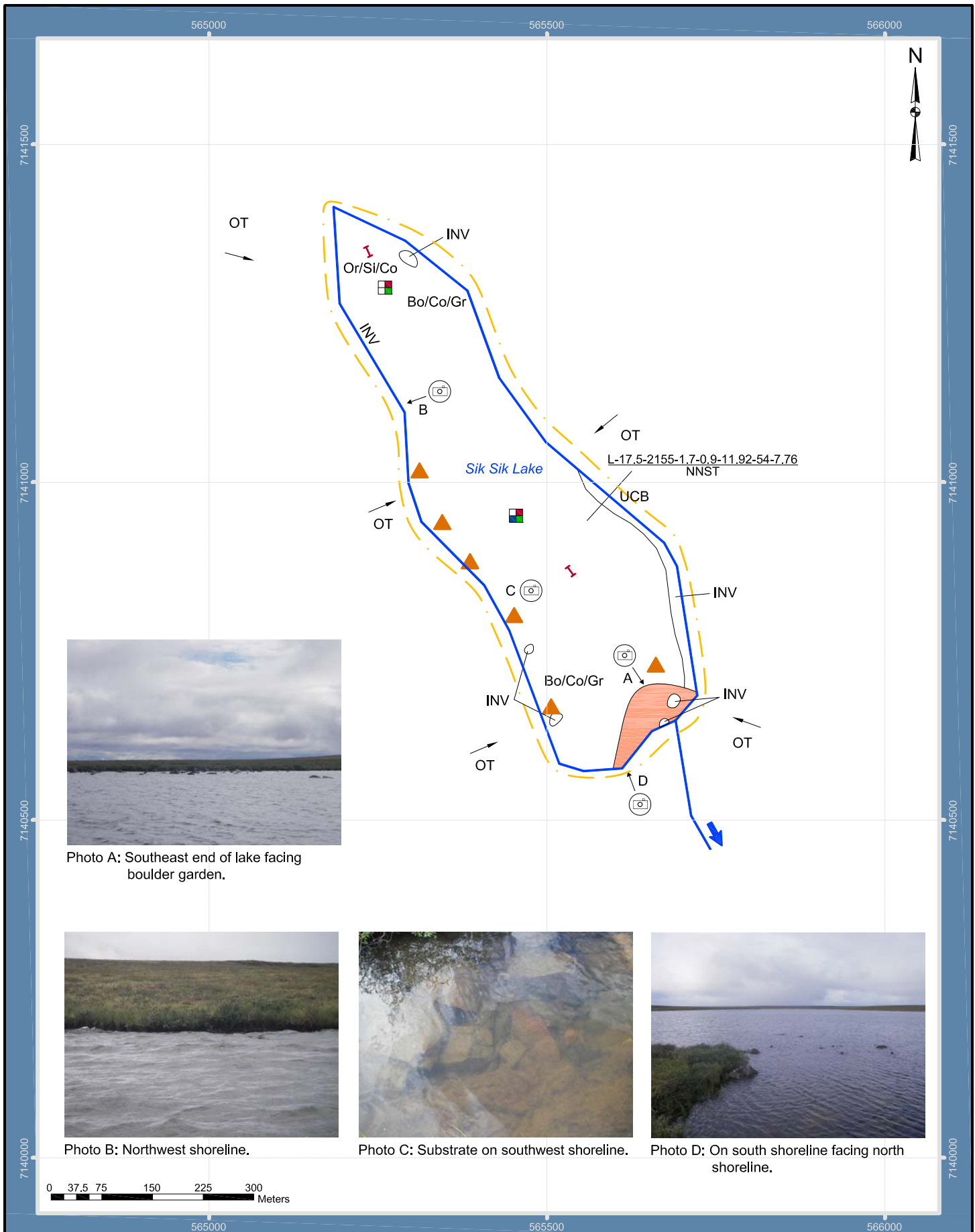
ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 03/02/11
 File: K108C010
 Data Sources: Department of Energy, Mines and Resources,
 The Surveys and Mapping Branch,
 Map Sheet 66A

FIGURE X.VIII-3
 HABITAT MAP
 SIK SIK LAKE
 KIGGAVIK PROJECT - EIS



Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
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		Bridge
		Culvert
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	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
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	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
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		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
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Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
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	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
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Bank Slope	
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	Very Steep Slope (>70%)

Bank Instability Ratings	
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General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
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 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
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	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
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	LWD	Large Woody Debris
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	LS	Landslide
	MIL	Multiple Island
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	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
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	GF/SH	Grass/Forbs/Shrubs
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	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.

553500

554000

554500



Photo D: Facing west showing cobble/boulder shoreline on north end of lake.



7137500

7137500

7136500



Photo C: Facing north showing exposed boulders on east side of lake.



Photo A: Facing west showing shoreline on south side of lake.

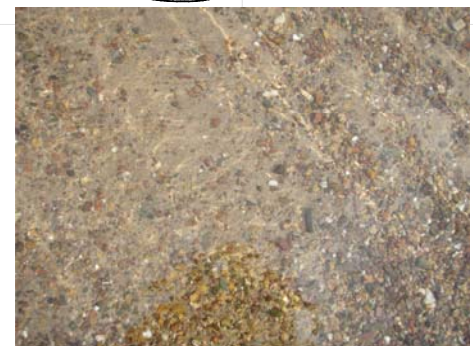
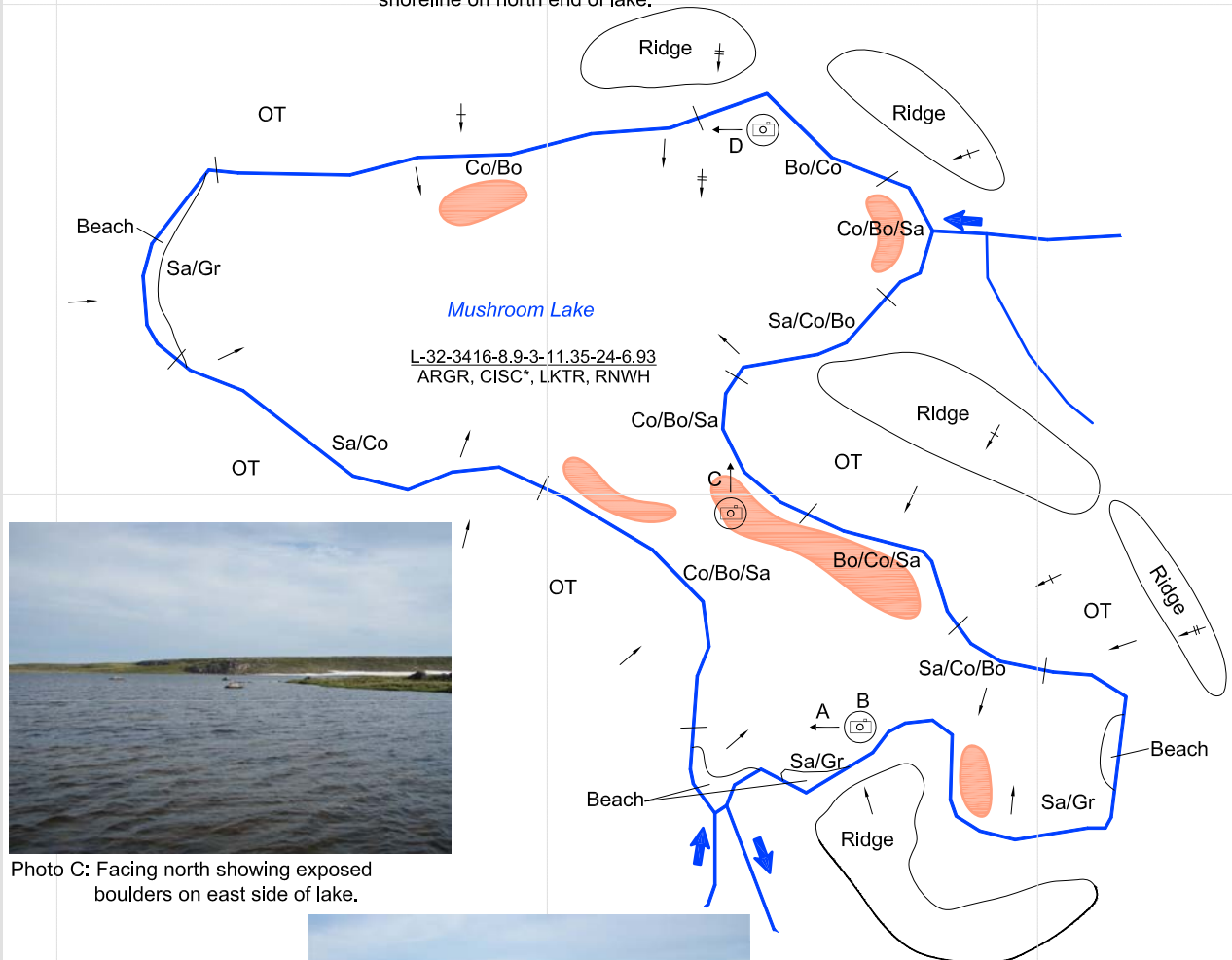


Photo B: Sand/gravel substrate.



Note:
 * = Historical Information

0 37.5 75 150 225 300 Meters

553500

554000

554500

FIGURE X.VIII-6 HABITAT MAP MUSHROOM LAKE

KIGGAVERK PROJECT - EIS



AREVA Resources Canada Inc. - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
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	INV	Inundated Vegetation
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	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
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	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
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	GS	Grassland
	GF	Grass/Forbs
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	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
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E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.



Projection: NAD 1983 UTM Zone 14N
Creator: AJL/TAH
Date: 03/02/11
File: KI08C097
Data Sources: Orthophoto, June/July 2009

FIGURE X.VIII-7
HABITAT MAP
POND 1
KIGGAVIK PROJECT - EIS

Legend - Lakes, Wetlands, Ponds

Substrate Types		
Cl		Clay
Si		Silt
Sa		Sand
Gr		Gravel
Co		Cobble
Bo		Boulder
Bd		Bedrock
Or		Organic

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	EM	Emergent Vegetation
	MO	Moss
	OR	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
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	LS	Landslide
	MIL	Multiple Island
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	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
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	UCB	Undercut Bank
	USB	Unstable Bank

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
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	HN/TN	Hoop Net/Trap Net

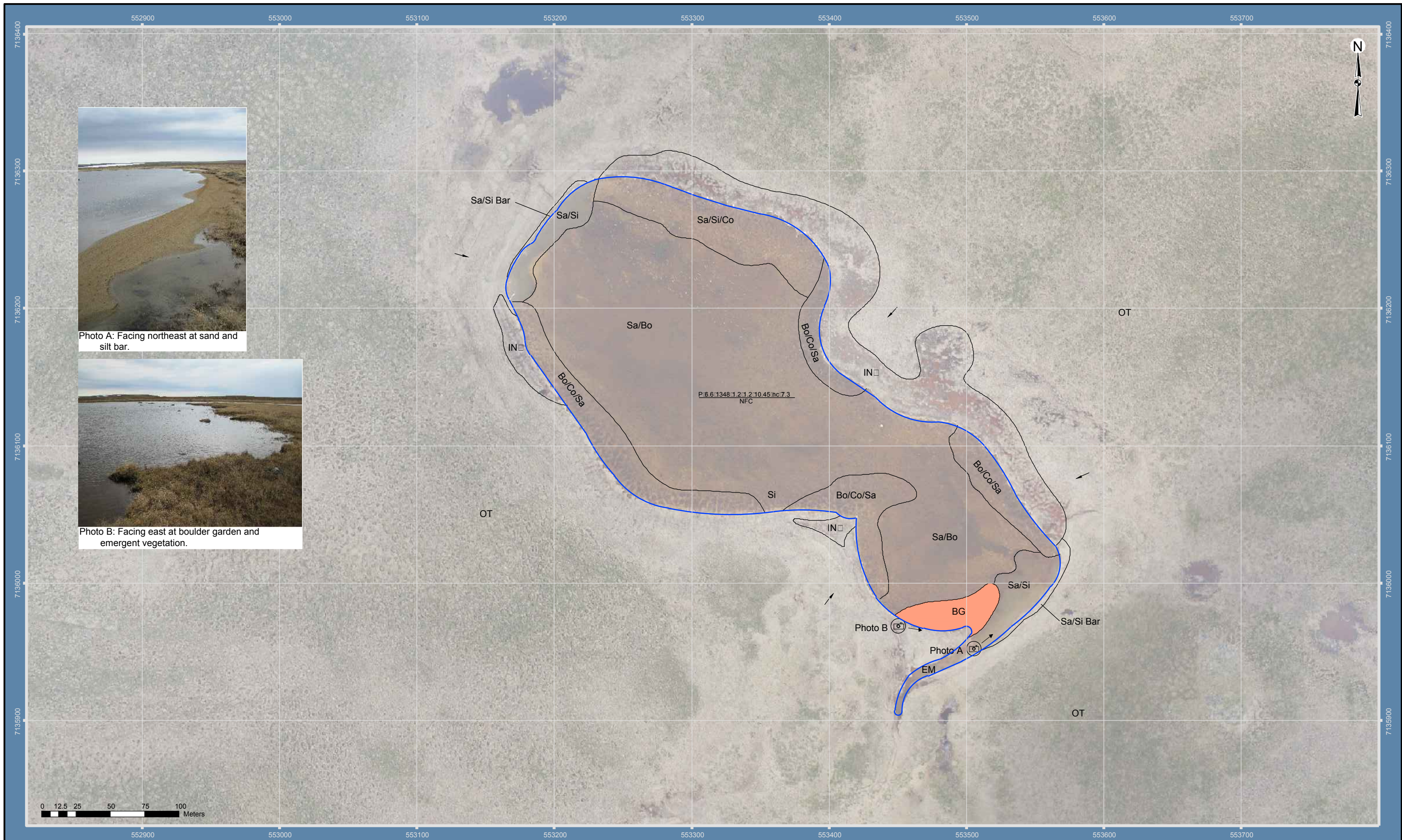
Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing
	Watercourse
	Width
	Depth

Site
Summary
Symbol

	Lake (L), Wetland (W) or Pond (P)
	Surface Area (ha)
	Main Shoreline Perimeter (m)
	Max Depth (m)
	Secchi Depth (m)
	Dissolved Oxygen (mg/L)
	Conductivity (µS/cm)
	pH
	Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microseimens per centimetre
Max depth was the depth recorded at sampling locattions.



Projection: NAD 1983 UTM Zone 14N

Creator: AJL/TAH

Date: 04/02/11

File: KI08C098

Data Sources: Orthophoto, June/July 2009

Scale: 1:2,500

FIGURE X.VIII-8

HABITAT MAP
POND 2

KIGGAVIK PROJECT - EIS



Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	EM	Emergent Vegetation
	MO	Moss
	OR	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing
	Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
Surface Area (ha)
Main Shoreline Perimeter (m)
Max Depth (m)
Secchi Depth (m)
Dissolved Oxygen (mg/L)
Conductivity (µS/cm)
pH
Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microseimens per centimetre
Max depth was the depth recorded at sampling locations.

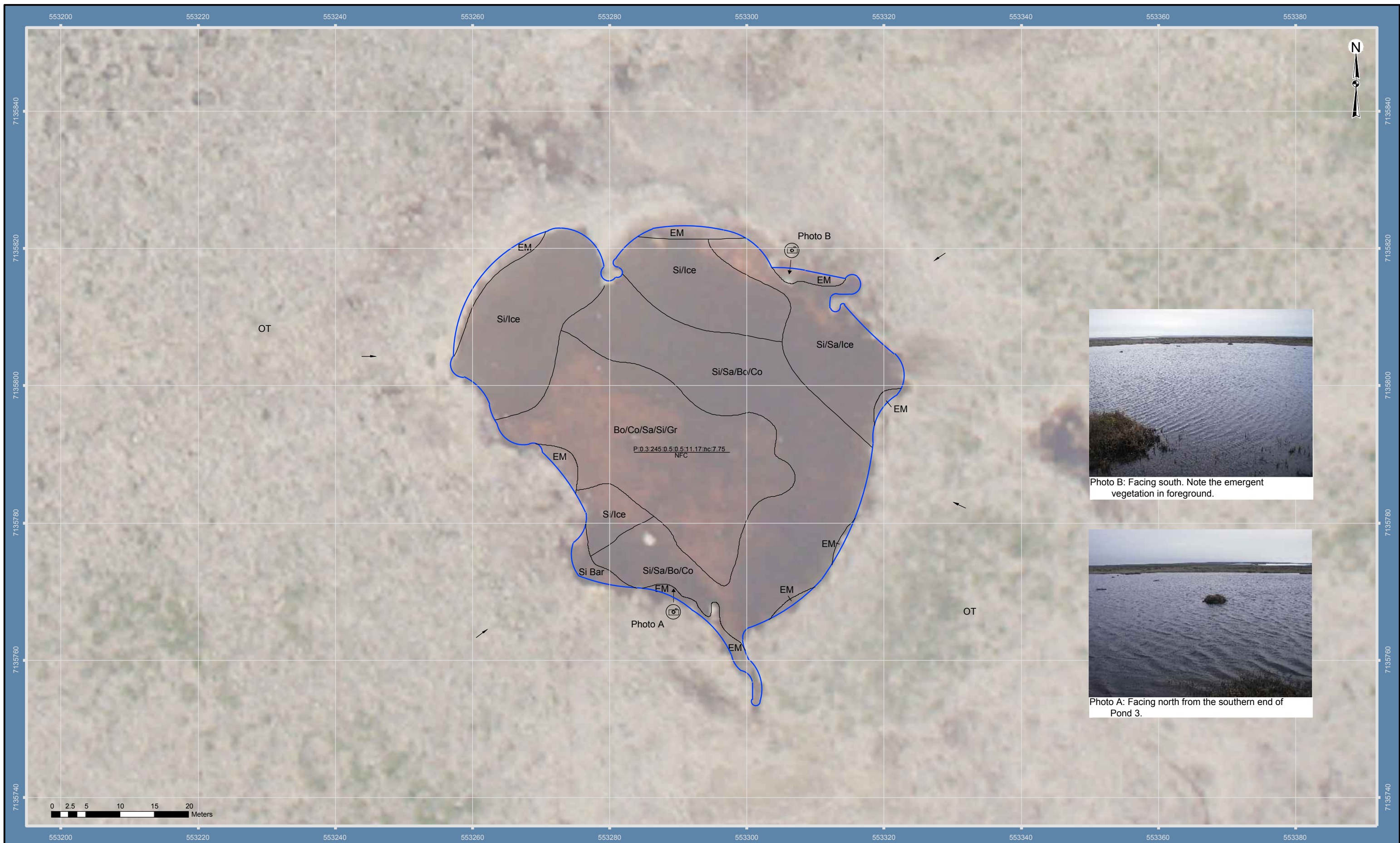


Photo B: Facing south. Note the emergent vegetation in foreground.



Photo A: Facing north from the southern end of Pond 3.

Projection: NAD 1983 UTM Zone 14N
 Creator: AJL/TAH
 Date: 04/02/11
 File: KI08C099
 Data Sources: Orthophoto, June/July 2009

FIGURE X.VIII-9
 HABITAT MAP
 POND 3
 KIGGAVIK PROJECT - EIS



Legend - Lakes, Wetlands, Ponds

Substrate Types		
Cl		Clay
Si		Silt
Sa		Sand
Gr		Gravel
Co		Cobble
Bo		Boulder
Bd		Bedrock
Or		Organic

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	EM	Emergent Vegetation
	MO	Moss
	OR	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

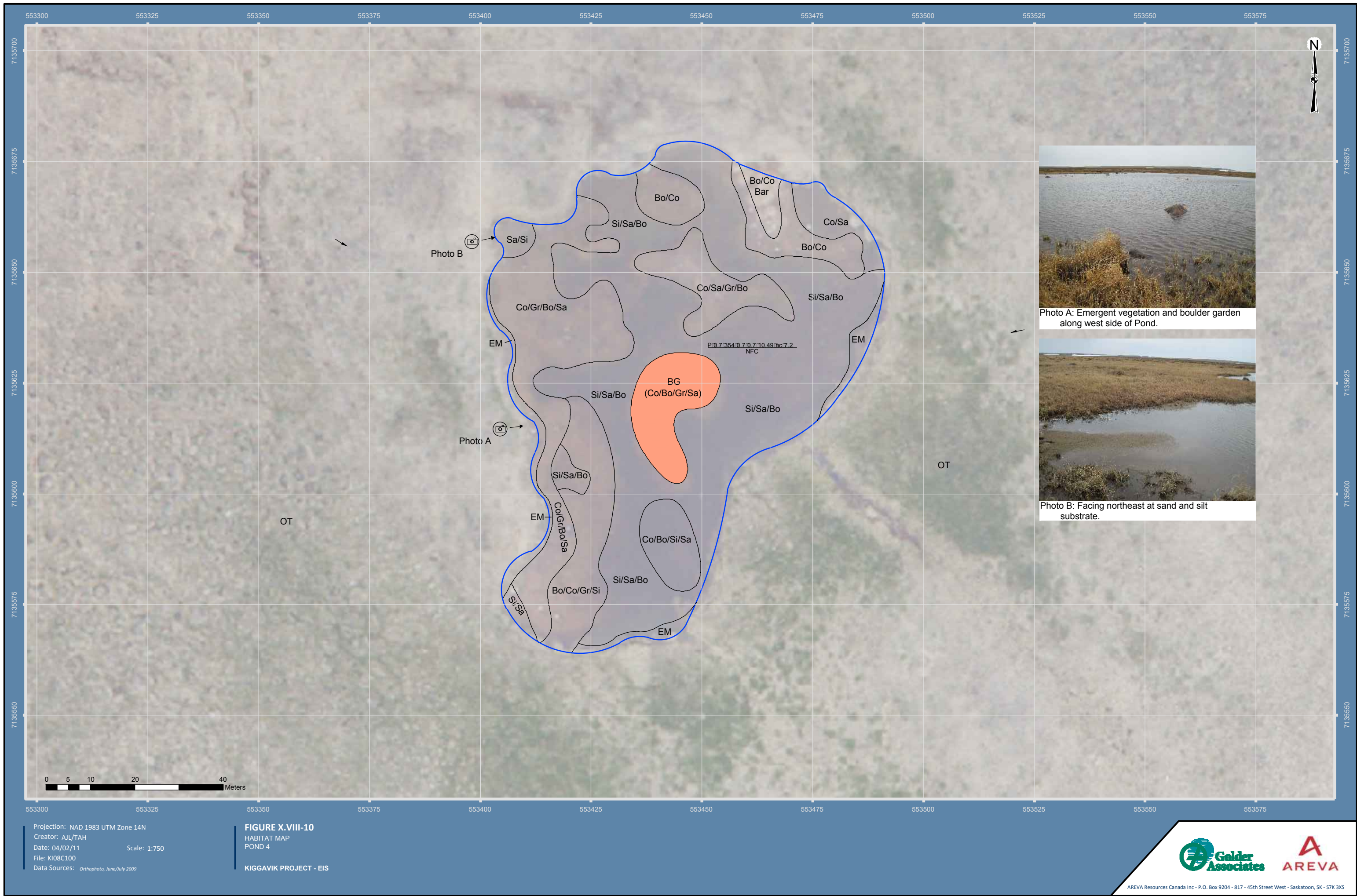
Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing
	Watercourse
	Width
	Depth

Site
Summary
Symbol

	Lake (L), Wetland (W) or Pond (P)
	Surface Area (ha)
	Main Shoreline Perimeter (m)
	Max Depth (m)
	Secchi Depth (m)
	Dissolved Oxygen (mg/L)
	Conductivity (µS/cm)
	pH
	Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microseimens per centimetre
Max depth was the depth recorded at sampling locattions.



Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	EM	Emergent Vegetation
	MO	Moss
	OR	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
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	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
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	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

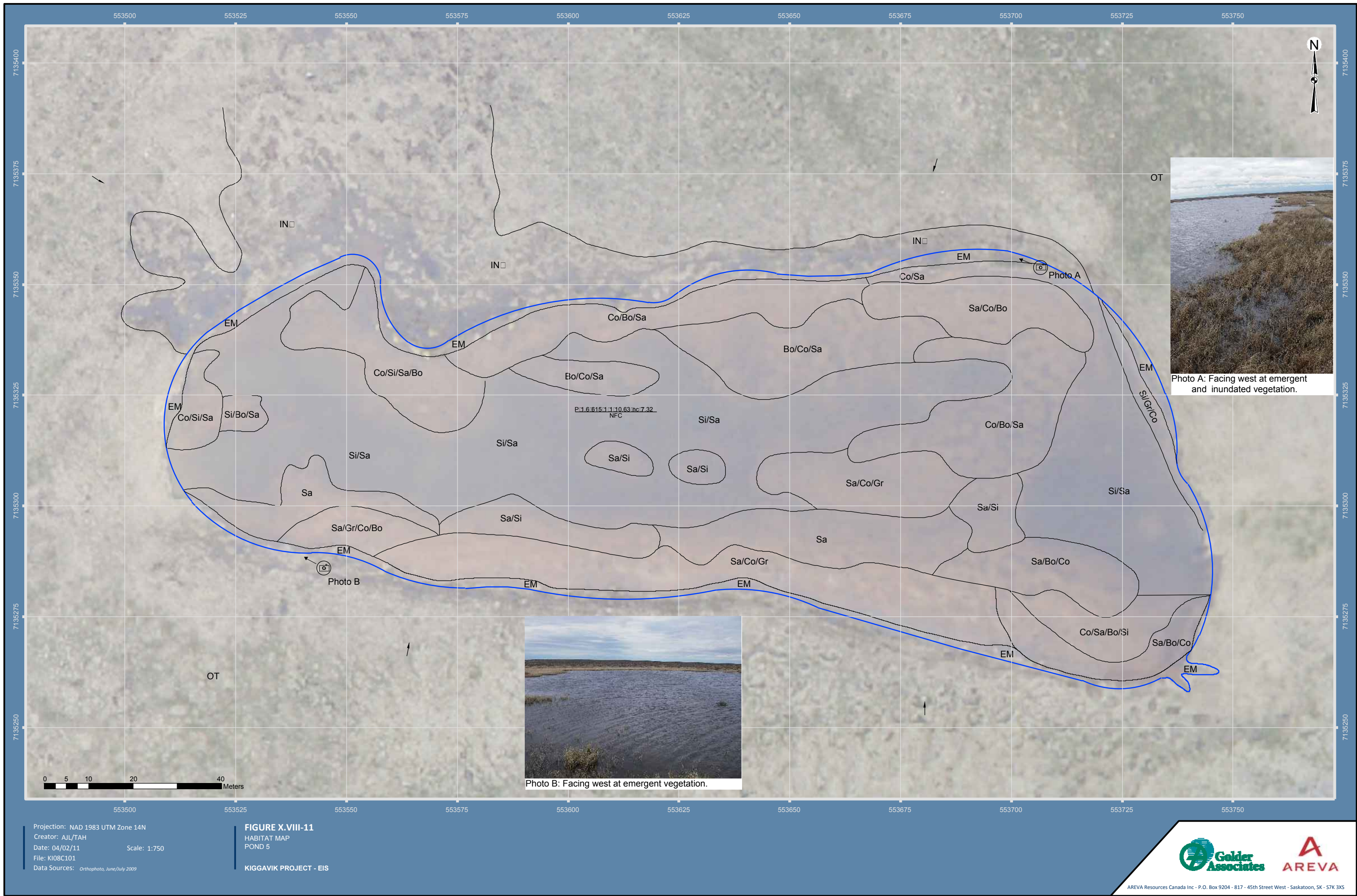
Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing
	Watercourse
	Width
	Depth

Site
Summary
Symbol

	Lake (L), Wetland (W) or Pond (P)
	Surface Area (ha)
	Main Shoreline Perimeter (m)
	Max Depth (m)
	Secchi Depth (m)
	Dissolved Oxygen (mg/L)
	Conductivity (µS/cm)
	pH
	Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microseimens per centimetre
Max depth was the depth recorded at sampling locattions.



Legend - Lakes, Wetlands, Ponds

Substrate Types		
Cl		Clay
Si		Silt
Sa		Sand
Gr		Gravel
Co		Cobble
Bo		Boulder
Bd		Bedrock
Or		Organic

Habitat Features		
XXXX	BD	Beaver Dam
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Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
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	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	EM	Emergent Vegetation
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

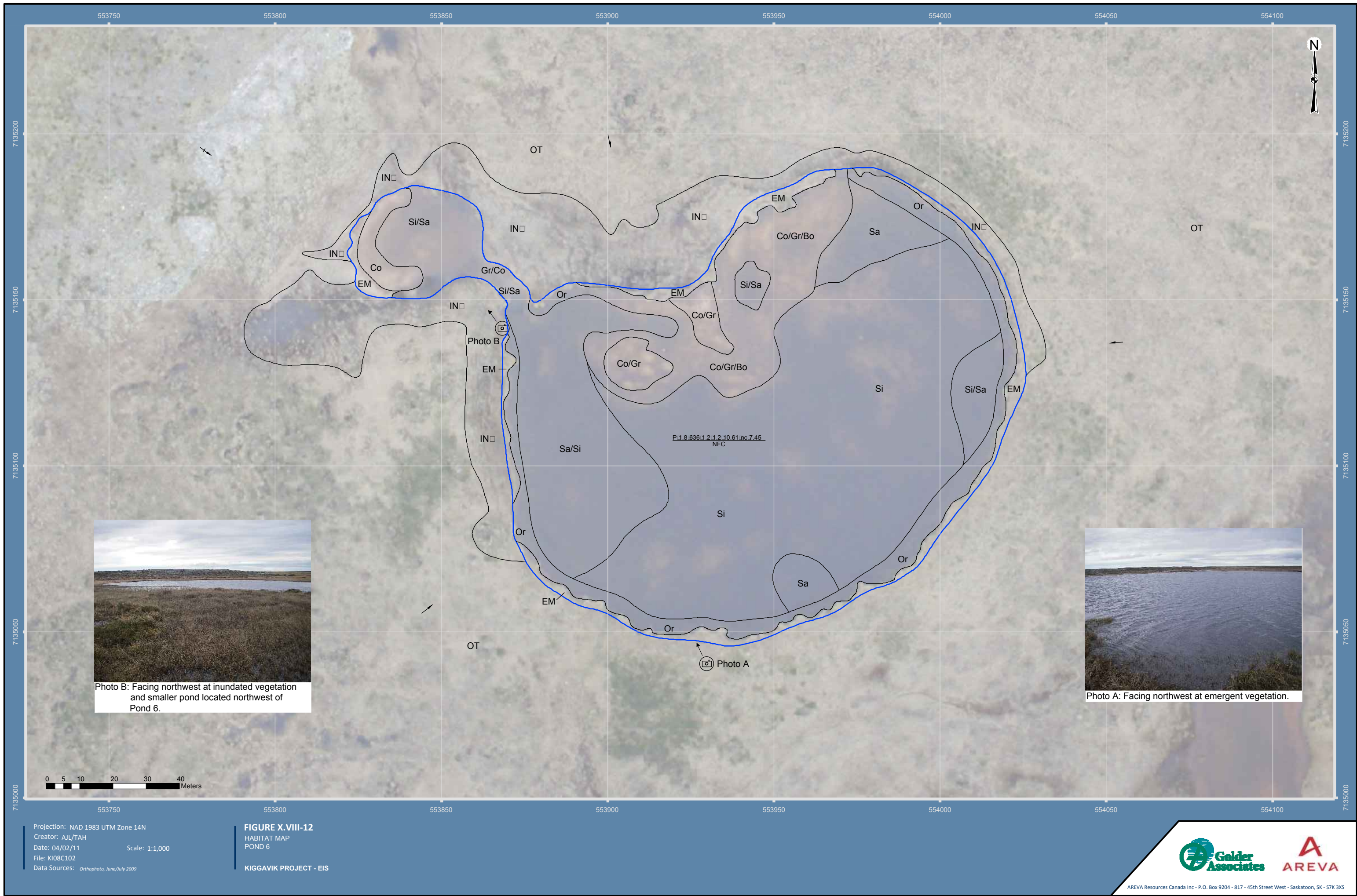
Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing
	Watercourse
	Width
	Depth

Site
Summary
Symbol

	Lake (L), Wetland (W) or Pond (P)
	Surface Area (ha)
	Main Shoreline Perimeter (m)
	Max Depth (m)
	Secchi Depth (m)
	Dissolved Oxygen (mg/L)
	Conductivity (µS/cm)
	pH
	Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microseimens per centimetre
Max depth was the depth recorded at sampling locations.



Legend - Lakes, Wetlands, Ponds

Substrate Types		
Cl		Clay
Si		Silt
Sa		Sand
Gr		Gravel
Co		Cobble
Bo		Boulder
Bd		Bedrock
Or		Organic

Bank/Upland Vegetation Types		
	BA	Bare Ground
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	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
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	SH	Shrubs
	EM	Emergent Vegetation
	MO	Moss
	OR	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
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	IV	Instream Vegetation
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	LWD	Large Woody Debris
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G	Gullying

Capture Methods		
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	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

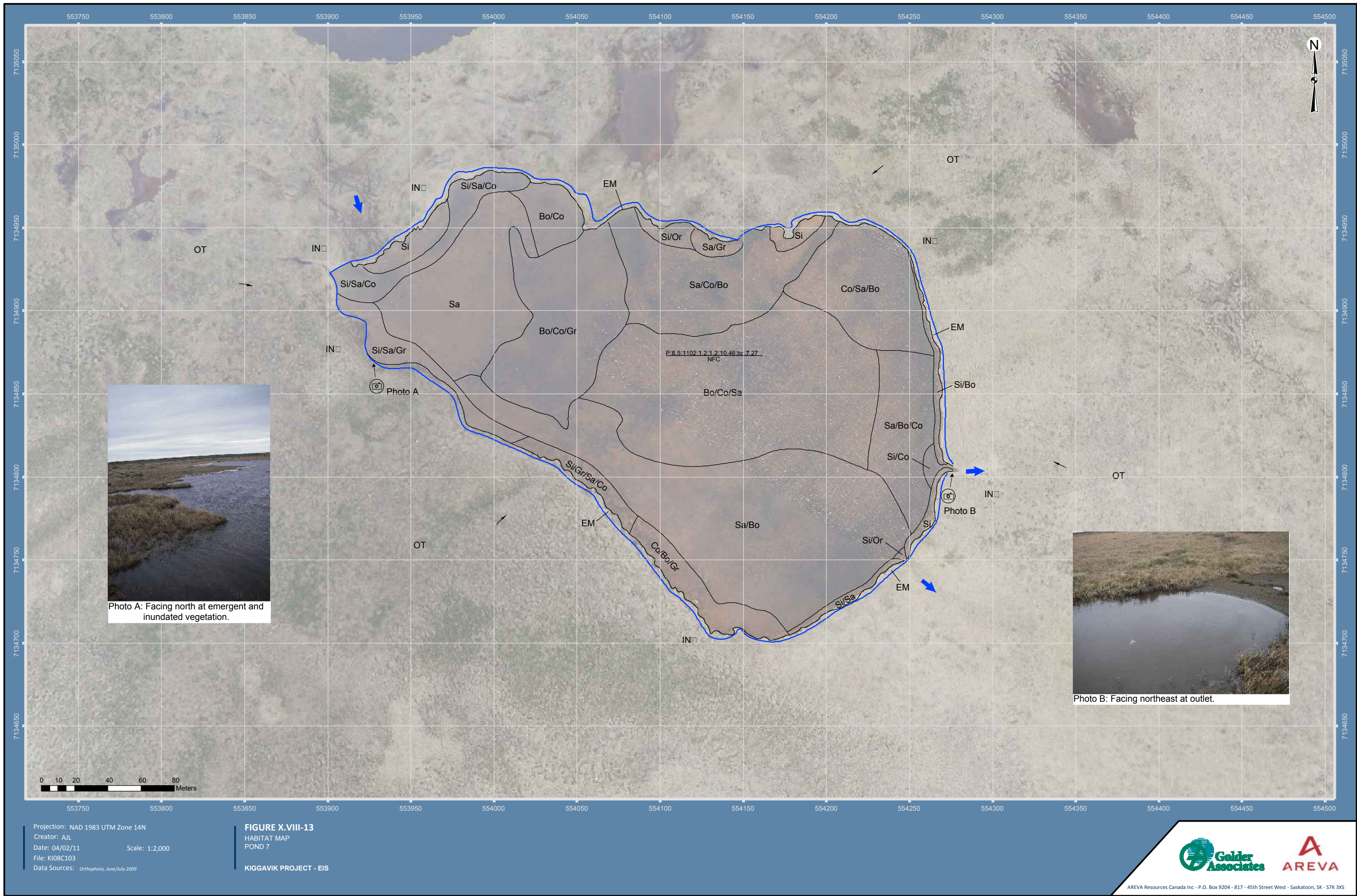
Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing
	Watercourse
	Width
	Depth

Site
Summary
Symbol

	Lake (L), Wetland (W) or Pond (P)
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	Secchi Depth (m)
	Dissolved Oxygen (mg/L)
	Conductivity (µS/cm)
	pH
	Fish Species

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Max depth was the depth recorded at sampling locattions.



Legend - Lakes, Wetlands, Ponds

Substrate Types		
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Co		Cobble
Bo		Boulder
Bd		Bedrock
Or		Organic

Habitat Features		
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Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

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	GF/SH	Grass/Forbs/Shrubs
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	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
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	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

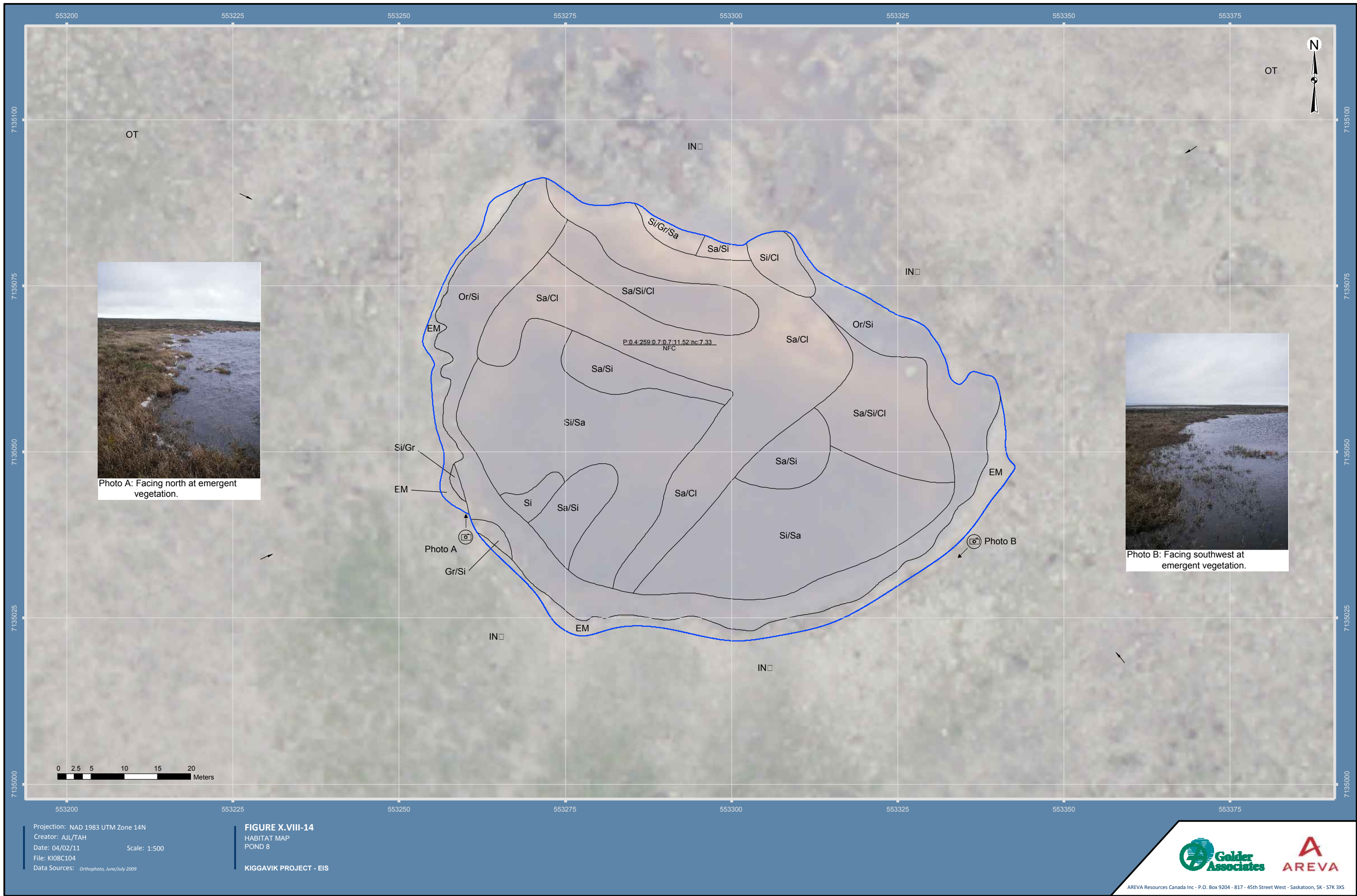
Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing
	Watercourse
	Width
	Depth

Site
Summary
Symbol

	Lake (L), Wetland (W) or Pond (P)
	Surface Area (ha)
	Main Shoreline Perimeter (m)
	Max Depth (m)
	Secchi Depth (m)
	Dissolved Oxygen (mg/L)
	Conductivity (µS/cm)
	pH
	Fish Species

Notes:
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Max depth was the depth recorded at sampling locattions.



Legend - Lakes, Wetlands, Ponds

Substrate Types		
Cl		Clay
Si		Silt
Sa		Sand
Gr		Gravel
Co		Cobble
Bo		Boulder
Bd		Bedrock
Or		Organic

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
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	CF	Coniferous Forest
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	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	EM	Emergent Vegetation
	MO	Moss
	OR	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
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	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
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	RW	Root Wad
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	SM	Submergent Vegetation
	UCB	Undercut Bank
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Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
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Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
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	FF	Fish Fence
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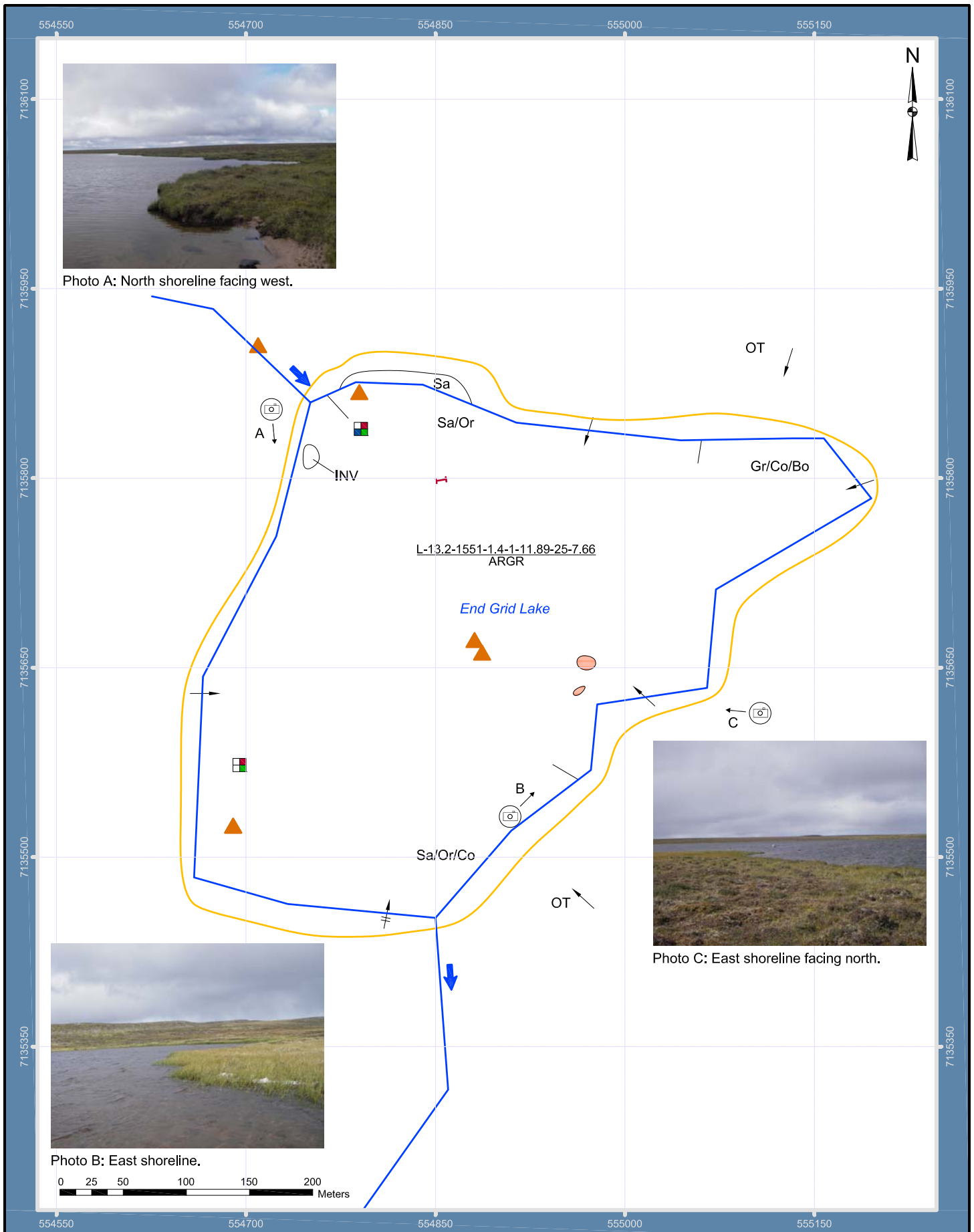
Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing
	Watercourse
	Width
	Depth

Site
Summary
Symbol

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
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Max depth was the depth recorded at sampling locattions.

Lake (L), Wetland (W) or Pond (P)
Surface Area (ha)
Main Shoreline Perimeter (m)
Max Depth (m)
Secchi Depth (m)
Dissolved Oxygen (mg/L)
Conductivity (µS/cm)
pH
Fish Species



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C004
 Data Sources: Department of Energy, Mines and Resources,
 The Surveys and Mapping Branch,
 Map Sheet 66A

FIGURE X.VIII-15

HABITAT MAP
 END GRID LAKE

KIGGAVERK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
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		Sand Bar
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Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
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	DF	Deciduous Forest
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	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.



Photo D: Facing south showing east bank.



Photo A: Facing south showing west bank.



Photo B: Cobble/gravel substrate.



Photo C: Facing south showing boulder garden in south end of lake.

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
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GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+→	Intermediate Slope (6-30%)
+→+→	Steep Slope (31-70%)
+→+→+→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Habitat Features	
XXXX	Beaver Dam
█	Man-Made Dam
BL	Beaver Lodge
BG	Boulder Garden
	Bridge
I	Culvert
#	Debris Pile
EM	Emergent Vegetation
→	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
MIL	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
●	Sand Bar
SIL	Singular Island
#	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
■	Water
■	Sediment
■	Benthic
●	Fish

Capture Methods	
—	BP Electrofishing - Backpack
—	EF Electrofishing - Boat
I	GN Gill Net
—	SN Seine
⊠	FF Fish Fence
▲	MT Minnow Trap
▲	AN Angling
⊠	HN/TN Hoop Net/Trap Net

General	
→	Photo Location/Direction
C	Habitat Type Divider
/	Fish Bearing/Potential Bearing
—	Watercourse
o	Width
o	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
Surface Area (ha)
Main Shoreline Perimeter (m)
Max Depth (m)
Secchi Depth (m)
Dissolved Oxygen (mg/L)
Conductivity (µS/cm)
pH

Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microsiemens per centimetre
Max depth was the depth recorded at sampling locations.



Photo D: Facing west showing silt beach.



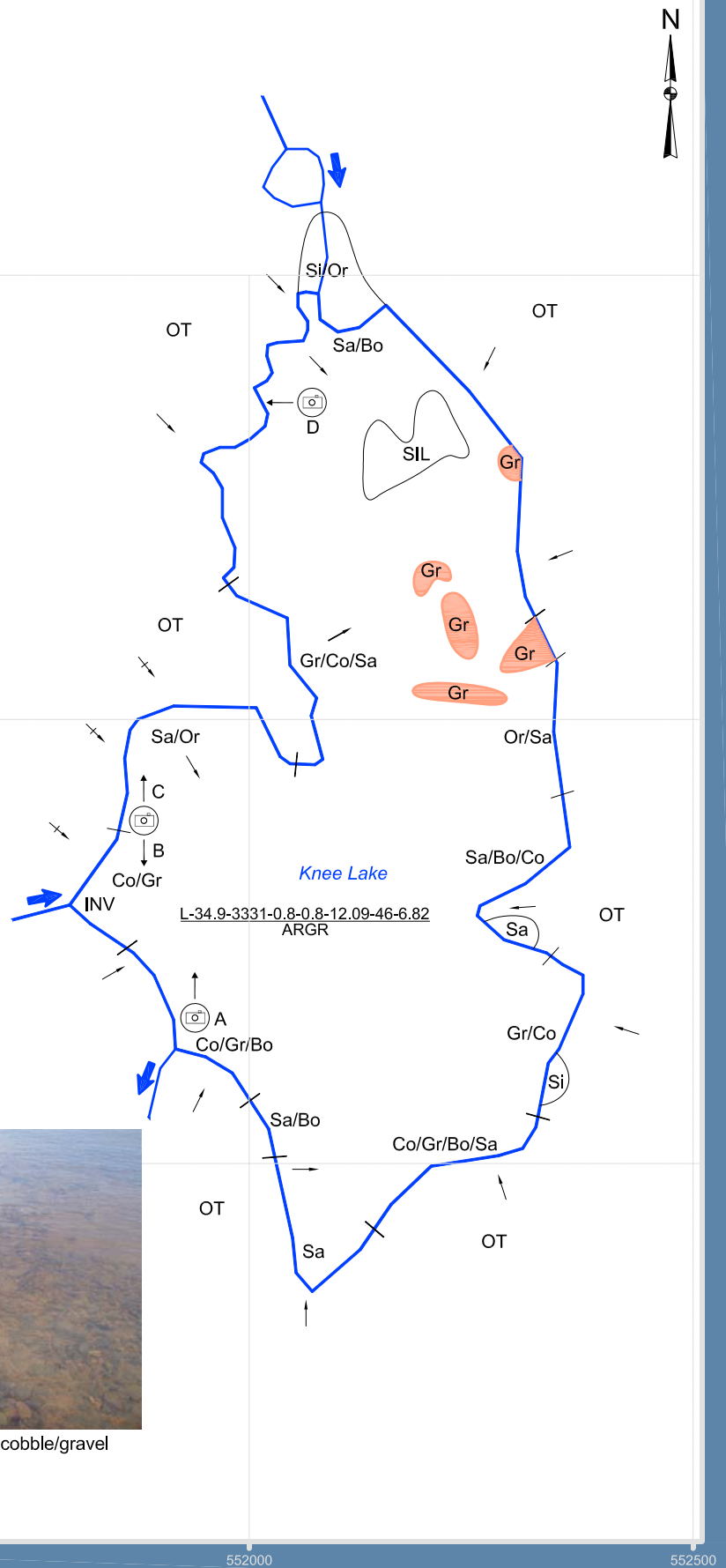
Photo C: Facing north showing shoreline.



Photo B: Facing south showing grass shoreline.



Photo A: Facing north showing cobble/gravel substrate.



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C016
 Data Sources: NTS Mapsheet 66A/5

Scale: 1:7,500

FIGURE X.VIII-17

HABITAT MAP
 KNEE LAKE

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc. - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.



Photo A: Facing southeast showing boulder garden at entrance of bay at north end of lake.



Photo E: Cobble/boulder substrate.



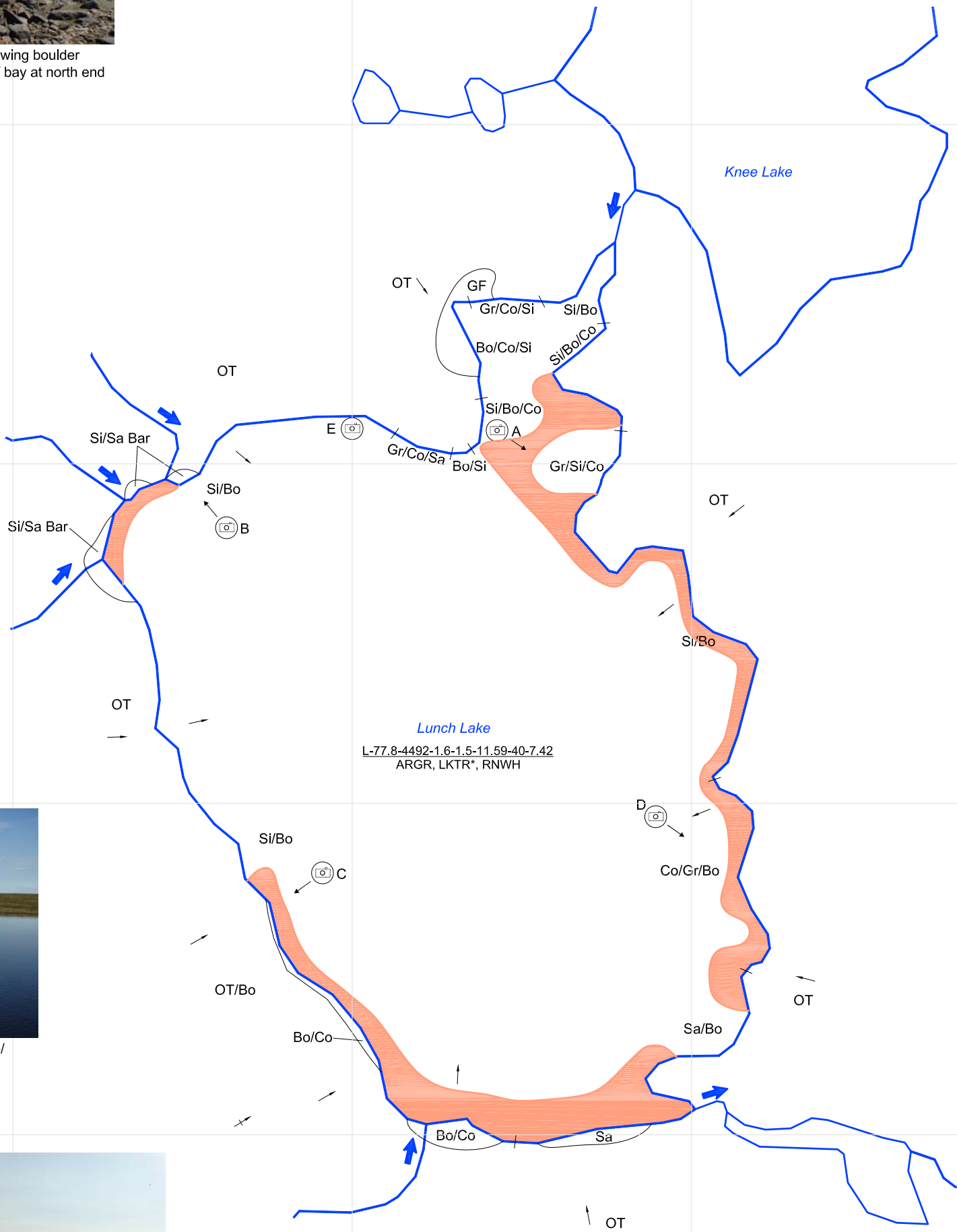
Photo B: Facing northwest showing silt/sand beach on northwest bank.



Photo C: Facing southwest showing cobble/boulder shoreline on west bank.



Photo D: Facing southeast showing boulder garden on east bank.



0 37.5 75 150 225 300 Meters

Note:
* = Historical Information

Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: K108C017
Data Sources: NTS Mapsheet 66A/5

FIGURE X.VIII-18
HABITAT MAP
LUNCH LAKE

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+→	Intermediate Slope (6-30%)
+→+→	Steep Slope (31-70%)
+→+→+→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Habitat Features	
XXXX	Beaver Dam
█	Man-Made Dam
BL	Beaver Lodge
BG	Boulder Garden
	Bridge
I	Culvert
#	Debris Pile
EM	Emergent Vegetation
→	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
MIL	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
●	Sand Bar
SIL	Singular Island
#	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
■	Water
■	Sediment
■	Benthic
●	Fish

Capture Methods	
—	BP Electrofishing - Backpack
—	EF Electrofishing - Boat
I	GN Gill Net
—	SN Seine
⊠	FF Fish Fence
▲	MT Minnow Trap
▲	AN Angling
⊠	HN/TN Hoop Net/Trap Net

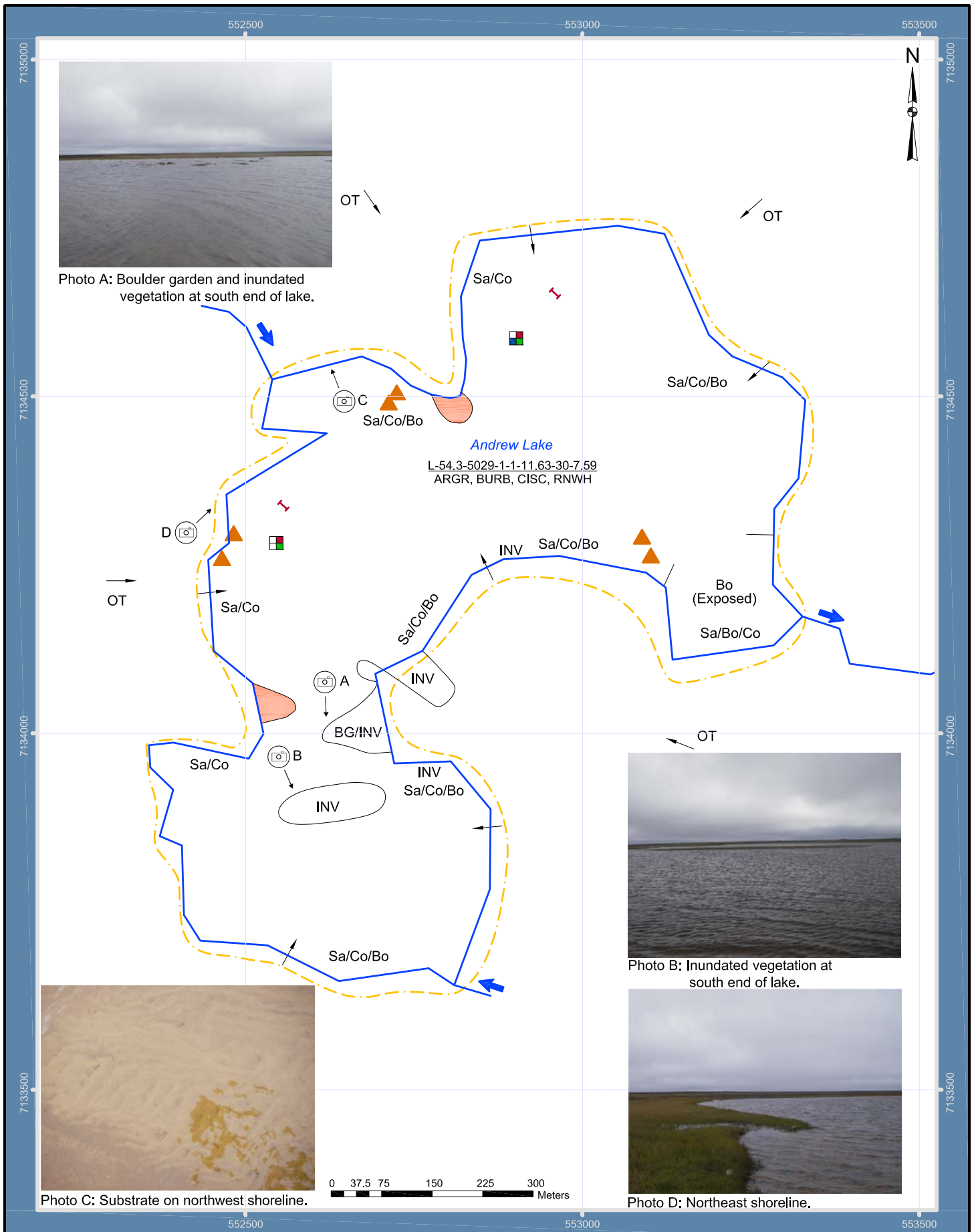
General	
→	Photo Location/Direction
C	Habitat Type Divider
/	Fish Bearing/Potential Bearing
—	Watercourse
o	Width
o	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
Surface Area (ha)
Main Shoreline Perimeter (m)
Max Depth (m)
Secchi Depth (m)
Dissolved Oxygen (mg/L)
Conductivity (µS/cm)
pH

Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microsiemens per centimetre
Max depth was the depth recorded at sampling locations.



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C001
 Data Sources: Department of Energy, Mines and Resources,
 The Surveys and Mapping Branch,
 Map Sheet 66A

FIGURE X.VIII-19
 HABITAT MAP
 ANDREW LAKE
 KIGGAVERK PROJECT - EIS



Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C009
 Data Sources: Department of Energy, Mines and Resources,
 The Surveys and Mapping Branch,
 Map Sheet 66A

FIGURE X.VIII-20

HABITAT MAP
 SHACK LAKE

KIGGAVERK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.



Photo A: Facing upstream at connecting channel between two areas of lake.



Photo B: Facing north at west shoreline.



Photo C: Facing downstream at top of connecting channel.

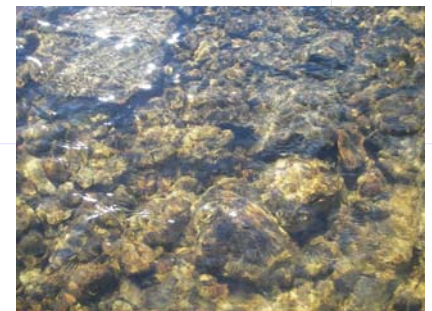
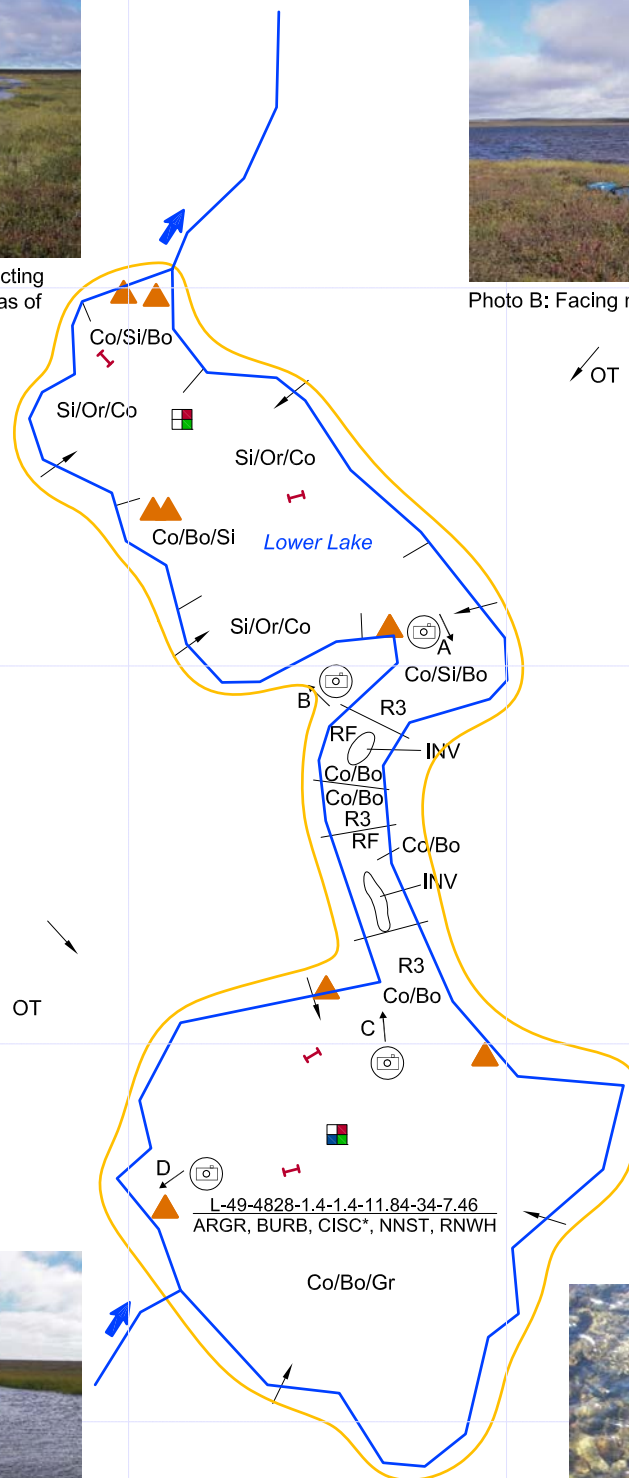


Photo D: Substrate in south end of lake.

0 50 100 200 300 400 Meters



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C006
 Data Sources: Department of Energy, Mines and Resources,
 The Surveys and Mapping Branch,
 Map Sheet 66A

FIGURE X.VIII-21

HABITAT MAP
 LOWER LAKE

KIGGAVERK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.



Photo A: North shoreline facing east.



Photo B: Rock island on southwest shoreline.

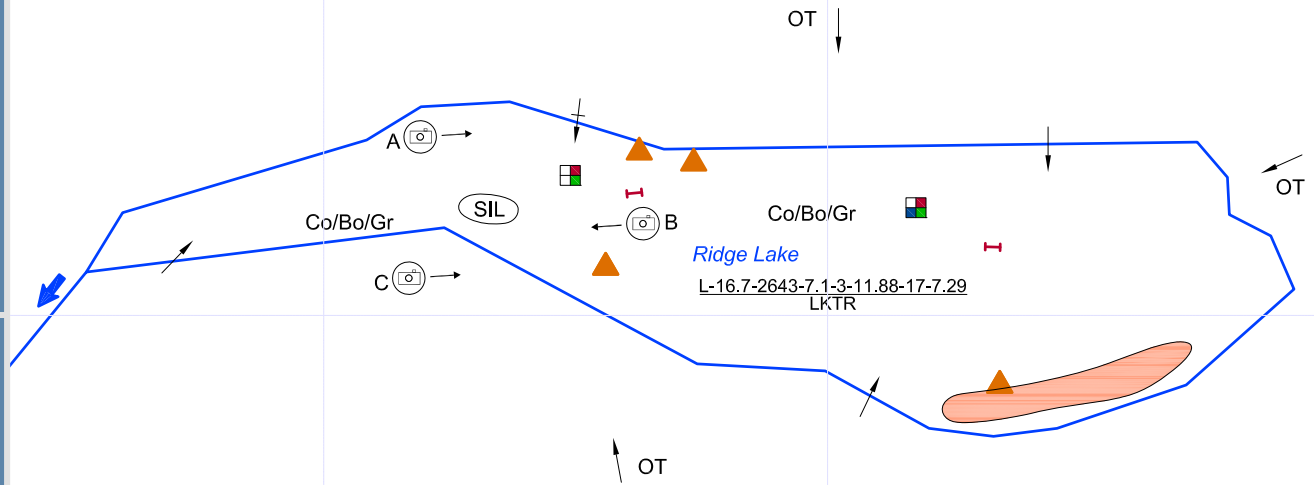
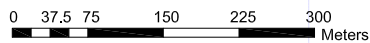


Photo C: South shoreline.



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C008
 Data Sources: Department of Energy, Mines and Resources,
 The Surveys and Mapping Branch,
 Map Sheet 66A

FIGURE X.VIII-22

HABITAT MAP
 RIDGE LAKE

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

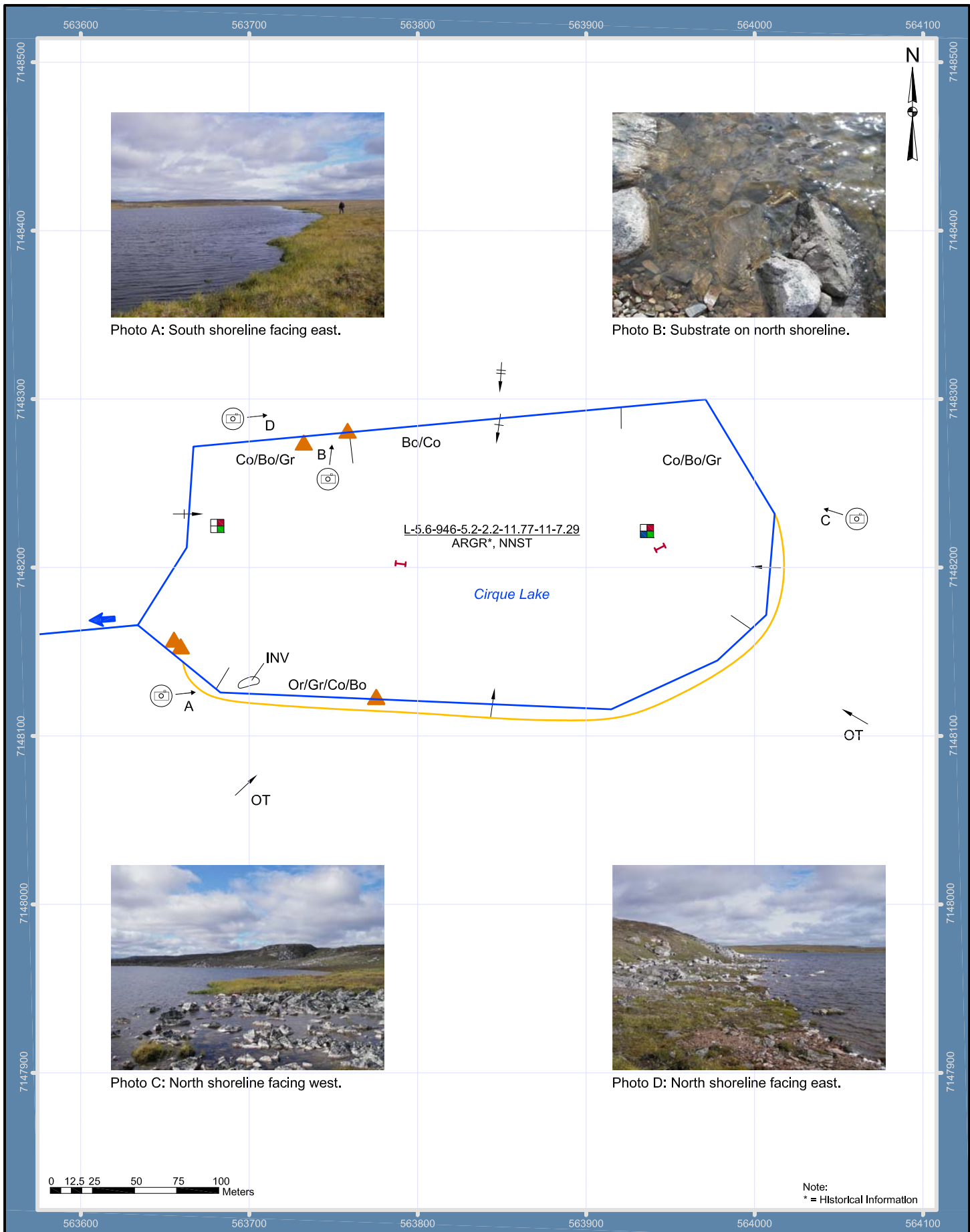
ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C002
 Data Sources: Department of Energy, Mines and Resources,
 The Surveys and Mapping Branch,
 Map Sheet 66A

FIGURE X.VIII-23

HABITAT MAP
 CIRQUE LAKE

KIGGAVERK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

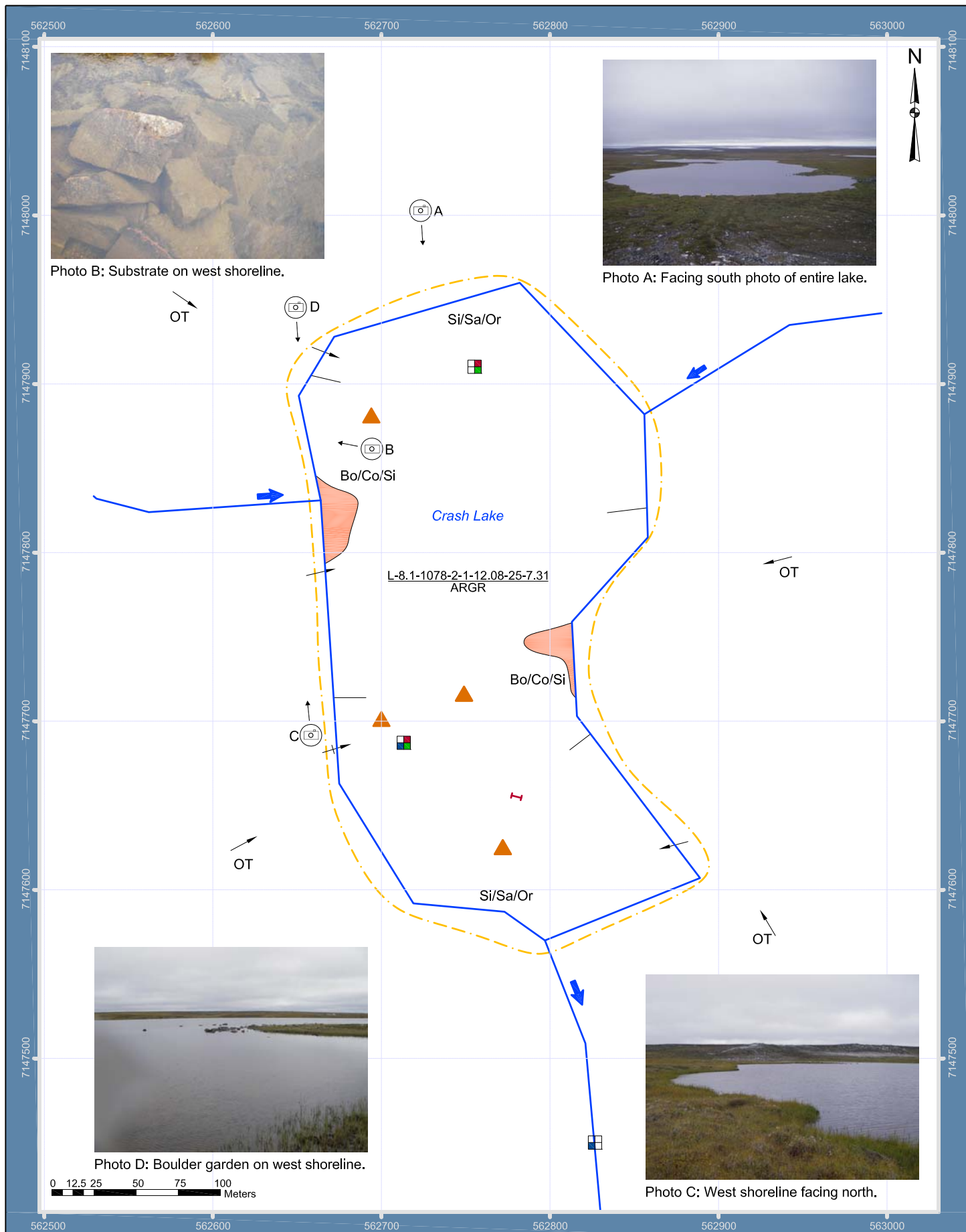
ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: KI08C003
 Data Sources: Department of Energy, Mines and Resources,
 The Surveys and Mapping Branch,
 Map Sheet 66A

FIGURE X.VIII-24

HABITAT MAP
 CRASH LAKE

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

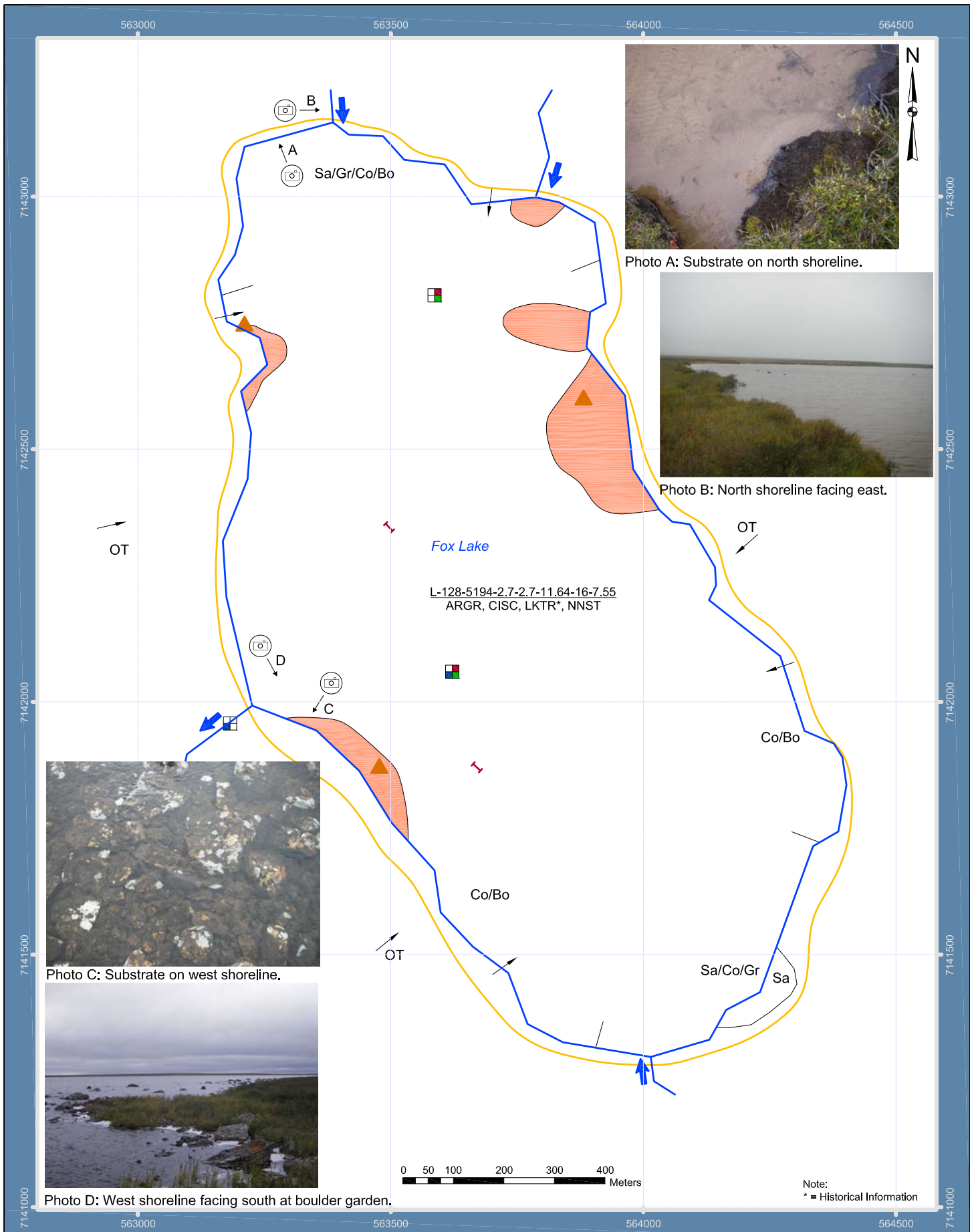
ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.



Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.

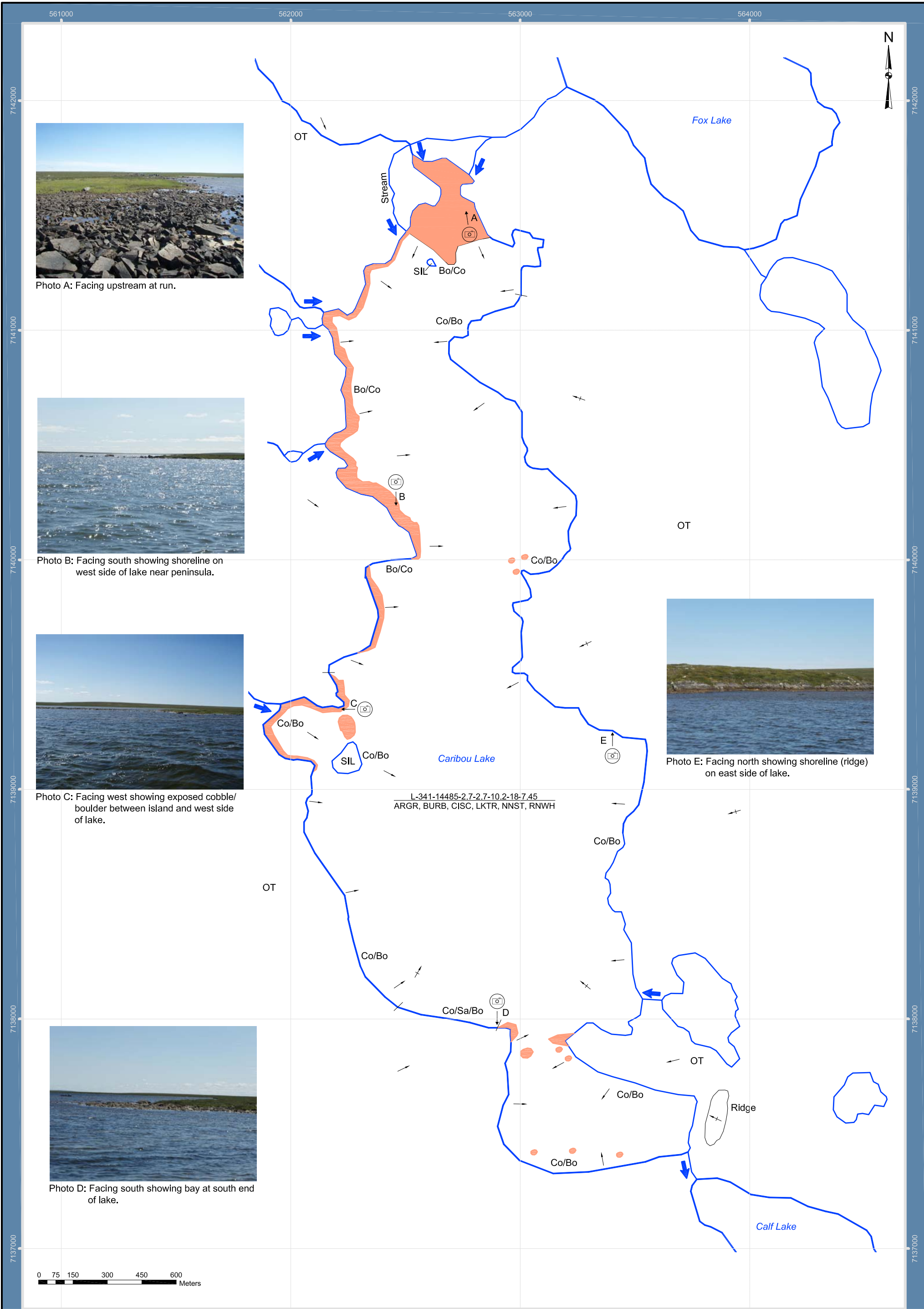


Photo A: Facing upstream at run.



Photo B: Facing south showing shoreline on west side of lake near peninsula.



Photo C: Facing west showing exposed cobble/boulder between island and west side of lake.



Photo E: Facing north showing shoreline (ridge) on east side of lake.



Photo D: Facing south showing bay at south end of lake.

L-341-14485-2.7-2.7-10.2-18-7.45
ARGR, BURB, CISC, LKTR, NNST, RNWH

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+→	Intermediate Slope (6-30%)
→++→	Steep Slope (31-70%)
→++++→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Habitat Features	
XXXX	Beaver Dam
████	Man-Made Dam
BL	Beaver Lodge
BG	Boulder Garden
	Bridge
I	Culvert
#	Debris Pile
EM	Emergent Vegetation
→	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
MIL	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
●	Sand Bar
SIL	Singular Island
#	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
■	Water
■	Sediment
■	Benthic
●	Fish

Capture Methods	
—	BP Electrofishing - Backpack
—	EF Electrofishing - Boat
I	GN Gill Net
—	SN Seine
⊠	FF Fish Fence
▲	MT Minnow Trap
▲	AN Angling
⊠	HN/TN Hoop Net/Trap Net

General	
→	Photo Location/Direction
C	Habitat Type Divider
/	Fish Bearing/Potential Bearing
—	Watercourse
o	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
Surface Area (ha)
Main Shoreline Perimeter (m)
Max Depth (m)
Secchi Depth (m)
Dissolved Oxygen (mg/L)
Conductivity (µS/cm)
pH

Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microsiemens per centimetre
Max depth was the depth recorded at sampling locations.

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
 Surface Area (ha)
 Main Shoreline Perimeter (m)
 Max Depth (m)
 Secchi Depth (m)
 Dissolved Oxygen (mg/L)
 Conductivity (µS/cm)
 pH
 Fish Species

Notes:

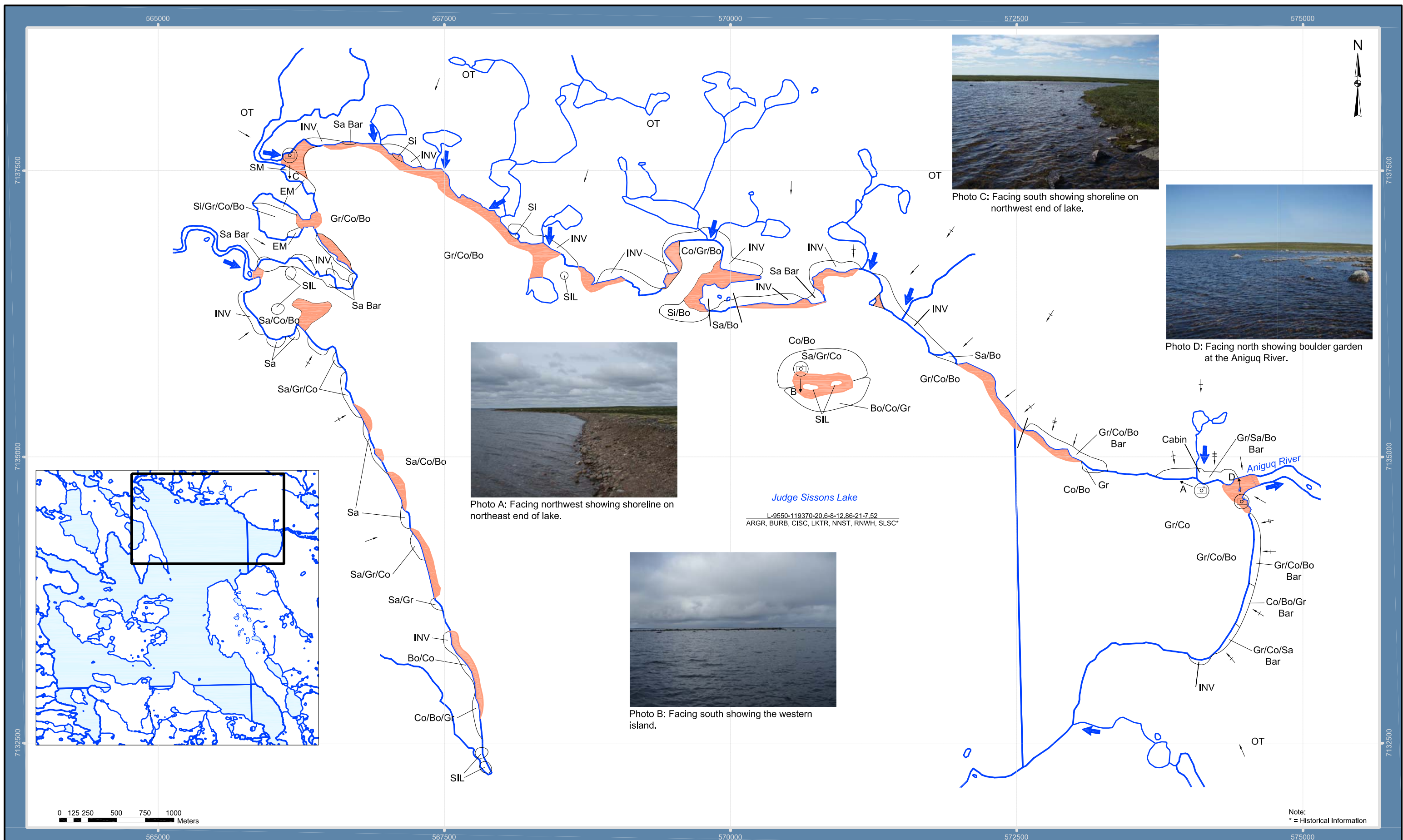
ha = hectares

m = metres

mg/L = milligrams per litre

µS/cm = microseimens per centimetre

Max depth was the depth recorded at sampling locations.



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C021
 Data Sources: NTS Mapsheet 66A/5, 6

FIGURE X.VIII-28
 HABITAT MAP
 NORTH PORTION OF JUDGE SISSONS LAKE
 KIGGAVIK PROJECT - EIS

Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+→	Intermediate Slope (6-30%)
+→+→	Steep Slope (31-70%)
+→+→+→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gully/ing

Habitat Features	
XXXX	Beaver Dam
█	Man-Made Dam
BL	Beaver Lodge
BG	Boulder Garden
	Bridge
I	Culvert
#	Debris Pile
EM	Emergent Vegetation
→	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
MIL	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
●	Sand Bar
SIL	Singular Island
#	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
■	Water
■	Sediment
■	Benthic
●	Fish

Capture Methods	
—	BP Electrofishing - Backpack
—	EF Electrofishing - Boat
I	GN Gill Net
—	SN Seine
▤	FF Fish Fence
▴	MT Minnow Trap
▴	AN Angling
⌘	HN/TN Hoop Net/Trap Net

General	
→	Photo Location/Direction
C	Habitat Type Divider
/	Fish Bearing/Potential Bearing
▀	Watercourse
o	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
Surface Area (ha)
Main Shoreline Perimeter (m)
Max Depth (m)
Secchi Depth (m)
Dissolved Oxygen (mg/L)
Conductivity (µS/cm)
pH

Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microsiemens per centimetre
Max depth was the depth recorded at sampling locations.



Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C019
Data Sources: NTS MapSheet 66A/5

FIGURE X.VIII-29a
HABITAT MAP
WEST BASIN OF SIAMESE LAKE
KIGGAVIK PROJECT - EIS



Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+→	Intermediate Slope (6-30%)
+→+→	Steep Slope (31-70%)
+→+→+→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Habitat Features	
XXXX	Beaver Dam
█	Man-Made Dam
BL	Beaver Lodge
BG	Boulder Garden
	Bridge
I	Culvert
#	Debris Pile
EM	Emergent Vegetation
→	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
MIL	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
●	Sand Bar
SIL	Singular Island
#	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
■	Water
■	Sediment
■	Benthic
●	Fish

Capture Methods	
—	BP Electrofishing - Backpack
—	EF Electrofishing - Boat
I	GN Gill Net
—	SN Seine
⊘	FF Fish Fence
▲	MT Minnow Trap
▲	AN Angling
⊘	HN/TN Hoop Net/Trap Net

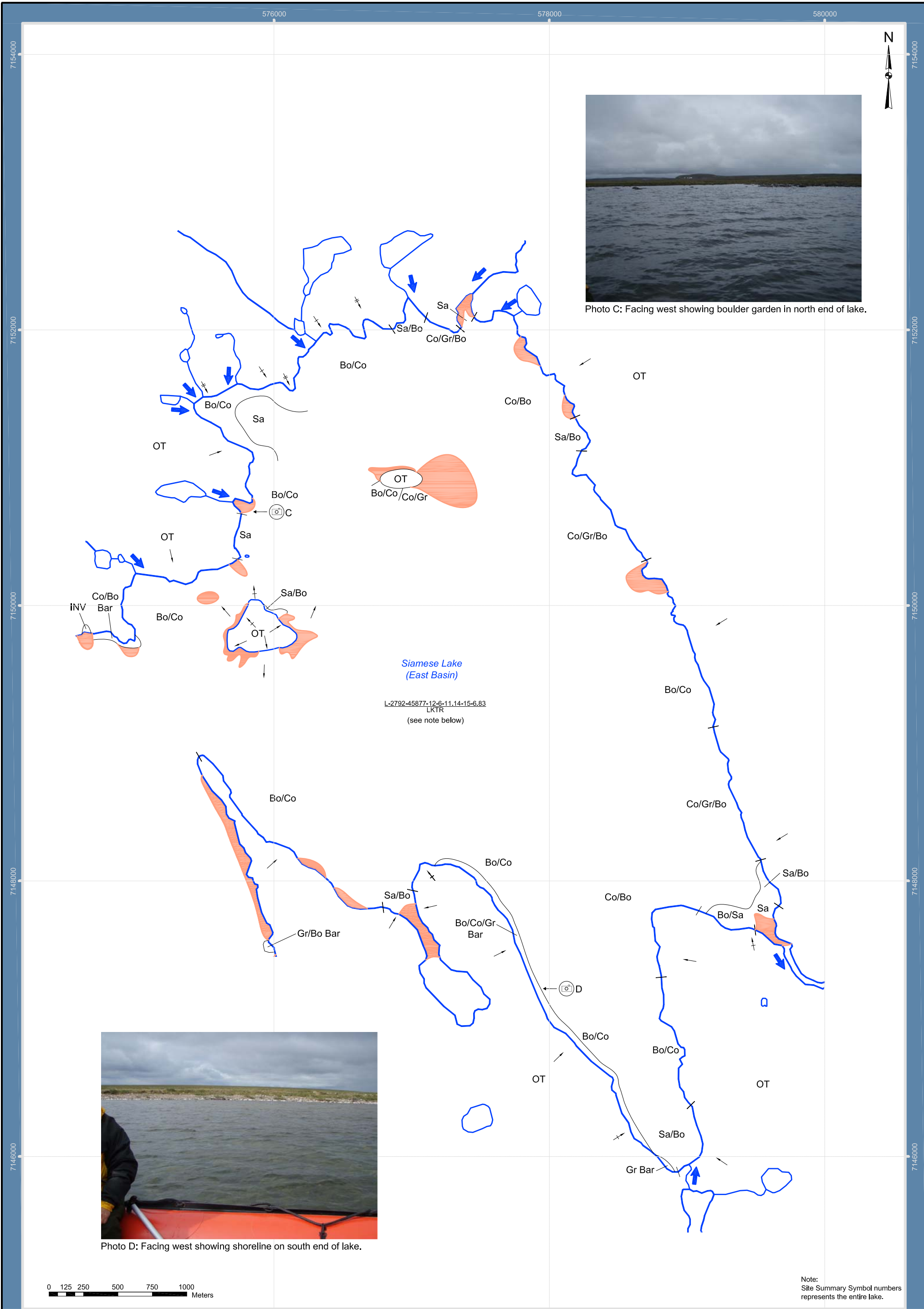
General	
→	Photo Location/Direction
C	Habitat Type Divider
/	Fish Bearing/Potential Bearing
—	Watercourse
o	Width
o	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
Surface Area (ha)
Main Shoreline Perimeter (m)
Max Depth (m)
Secchi Depth (m)
Dissolved Oxygen (mg/L)
Conductivity (µS/cm)
pH

Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microsiemens per centimetre
Max depth was the depth recorded at sampling locations.



Legend - Lakes, Wetlands, Ponds

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+→	Intermediate Slope (6-30%)
+→+→	Steep Slope (31-70%)
+→+→+→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Habitat Features	
XXXX	Beaver Dam
█	Man-Made Dam
BL	Beaver Lodge
BG	Boulder Garden
	Bridge
I	Culvert
#	Debris Pile
EM	Emergent Vegetation
→	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
MIL	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
●	Sand Bar
SIL	Singular Island
#	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
■	Water
■	Sediment
■	Benthic
●	Fish

Capture Methods	
—	BP Electrofishing - Backpack
—	EF Electrofishing - Boat
I	GN Gill Net
—	SN Seine
⊘	FF Fish Fence
▲	MT Minnow Trap
▲	AN Angling
⊘	HN/TN Hoop Net/Trap Net

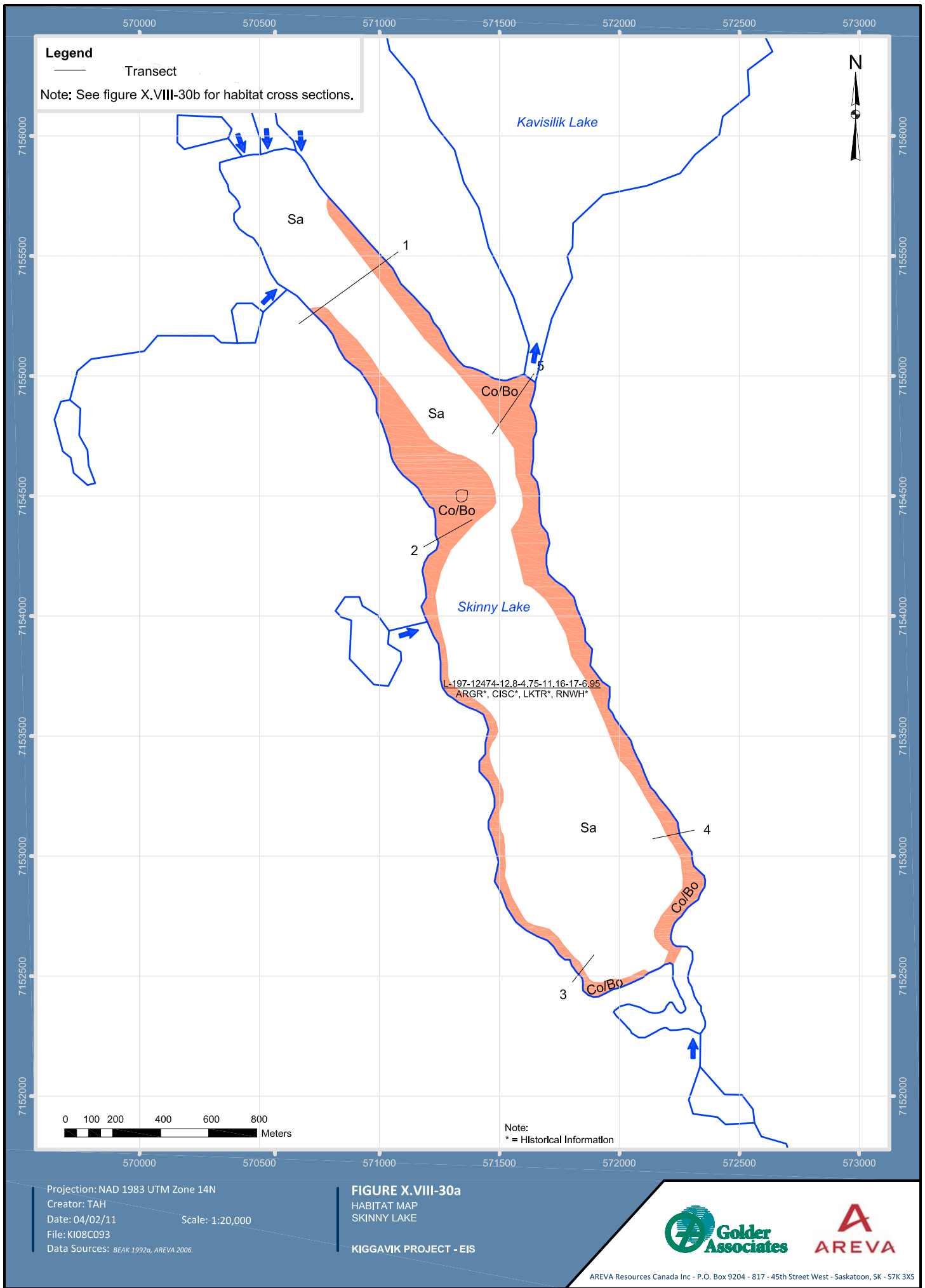
General	
→	Photo Location/Direction
C	Habitat Type Divider
/	Fish Bearing/Potential Bearing
—	Watercourse
o	Depth

Site Summary Symbol

Lake (L), Wetland (W) or Pond (P)
Surface Area (ha)
Main Shoreline Perimeter (m)
Max Depth (m)
Secchi Depth (m)
Dissolved Oxygen (mg/L)
Conductivity (µS/cm)
pH

Fish Species

Notes:
ha = hectares
m = metres
mg/L = milligrams per litre
µS/cm = microsiemens per centimetre
Max depth was the depth recorded at sampling locations.



Projection: NAD 1983 UTM Zone 14N
Creator: TAH
Date: 04/02/11
File: KIO8C093
Data Sources: BEAK 1992a, AREVA 2006.

Scale: 1:20,000

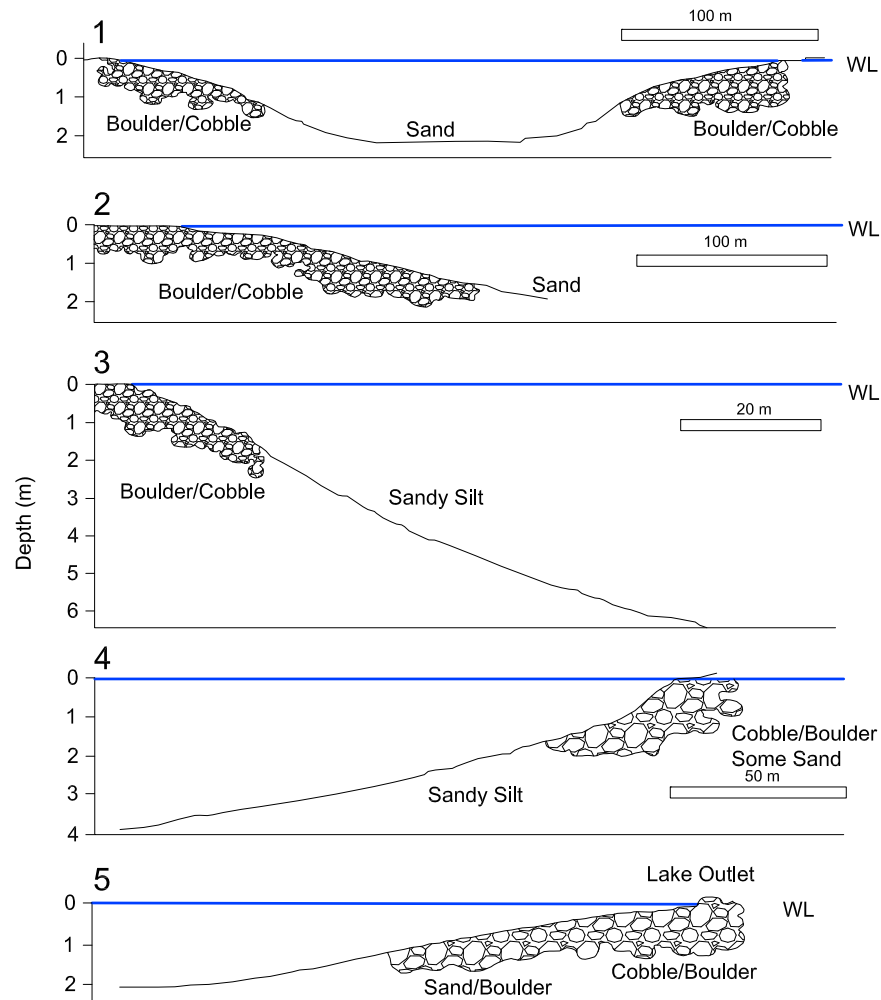
FIGURE X.VIII-30a

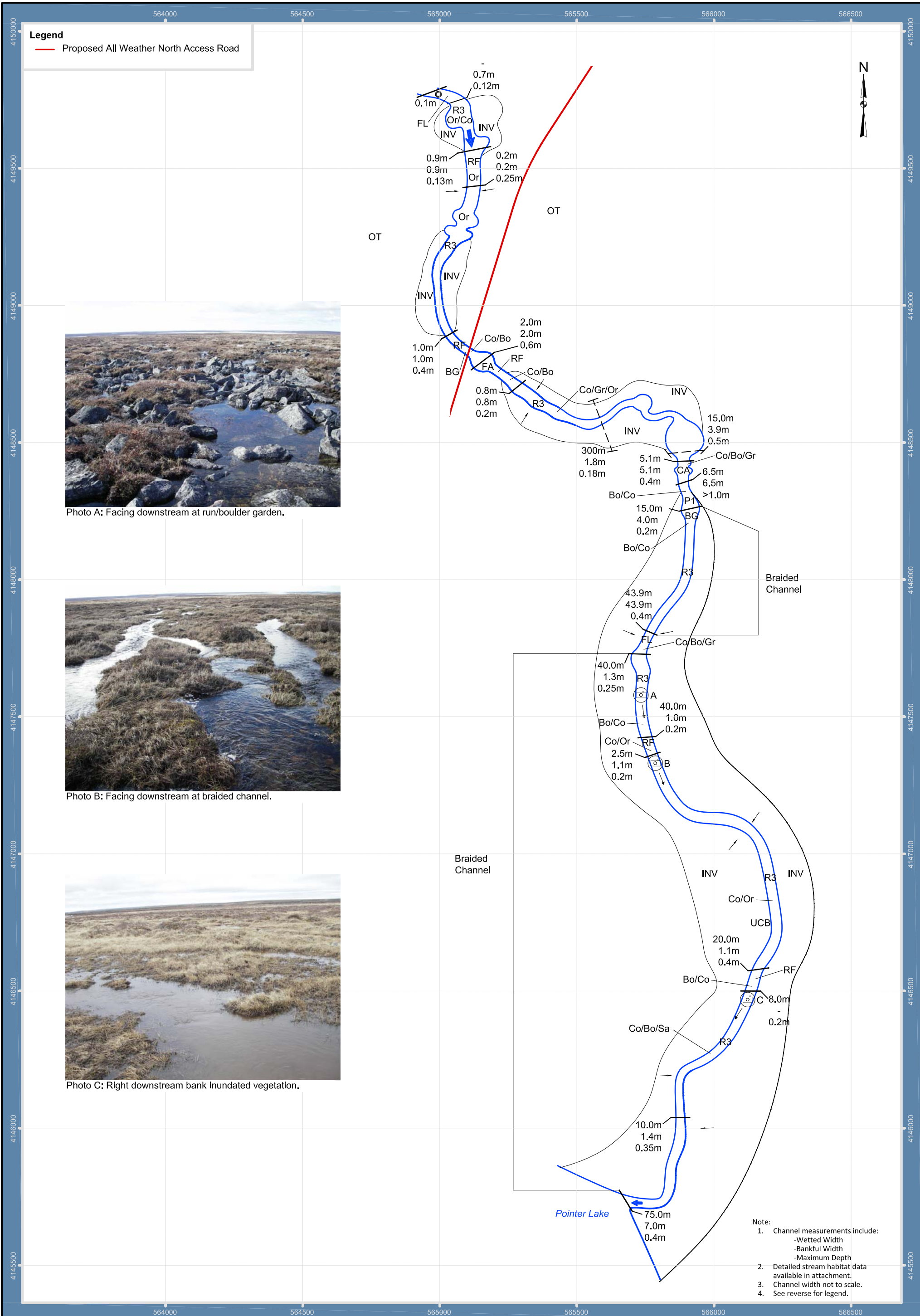
HABITAT MAP
SKINNY LAKE

KIGGAVIK PROJECT - EIS



Schematic Representation of Aquatic Habitats
at Five Cross sections in Skinny Lake, August 1991





Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

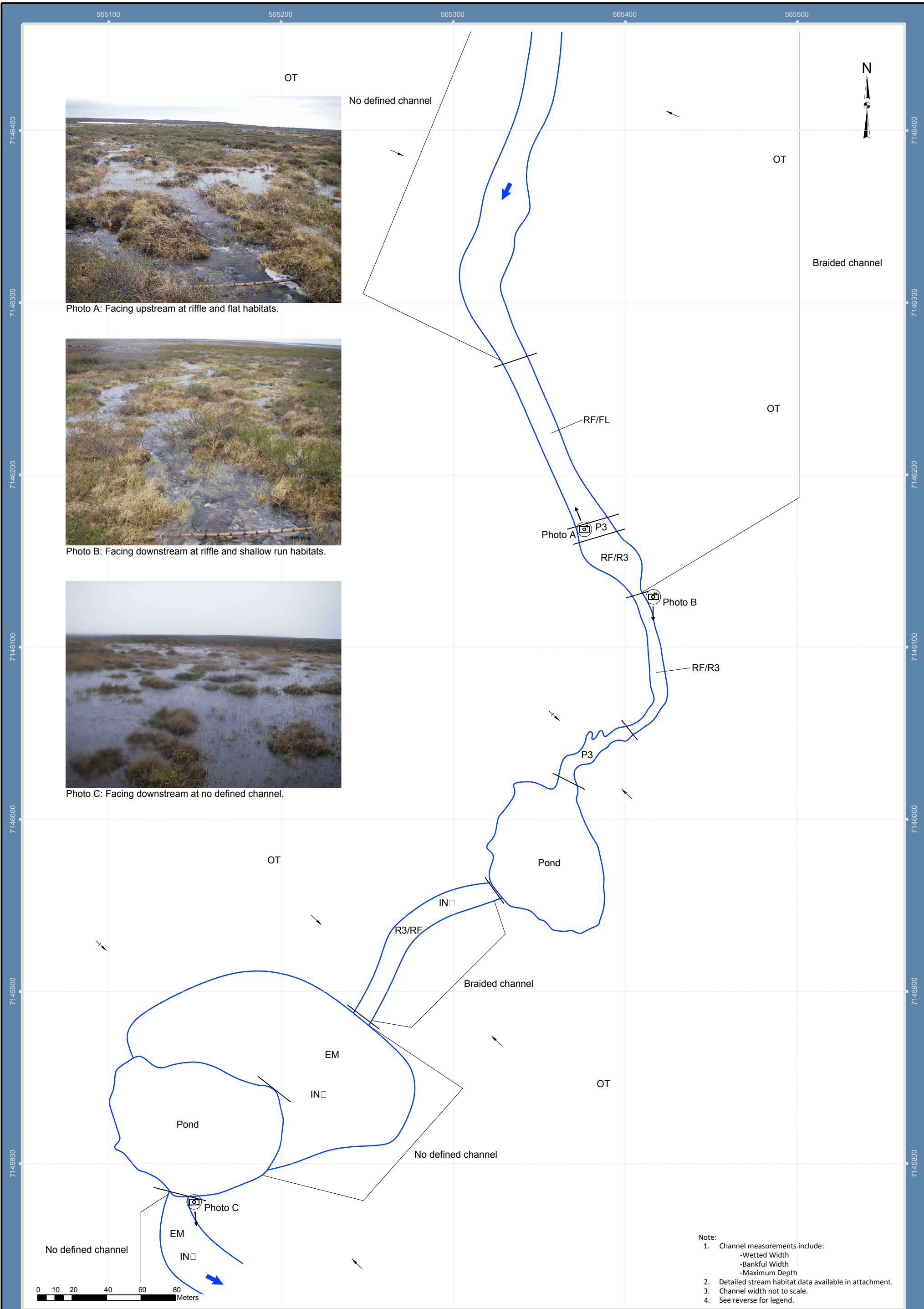
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: AJL
Date: 04/02/11
File: X.VII-32a
Data Sources: NTS MAPSHEET 66A/5

FIGURE X.VII-32a
HABITAT MAP
UPPER TRIBUTARY TO THE NORTHEAST INFLOW OF POINTER LAKE
KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
▬	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

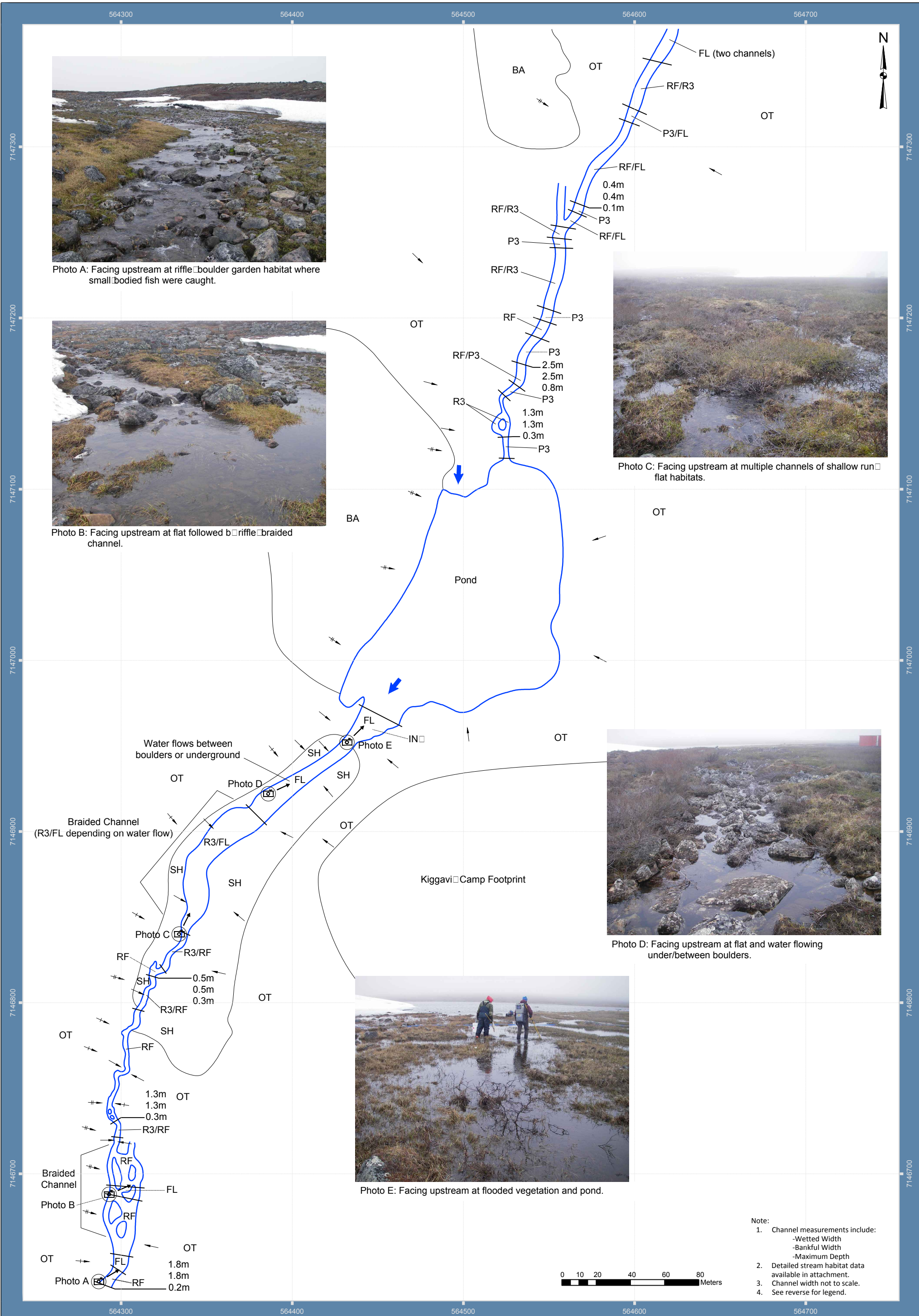
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: AJL
Date: 04/02/11
File: X.VIII-33a
Data Sources: NTS Mapsheet 66A/5

FIGURE X.VIII-33a
HABITAT MAP
UPPER NORTHWEST INFLOW OF POINTER LAKE
KIGGAVIK PROJECT - EIS

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
🔗	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres

Legend

Proposed All Weather North Access Road



Photo A: Facing downstream at flat and shallow pool habitats located between two ponds.



Photo B: Facing downstream at flat habitat with abundant emergent vegetation.



Photo C: Facing downstream at shallow run habitat with abundant emergent vegetation.



Photo D: Facing downstream at flat habitat.

- Note:
- Channel measurements include:
 - Wetted Width
 - Bankful Width
 - Maximum Depth
 - Detailed stream habitat data available in attachment.
 - Channel width not to scale.
 - See reverse for legend.

Projection: NAD 1983 UTM Zone 14N
Creator: AJL
Date: 04/02/11
File: X.VIII-33b
Data Sources: NTS Mapsheet 66A/5

FIGURE X.VIII-33b
HABITAT MAP
UPPER NORTHWEST INFLOW OF POINTER LAKE
KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

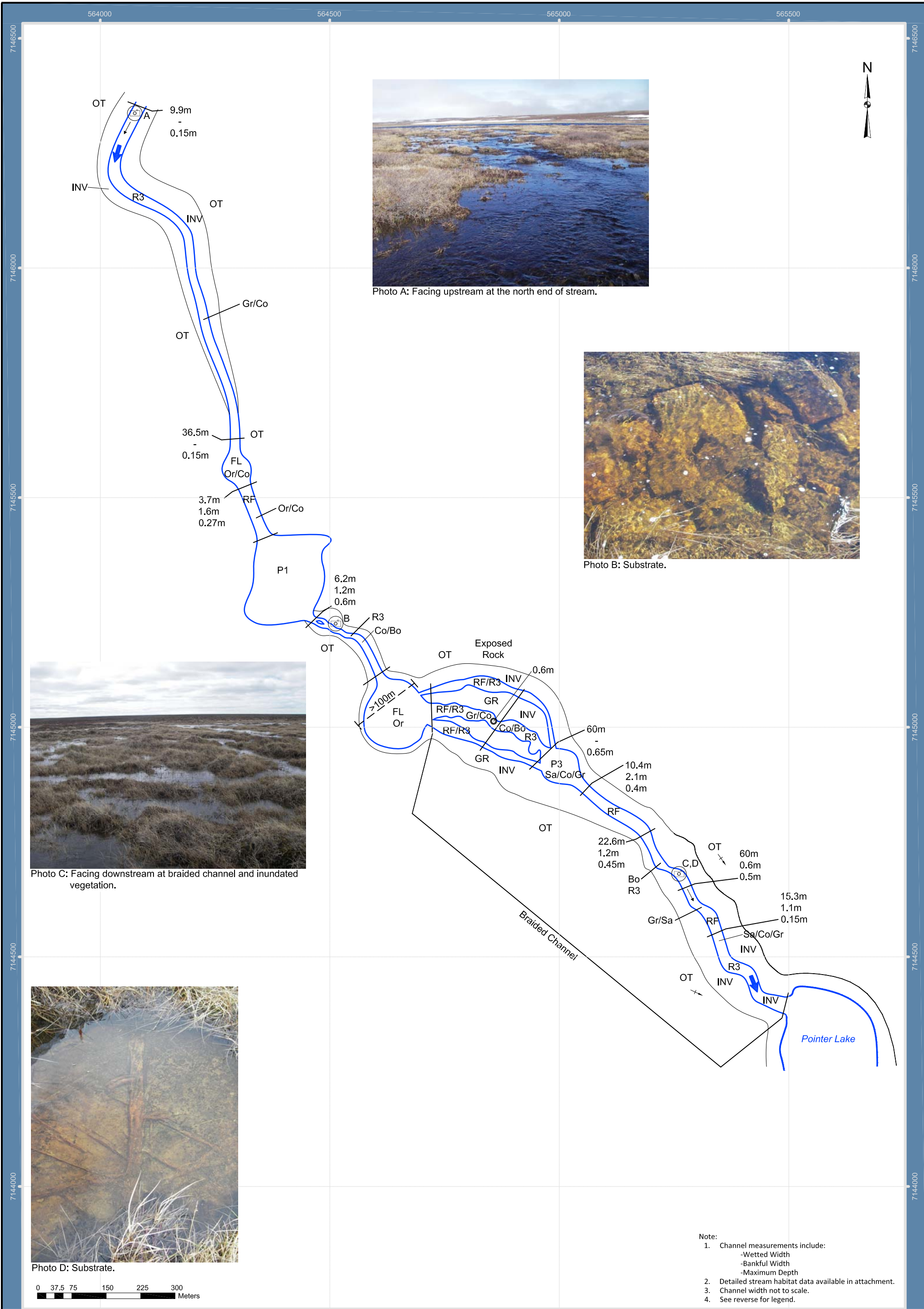
Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

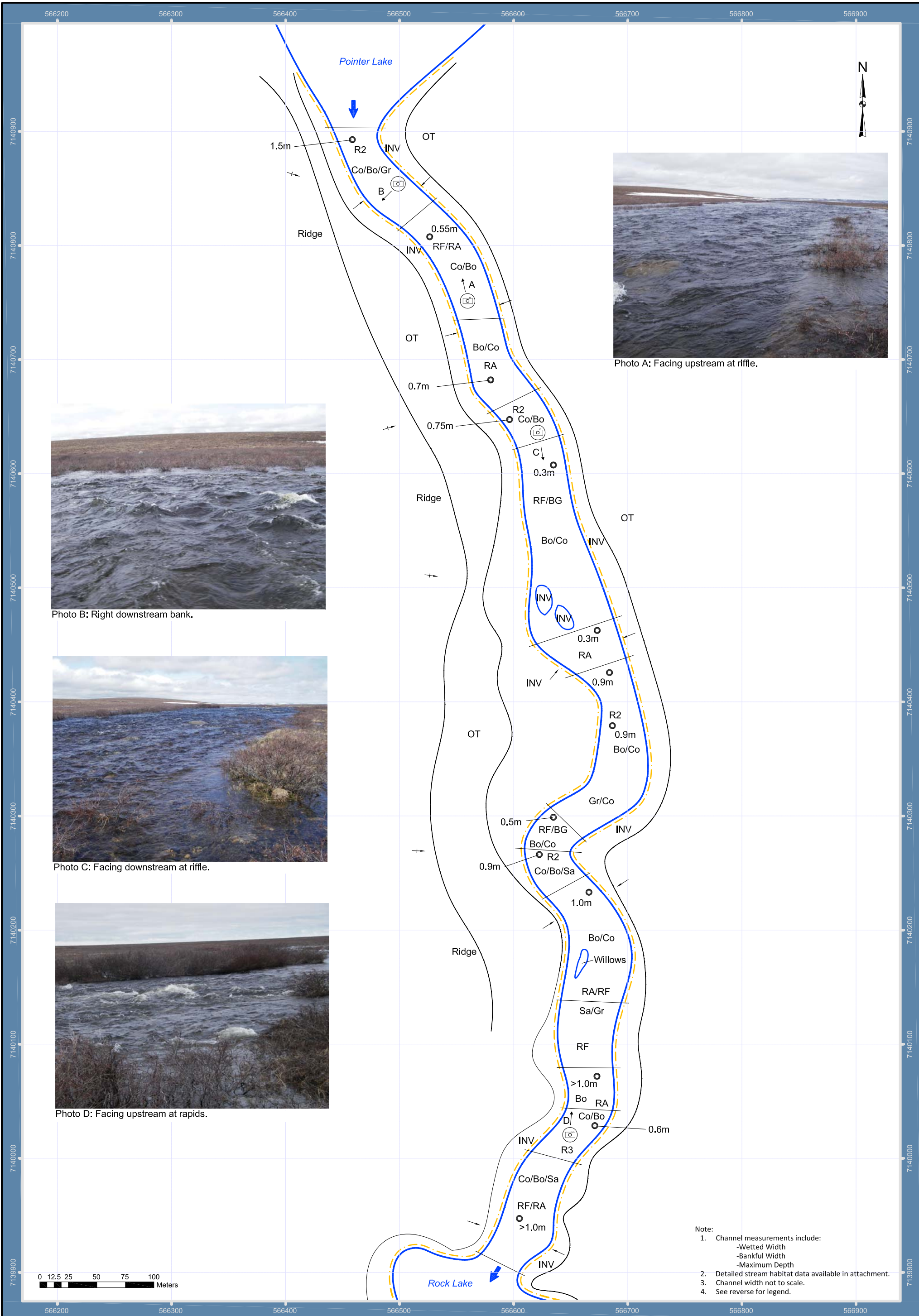
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Note:

1. Channel measurements include:
 - Wetted Width
 - Bankful Width
 - Maximum Depth
2. Detailed stream habitat data available in attachment.
3. Channel width not to scale.
4. See reverse for legend.

Projection: NAD 1983 UTM Zone 14N
Creator: TAH
Date: 04/02/11
File: KI08C095
Data Sources: NTS Mapsheet 66A/5

FIGURE X.VIII-35
HABITAT MAP
POINTER/ROCK STREAM
KIGGAVER PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3K5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres

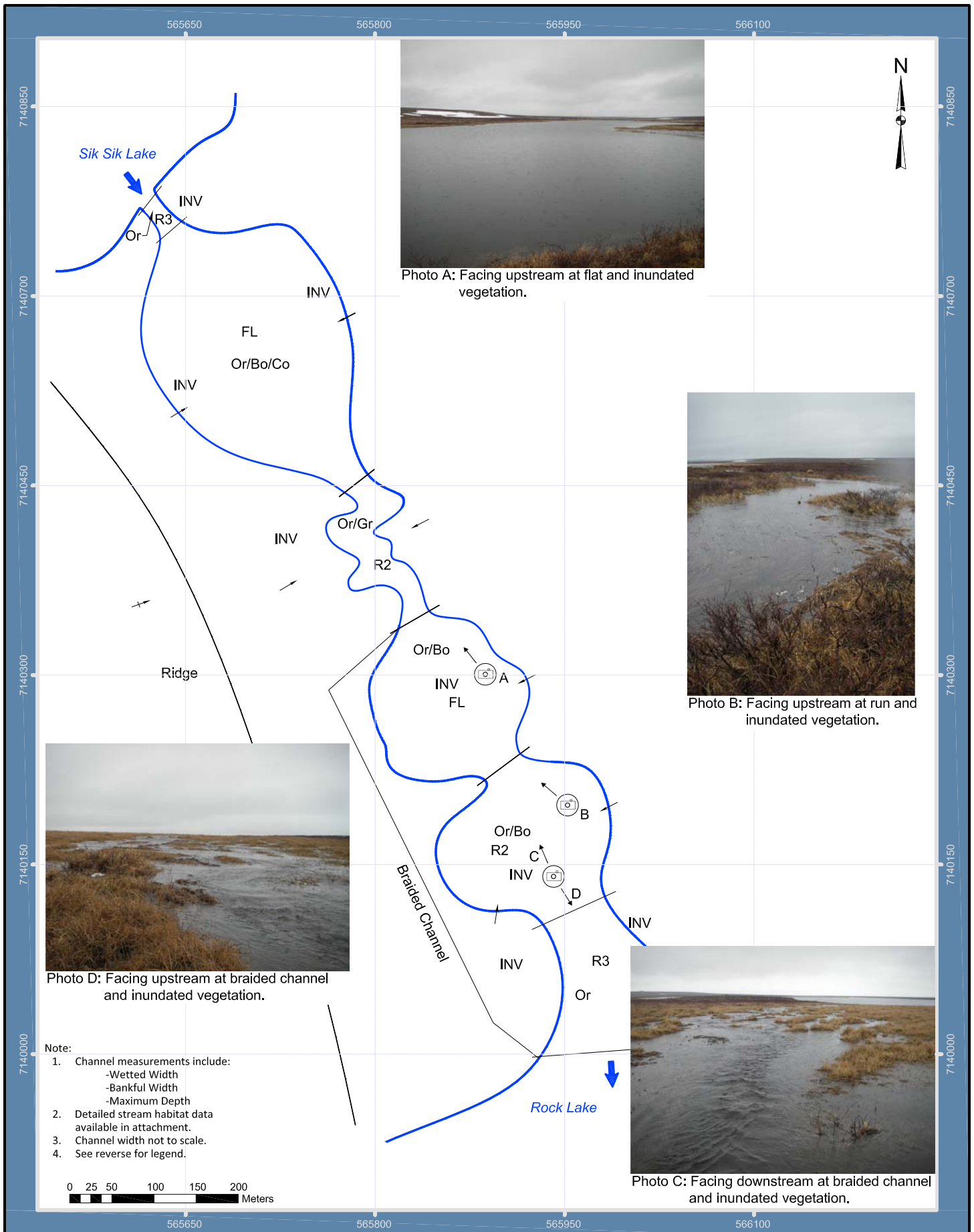


FIGURE X.VIII-36
HABITAT MAP SIK SIK/ROCK STREAM

KIGGAVERK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

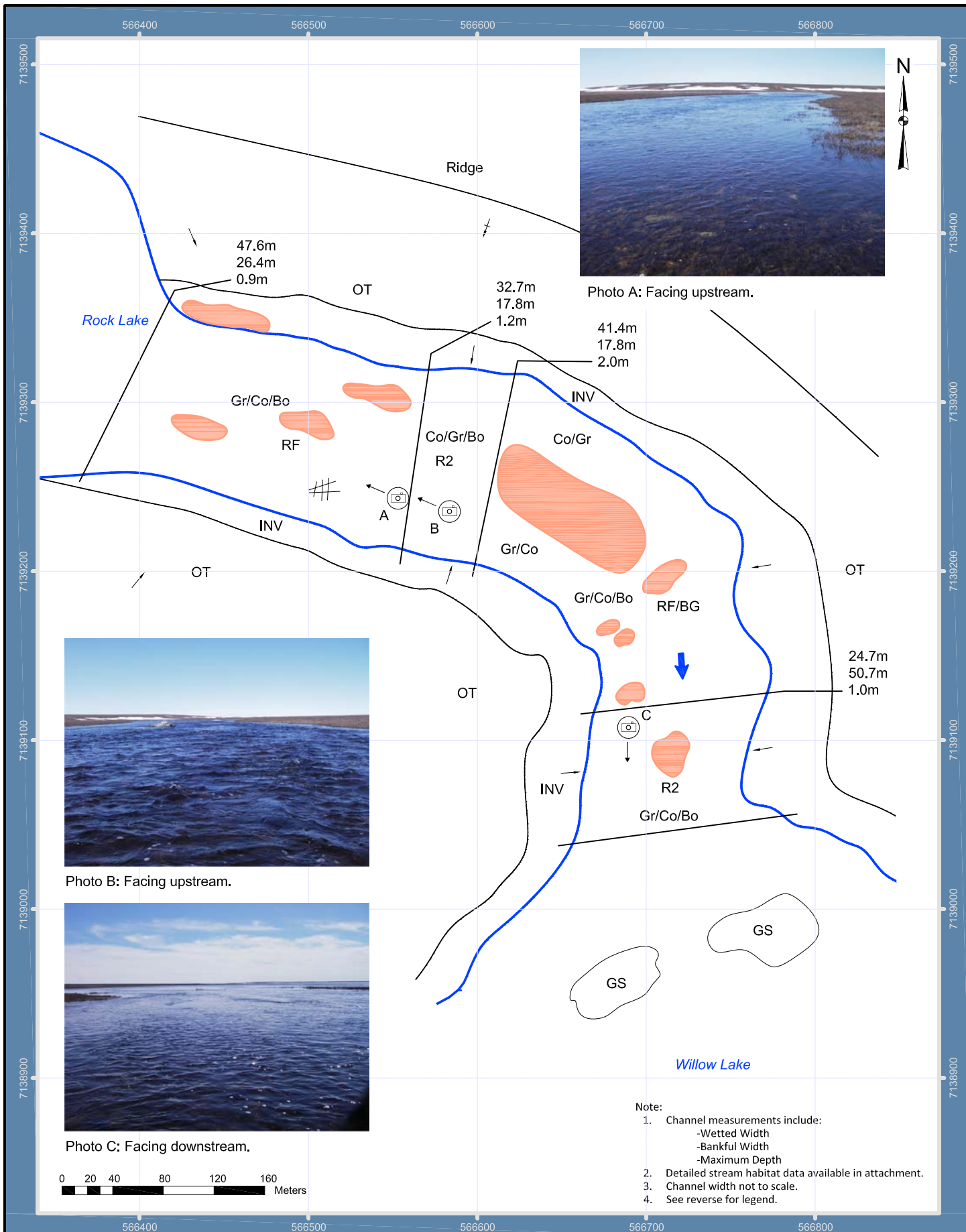
Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
		RF/BG	Riffle/Boulder Garden
Slow Water	Non-Turb.	R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
		FL	Flat
	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
Other Features	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
 Average Wetted Width (m)
 Average Bankful Width (m)
 Average Depth (m)
 Habitat Classification
 Substrate Type
 Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C024
 Data Sources: NTS MAPSHEET 66A/5

Scale: 1:4,000

FIGURE X.VIII-37
 HABITAT MAP
 ROCK/WILLOW STREAM
 KIGGAIVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

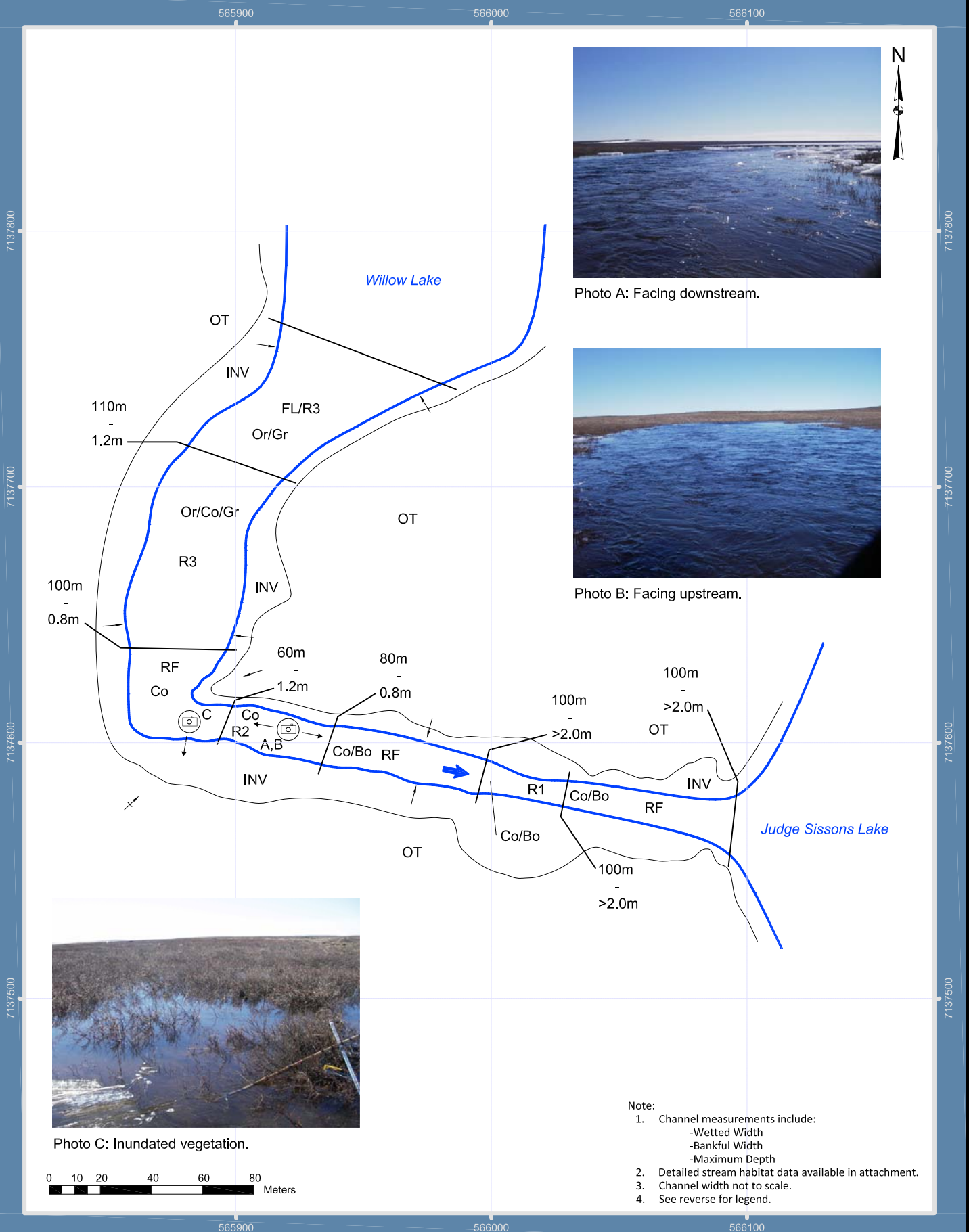
Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
		RF/BG	Riffle/Boulder Garden
	Non-Turb.	R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
R3		Run Class 3	
FL		Flat	
Slow Water	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
Other Features		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
 Average Wetted Width (m)
 Average Bankful Width (m)
 Average Depth (m)
 Habitat Classification
 Substrate Type
 Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C025
 Data Sources: NTS Mapsheet 66A/5

Scale: 1:2,000

FIGURE X.VIII-38
 HABITAT MAP
 WILLOW/JUDGE SISSONS STREAM
 KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullyng

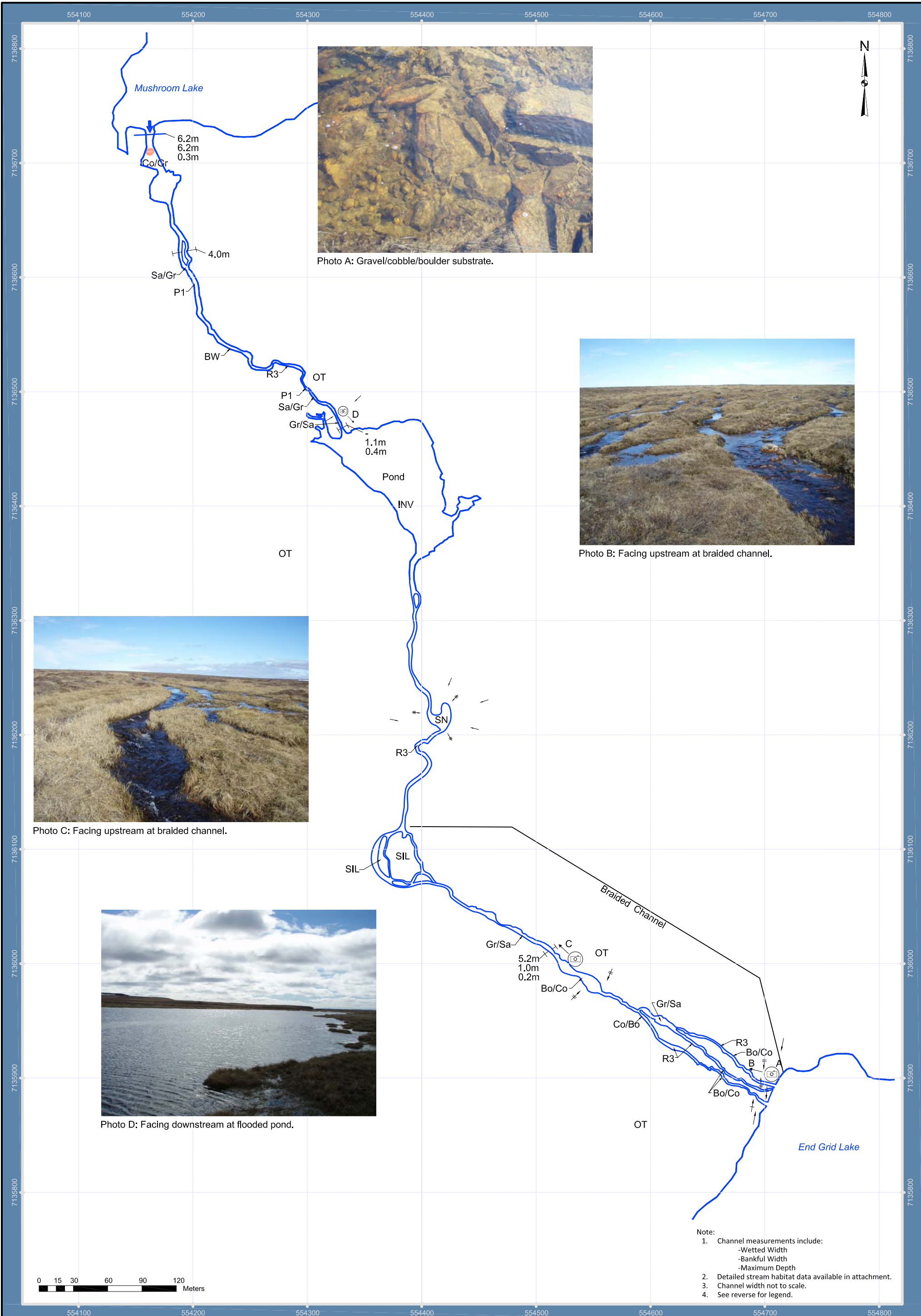
Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
		RF/BG	Riffle/Boulder Garden
Slow Water	Non-Turb.	R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
		FL	Flat
	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
Other Features	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
 Average Wetted Width (m)
 Average Bankful Width (m)
 Average Depth (m)
 Habitat Classification
 Substrate Type
 Fish Species

Notes:
m = metres



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
🔗	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Note:

1. Channel measurements include:
 - Wetted Width
 - Bankful Width
 - Maximum Depth
2. Detailed stream habitat data available in attachment.
3. Channel width not to scale.
4. See reverse for legend.

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres

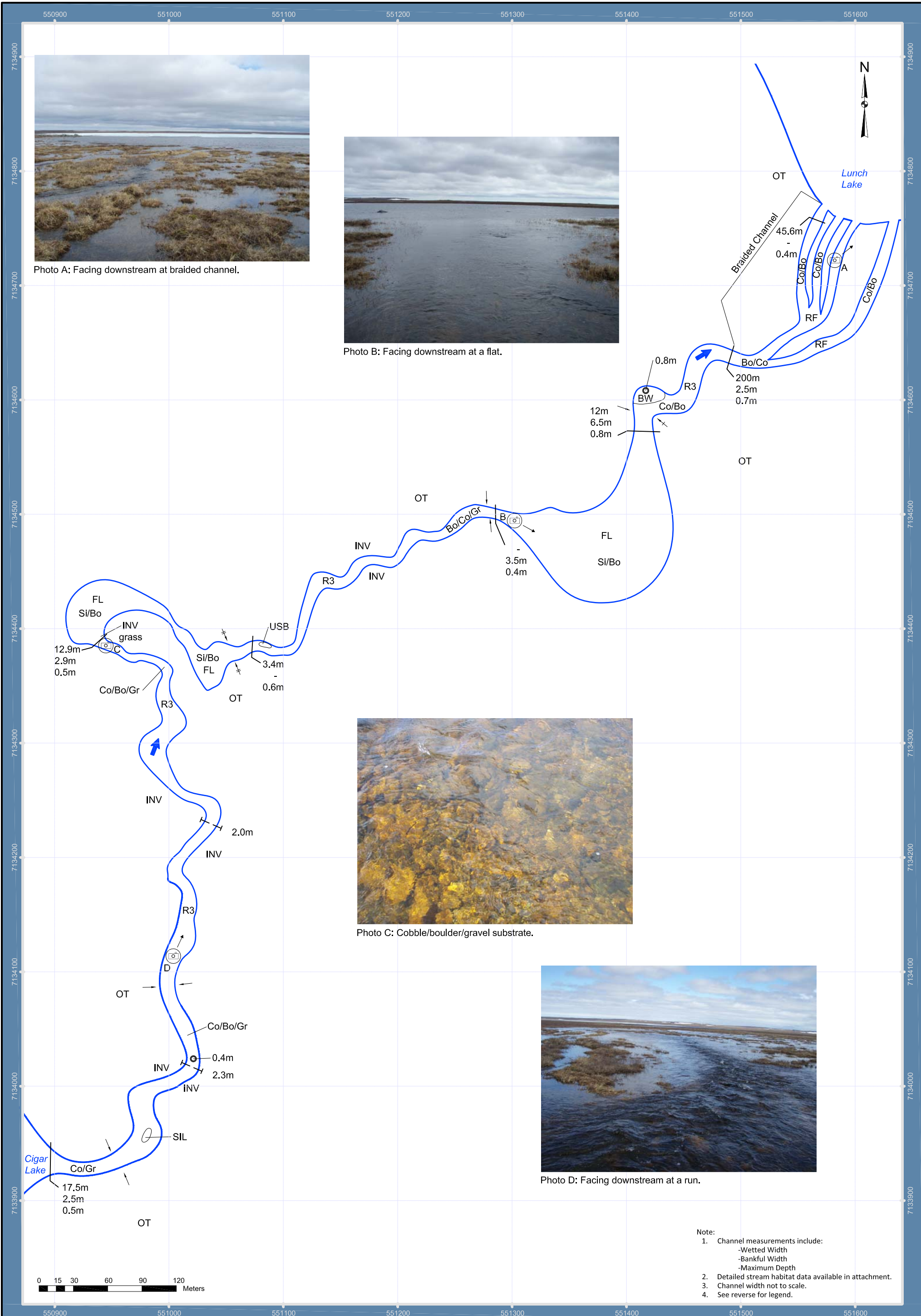


Photo A: Facing downstream at braided channel.

Photo B: Facing downstream at a flat.

Photo C: Cobble/boulder/gravel substrate.

Photo D: Facing downstream at a run.

- Note:
1. Channel measurements include:
 - Wetted Width
 - Bankful Width
 - Maximum Depth
 2. Detailed stream habitat data available in attachment.
 3. Channel width not to scale.
 4. See reverse for legend.

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
##	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
##	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
##	SWD Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
🔗	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Photo A: Facing downstream at run.

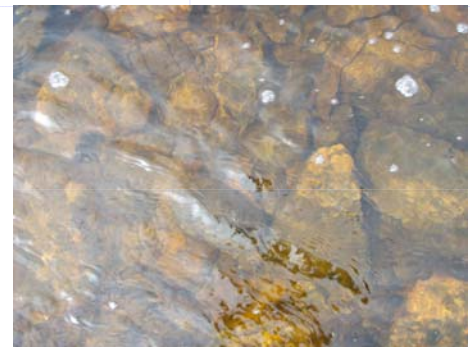
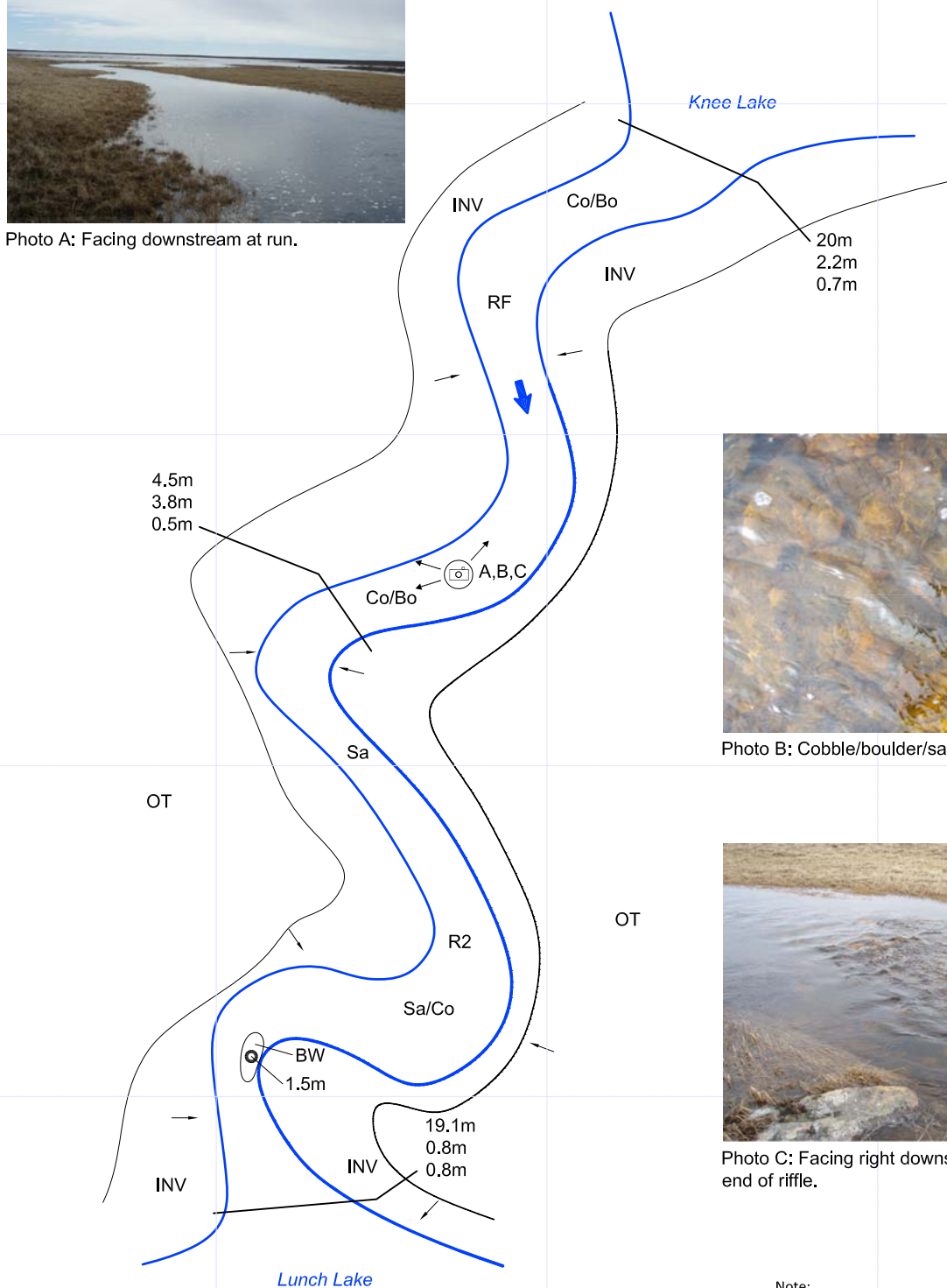


Photo B: Cobble/boulder/sand substrate.



Photo C: Facing right downstream bank near end of riffle.

Note:

1. Channel measurements include:
 - Wetted Width
 - Bankful Width
 - Maximum Depth
2. Detailed stream habitat data available in attachment.
3. Channel width not to scale.
4. See reverse for legend.

Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C027
 Data Sources: NTS Mapsheet 66A/5

Scale: 1:1,000

FIGURE X.VIII-42

HABITAT MAP
 KNEE/LUNCH STREAM

KIGGAVERK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

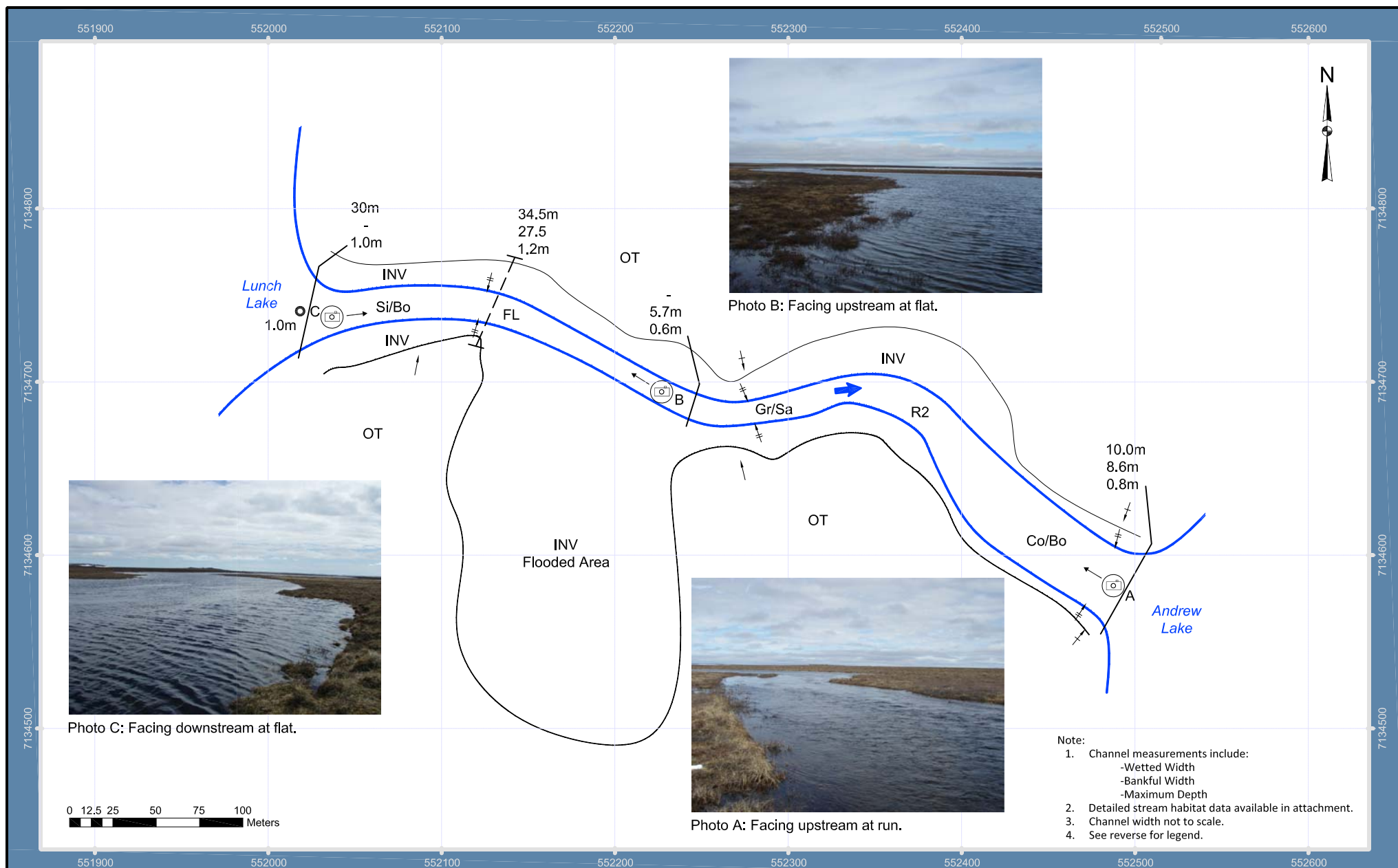
Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
		FL	Flat
Slow Water	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
Other Features		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
 Average Wetted Width (m)
 Average Bankful Width (m)
 Average Depth (m)
 Habitat Classification
 Substrate Type
 Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N

Creator: TAH/SIB

Date: 04/02/11

File: K108C028

Data Sources: NTS Mapsheet 66A/5

Scale: 1:3,000

FIGURE X.VIII-43

HABITAT MAP
LUNCH/ANDREW STREAM

KIGGAVIK PROJECT - EIS

Note:

1. Channel measurements include:
 - Wetted Width
 - Bankful Width
 - Maximum Depth
2. Detailed stream habitat data available in attachment.
3. Channel width not to scale.
4. See reverse for legend.



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullyng

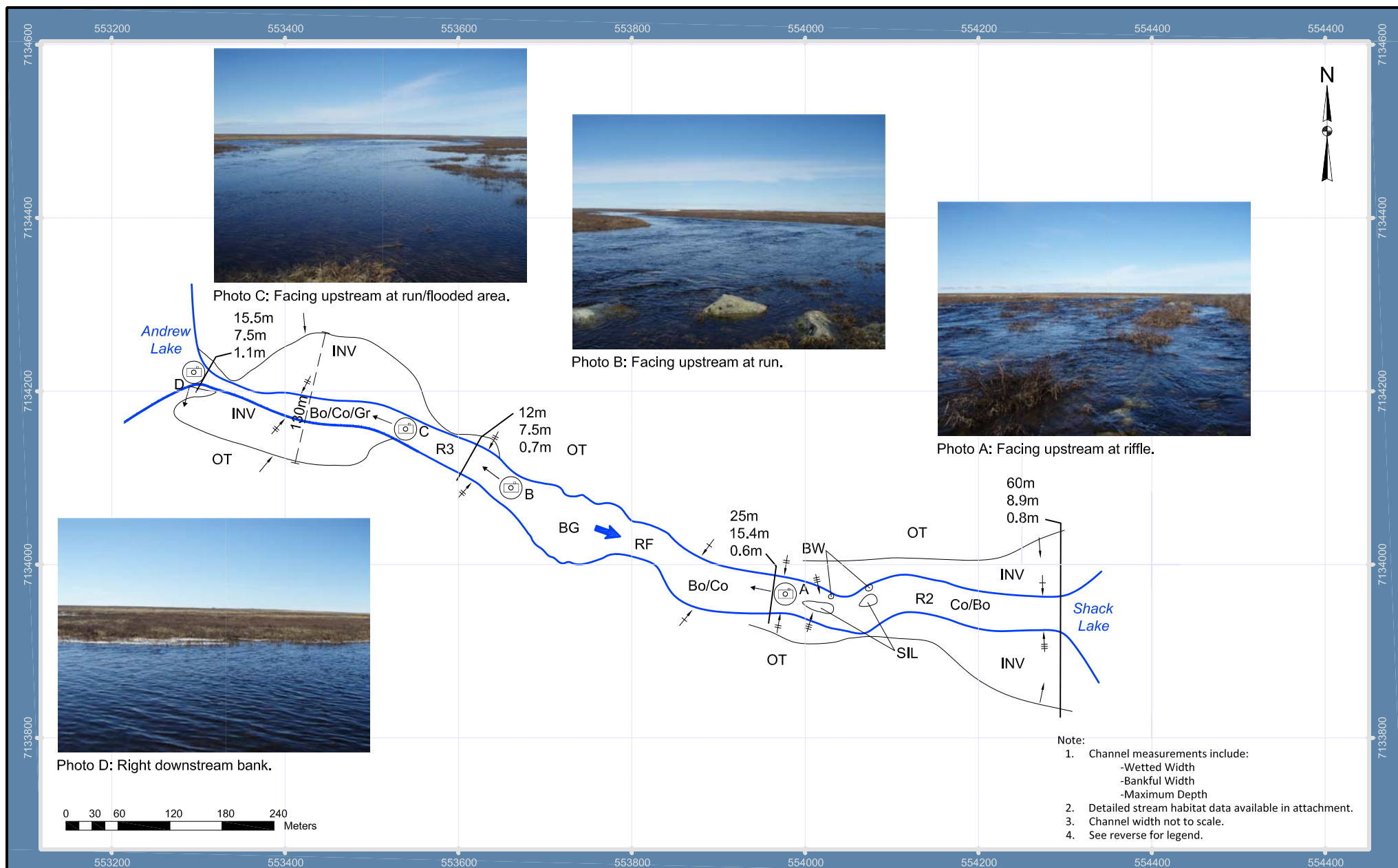
Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
		RF/BG	Riffle/Boulder Garden
	Non-Turb.	R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
R3		Run Class 3	
FL		Flat	
Slow Water	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
Other Features		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
 Average Wetted Width (m)
 Average Bankful Width (m)
 Average Depth (m)
 Habitat Classification
 Substrate Type
 Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N

Creator: TAH/SIB

Date: 04/02/11

File: K108C029

Data Sources: Mapsheet 66A/5

Scale: 1:6,000

FIGURE X.VIII-44

HABITAT MAP
ANDREW/SHACK STREAM

KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

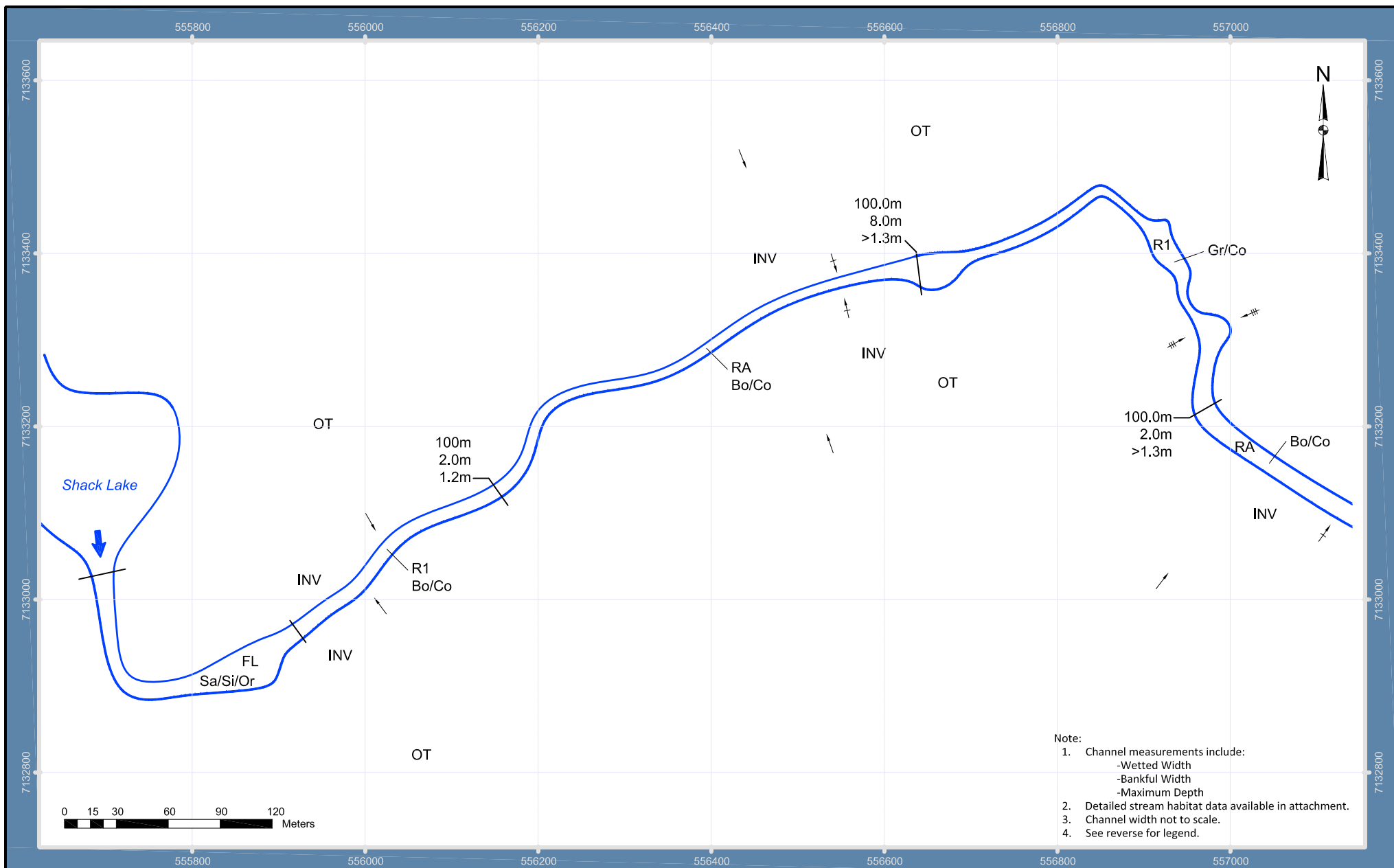
Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
		RF/BG	Riffle/Boulder Garden
	Non-Turb.	R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
R3		Run Class 3	
FL		Flat	
Slow Water	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
Other Features		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
 Average Wetted Width (m)
 Average Bankful Width (m)
 Average Depth (m)
 Habitat Classification
 Substrate Type
 Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N

Creator: TAH/SIB

Date: 04/02/11

File: KIO8C032

Data Sources: Mapsheet 66A/5

Scale: 1:6,000

FIGURE X.VIII-45a

HABITAT MAP
UPPER END OF SHACK/LOWER STREAM

KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullyng

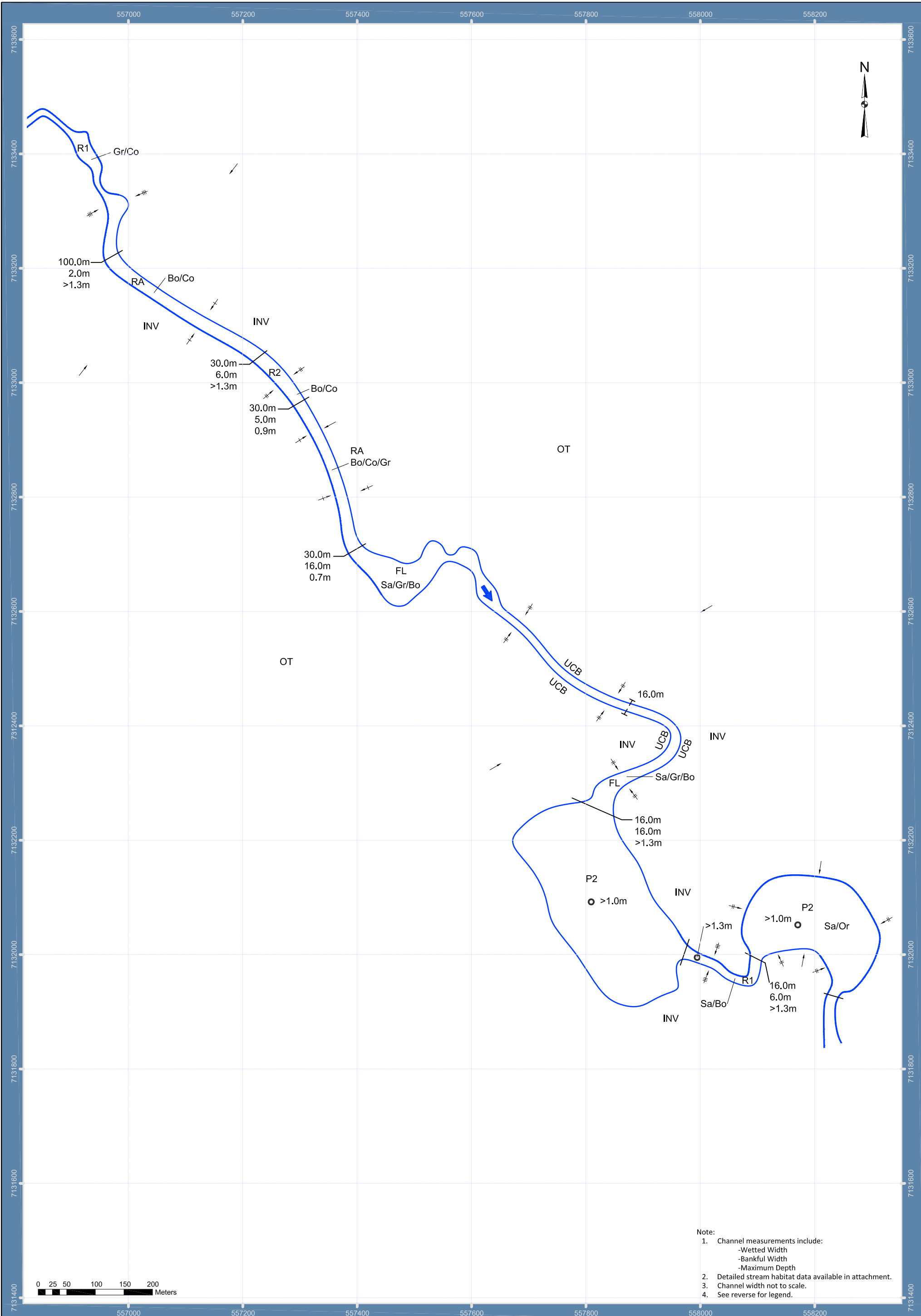
Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
		RF/BG	Riffle/Boulder Garden
Slow Water	Non-Turb.	R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
		FL	Flat
	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
Other Features	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
 Average Wetted Width (m)
 Average Bankful Width (m)
 Average Depth (m)
 Habitat Classification
 Substrate Type
 Fish Species

Notes:
m = metres



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres

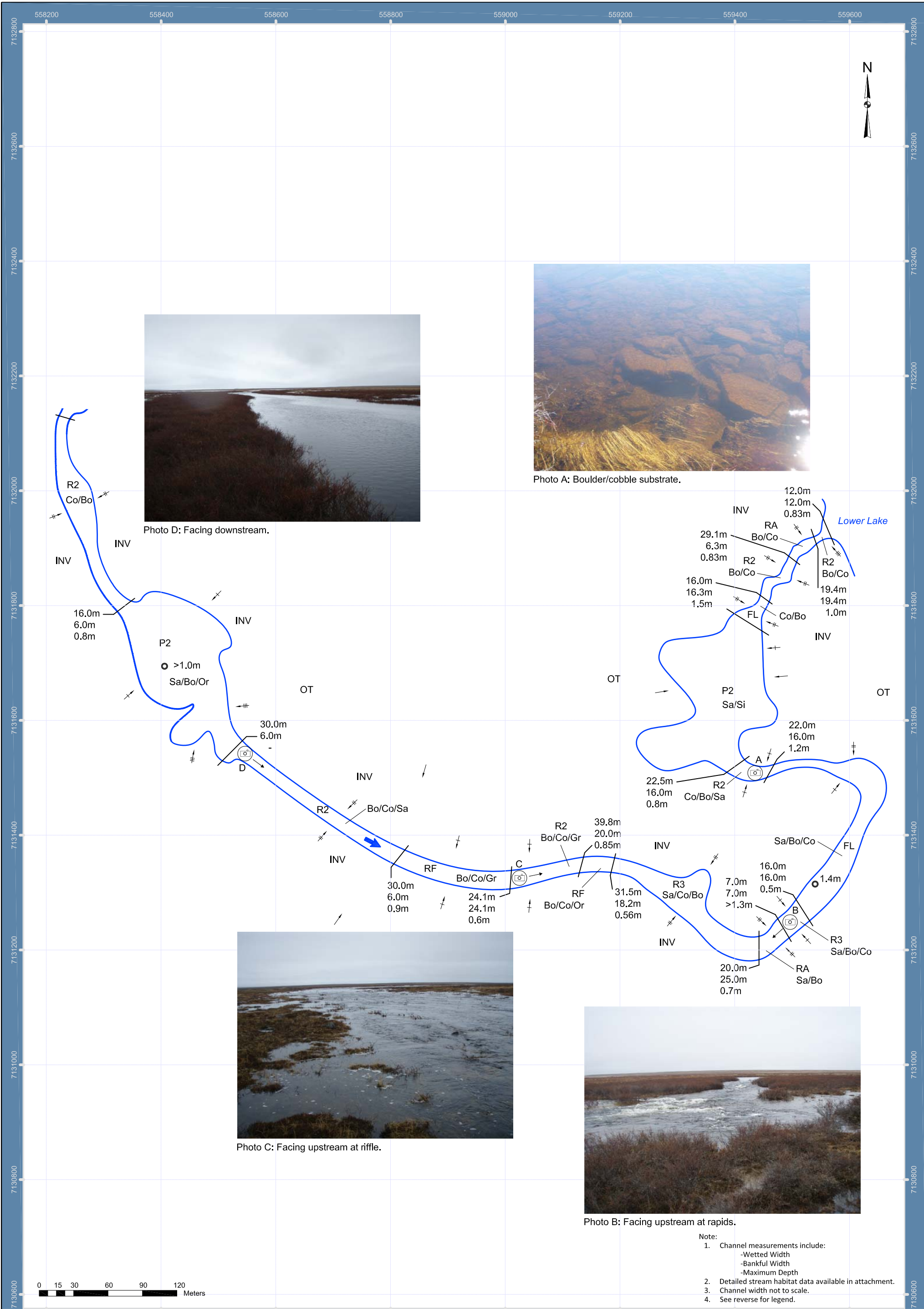


Photo A: Boulder/cobble substrate.

Photo D: Facing downstream.

Photo C: Facing upstream at riffle.

Photo B: Facing upstream at rapids.

- Note:
1. Channel measurements include:
 - Wetted Width
 - Bankful Width
 - Maximum Depth
 2. Detailed stream habitat data available in attachment.
 3. Channel width not to scale.
 4. See reverse for legend.

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
	EM Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
	IV Instream Vegetation
	INV Inundated Vegetation
#	LWD Large Woody Debris
	LE Ledge
	LJ Log Jam
	LS Landslide
	MLL Multiple Island
	OHV Overhanging Vegetation
	OHC Overhead Cover
	RW Root Wad
🟡	Sand Bar
	SIL Singular Island
#	SWD Small Woody Debris
	SM Submergent Vegetation
	UCB Undercut Bank
	USB Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
	Watercourse
⬇️	Width
⬇️	Depth

Bank/Upland Vegetation Types	
	BA Bare Ground
	OT Open Tundra
	MU Muskeg/Bog
	DF Deciduous Forest
	CF Coniferous Forest
	MW Mixedwood Forest
	GS Grassland
🟡	GF Grass/Forbs
🟡-🟢	GF/SH Grass/Forbs/Shrubs
🟢	SE Sedge
🟢-🟢	SH Shrubs
🟢-🟢	MO Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
🟢	BP Electrofishing - Backpack
🟡	EF Electrofishing - Boat
🔪	GN Gill Net
🟡	SN Seine
🔪	FF Fish Fence
🔪	MT Minnow Trap
🔪	AN Angling
🔪	HN/TN Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
	Impound (dammed pool)	P3	Pool Class 3
		IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
Other Features		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres

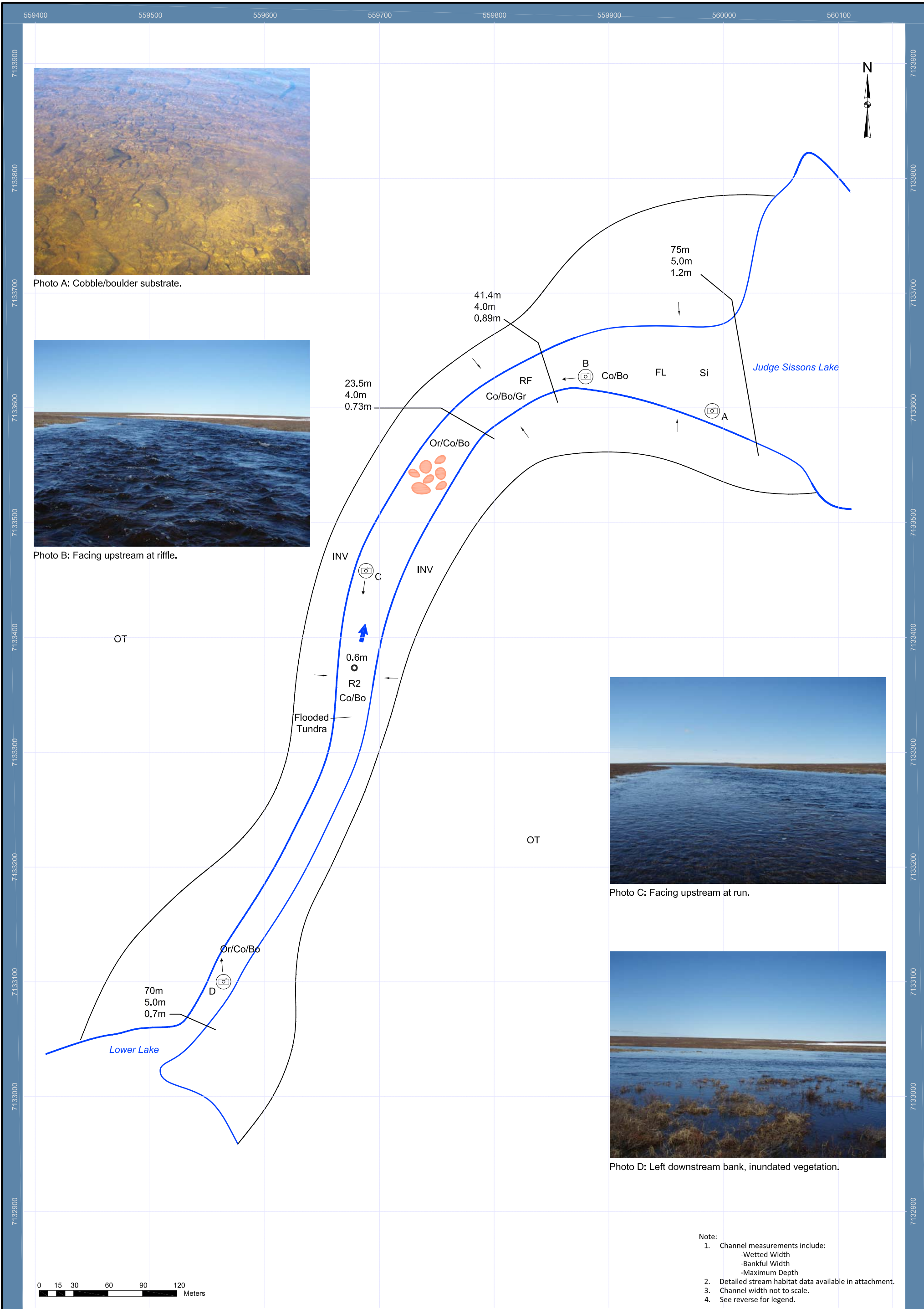


Photo A: Cobble/boulder substrate.

Photo B: Facing upstream at riffle.

Photo C: Facing upstream at run.

Photo D: Left downstream bank, inundated vegetation.

- Note:
1. Channel measurements include:
 - Wetted Width
 - Bankful Width
 - Maximum Depth
 2. Detailed stream habitat data available in attachment.
 3. Channel width not to scale.
 4. See reverse for legend.

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
##	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
##	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
+→	Intermediate Slope (6-30%)
##→	Steep Slope (31-70%)
##→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
⌚	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
🚶	Angling
🕸	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Photo A: Facing downstream at run and Fox Lake.

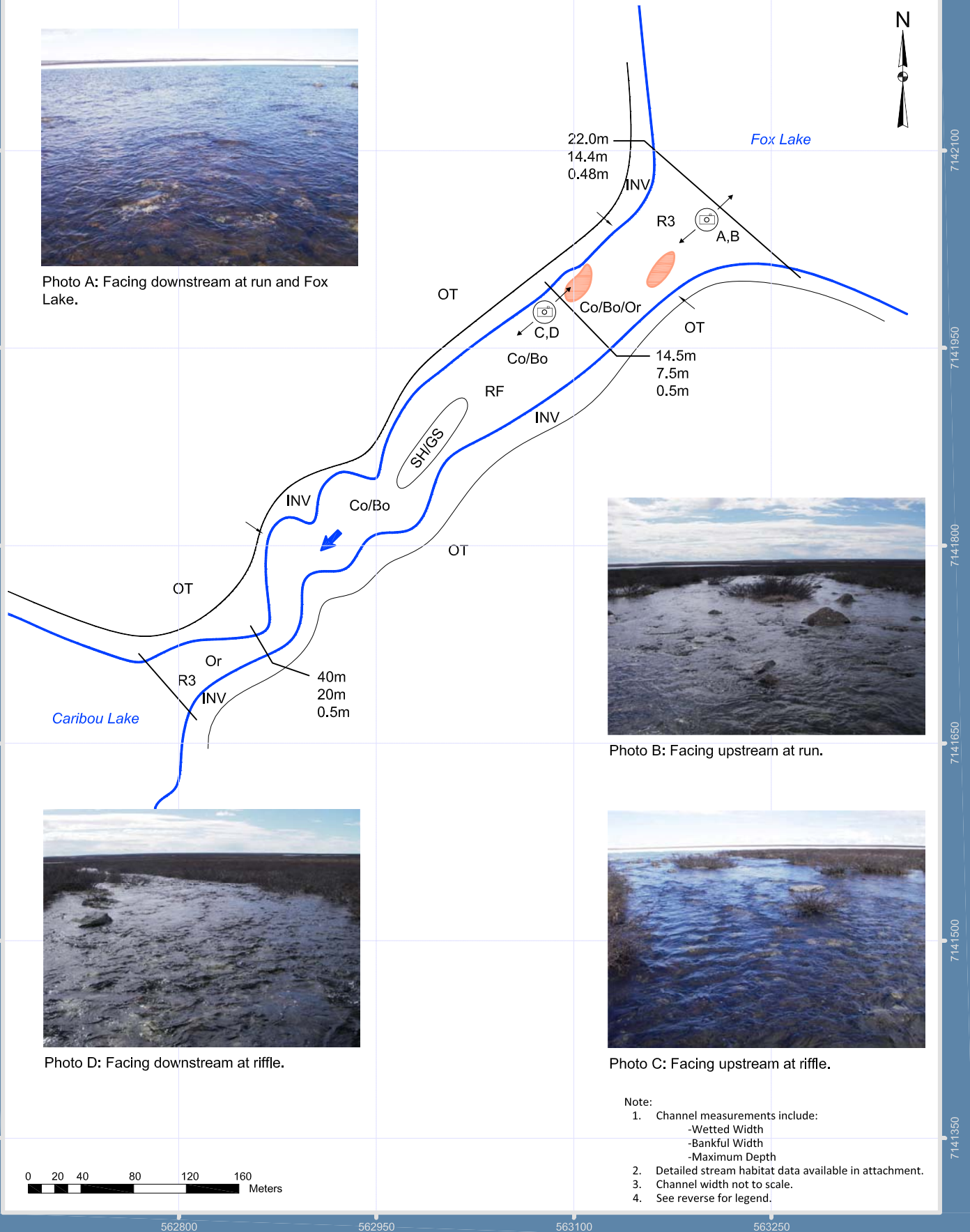


Photo B: Facing upstream at run.



Photo D: Facing downstream at riffle.



Photo C: Facing upstream at riffle.

Note:

1. Channel measurements include:
 - Wetted Width
 - Bankful Width
 - Maximum Depth
2. Detailed stream habitat data available in attachment.
3. Channel width not to scale.
4. See reverse for legend.

Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C036
 Data Sources: NTS MAPSHEET 66A/5

FIGURE X.VIII-47
 HABITAT MAP
 FOX/CARIBOU STREAM

KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

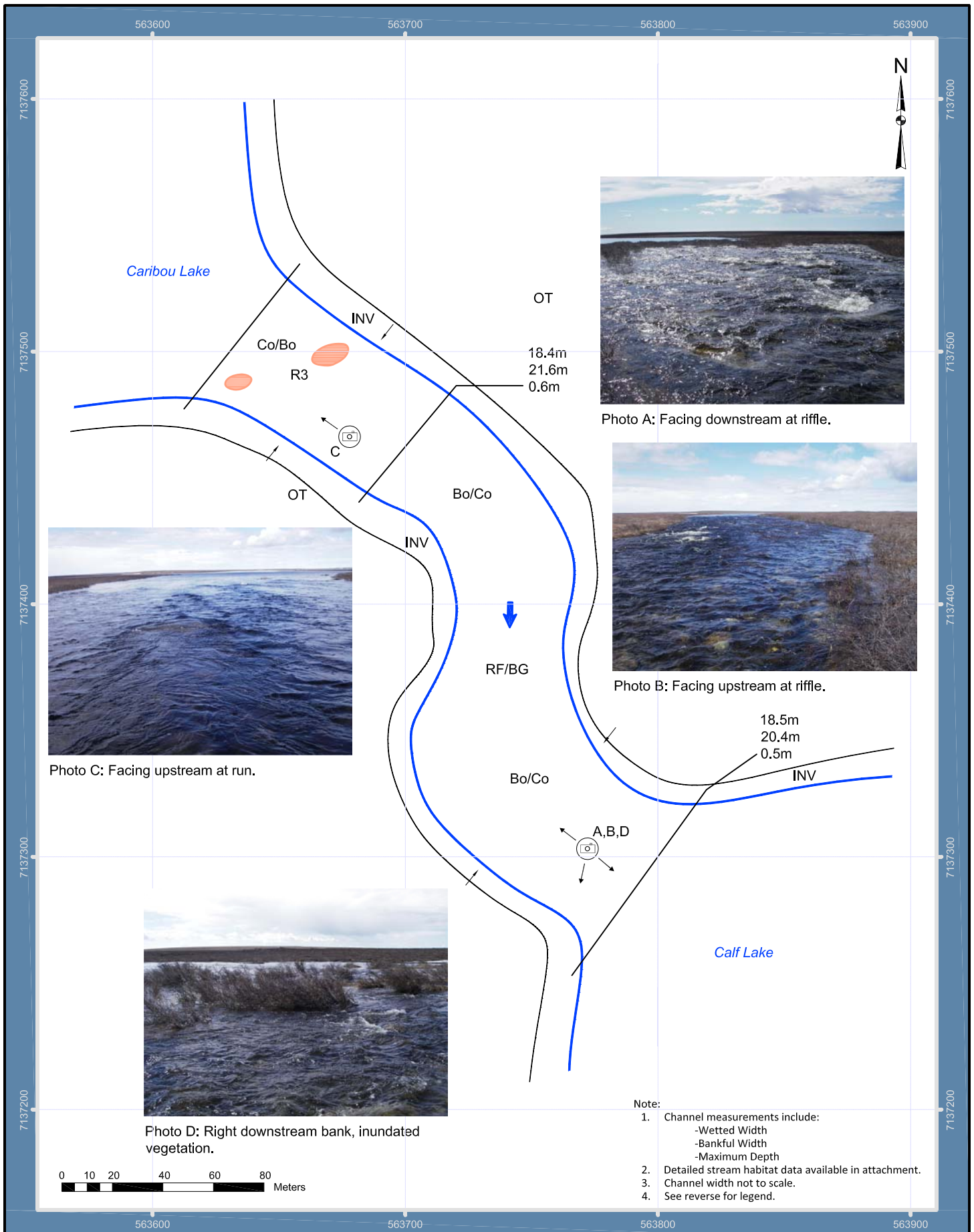
Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
		FL	Flat
Slow Water	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
Other Features		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
 Average Wetted Width (m)
 Average Bankful Width (m)
 Average Depth (m)
 Habitat Classification
 Substrate Type
 Fish Species

Notes:
m = metres



- Note:
- Channel measurements include:
 - Wetted Width
 - Bankful Width
 - Maximum Depth
 - Detailed stream habitat data available in attachment.
 - Channel width not to scale.
 - See reverse for legend.

Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C037
 Data Sources: NTS MAPSHEET 66A/5

FIGURE X.VIII-48
 HABITAT MAP
 CARIBOU/CALF STREAM
 KIGGAVERK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullyng

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
		FL	Flat
Slow Water	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
Other Features		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
 Average Wetted Width (m)
 Average Bankful Width (m)
 Average Depth (m)
 Habitat Classification
 Substrate Type
 Fish Species

Notes:
m = metres



Photo A: Facing upstream at run.



Photo B: Facing downstream at run.

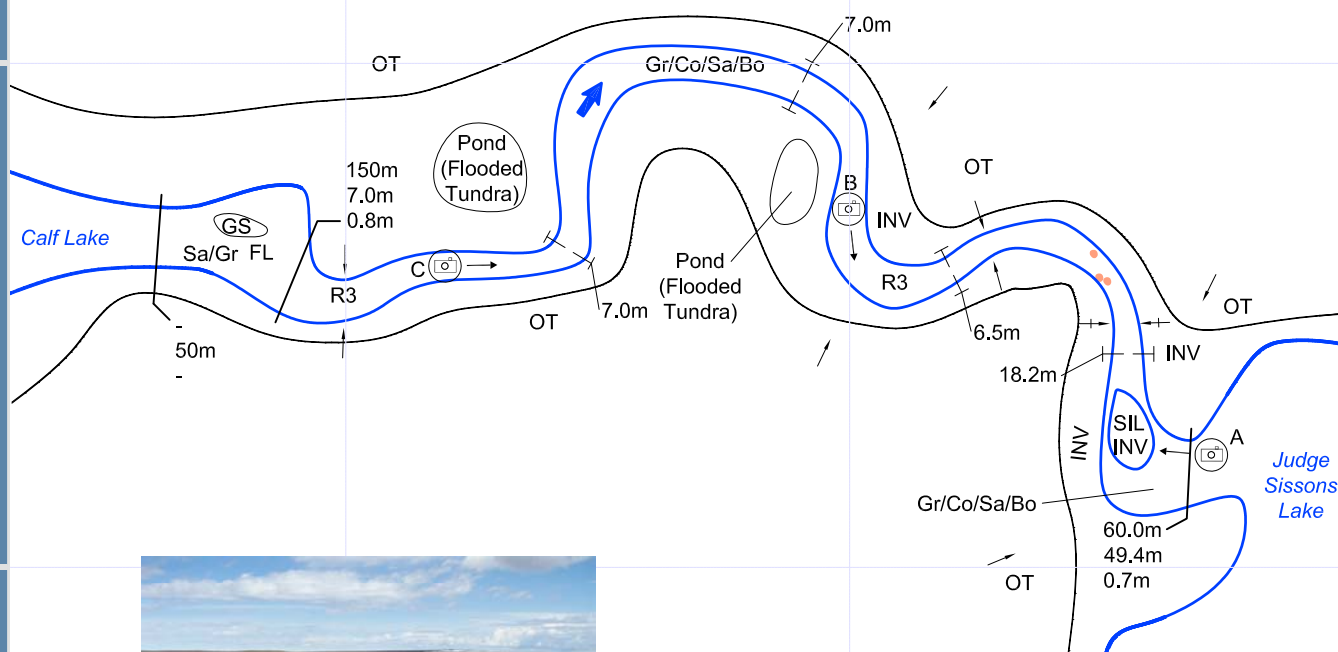


Photo C: Facing downstream at run.

Note:

1. Channel measurements include:
 - Wetted Width
 - Bankful Width
 - Maximum Depth
2. Detailed stream habitat data available in attachment.
3. Channel width not to scale.
4. See reverse for legend.

Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C038
 Data Sources: NTS MAPSHEET 66A/5

Scale: 1:7,500

FIGURE X.VIII-49
 HABITAT MAP
 CALF/JUDGE SISSONS STREAM
 KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullyng

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
		RF/BG	Riffle/Boulder Garden
Slow Water	Non-Turb.	R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
		FL	Flat
	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
Other Features	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
 Average Wetted Width (m)
 Average Bankful Width (m)
 Average Depth (m)
 Habitat Classification
 Substrate Type
 Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C074
Data Sources: Contours derived from LIDAR, June/July 2007
Orthophoto, June/July 2009

FIGURE X.VIII-50
HABITAT MAP KM 2.0
KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

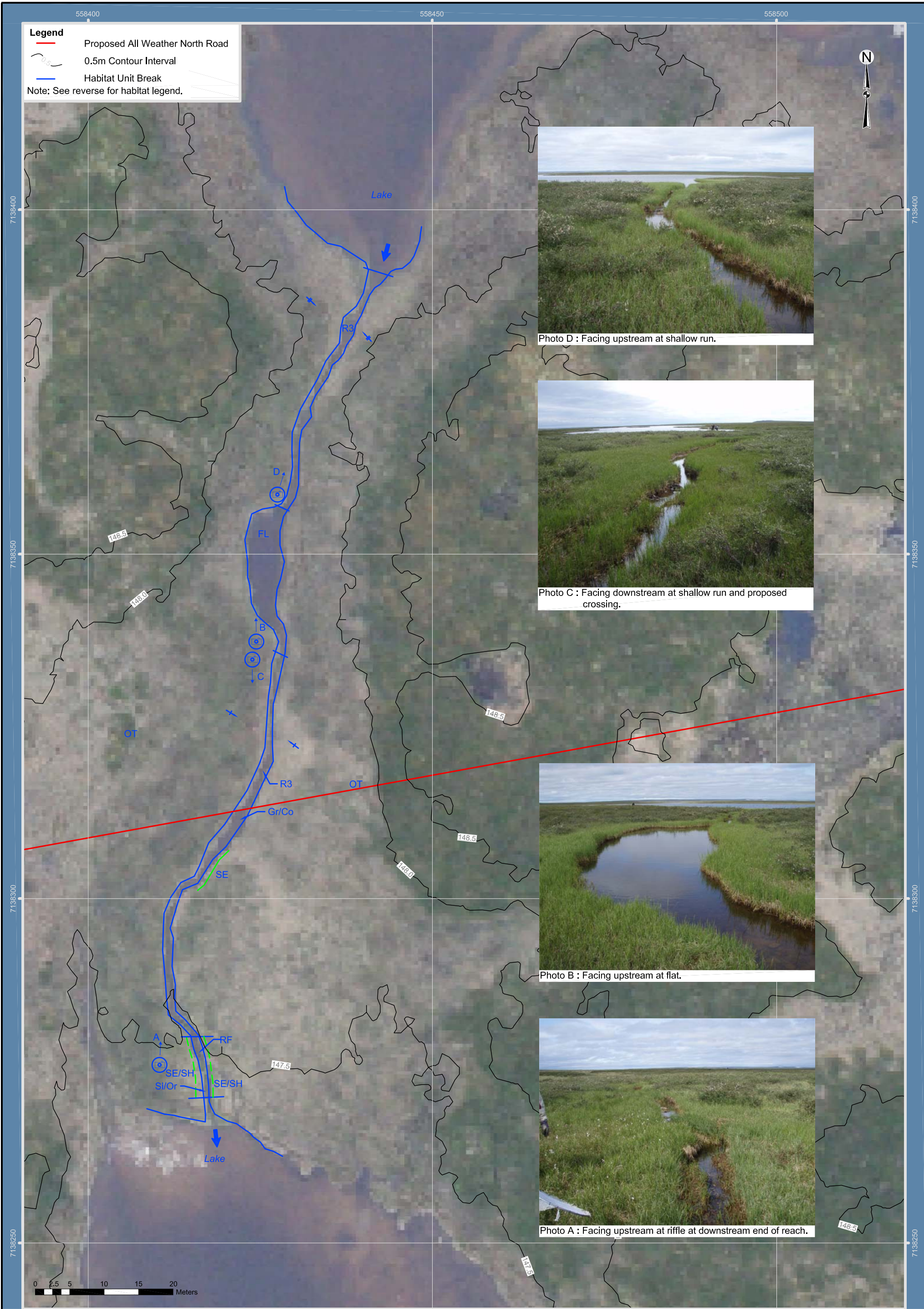
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C073
Data Sources: Contours derived from LIDAR, June/July 2007
Orthophoto, June/July 2009
Note: Due to narrowness of stream, the width has been enlarged for clarity.

FIGURE X.VIII-51
HABITAT MAP KM 6.7
KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟠	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

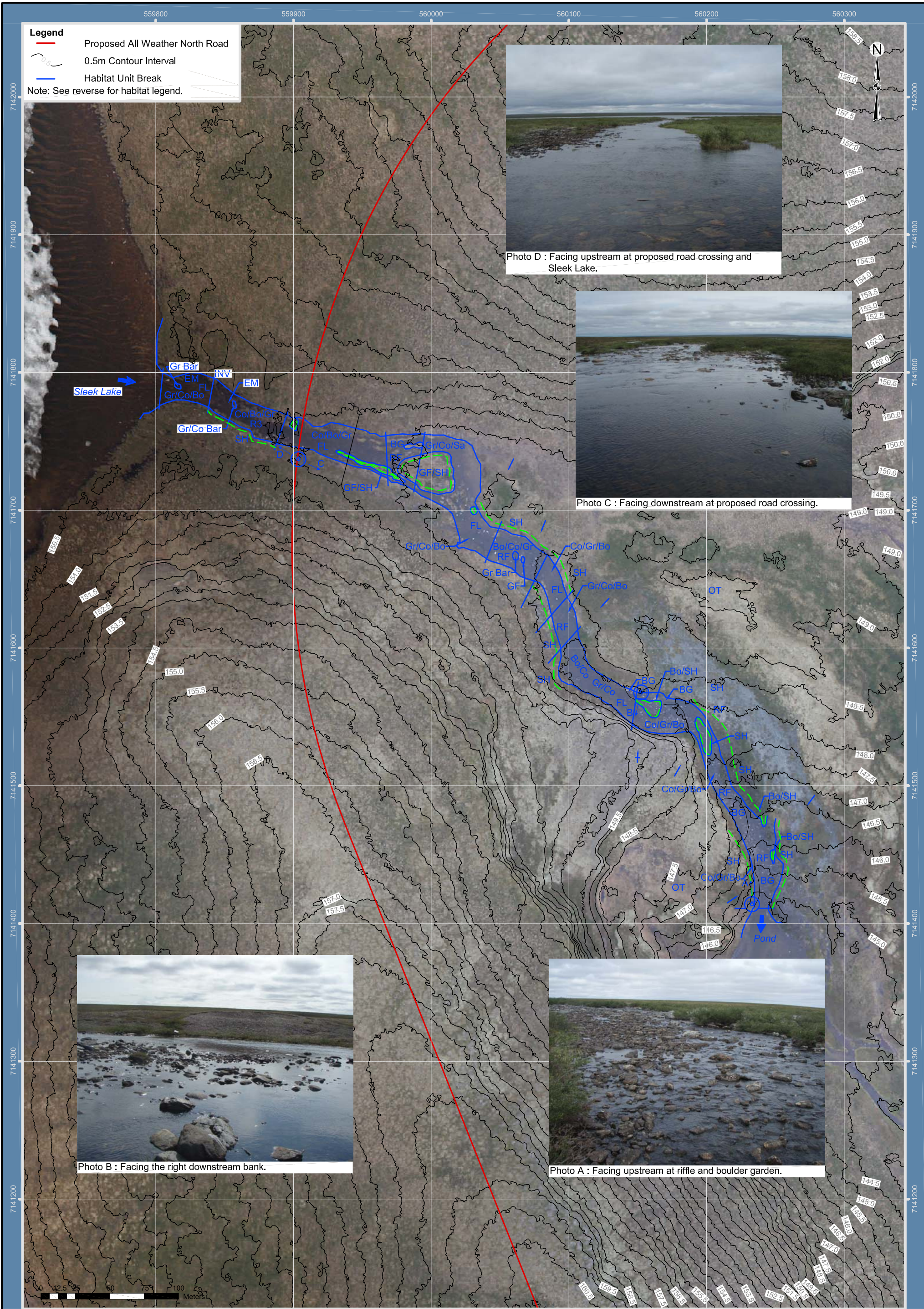
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C072
Data Sources: Contours derived from LIDAR, June/July 2007
Orthophoto, June/July 2009

FIGURE X.VIII-52
HABITAT MAP KM 11.3
KIGGAVIK PROJECT - EIS

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

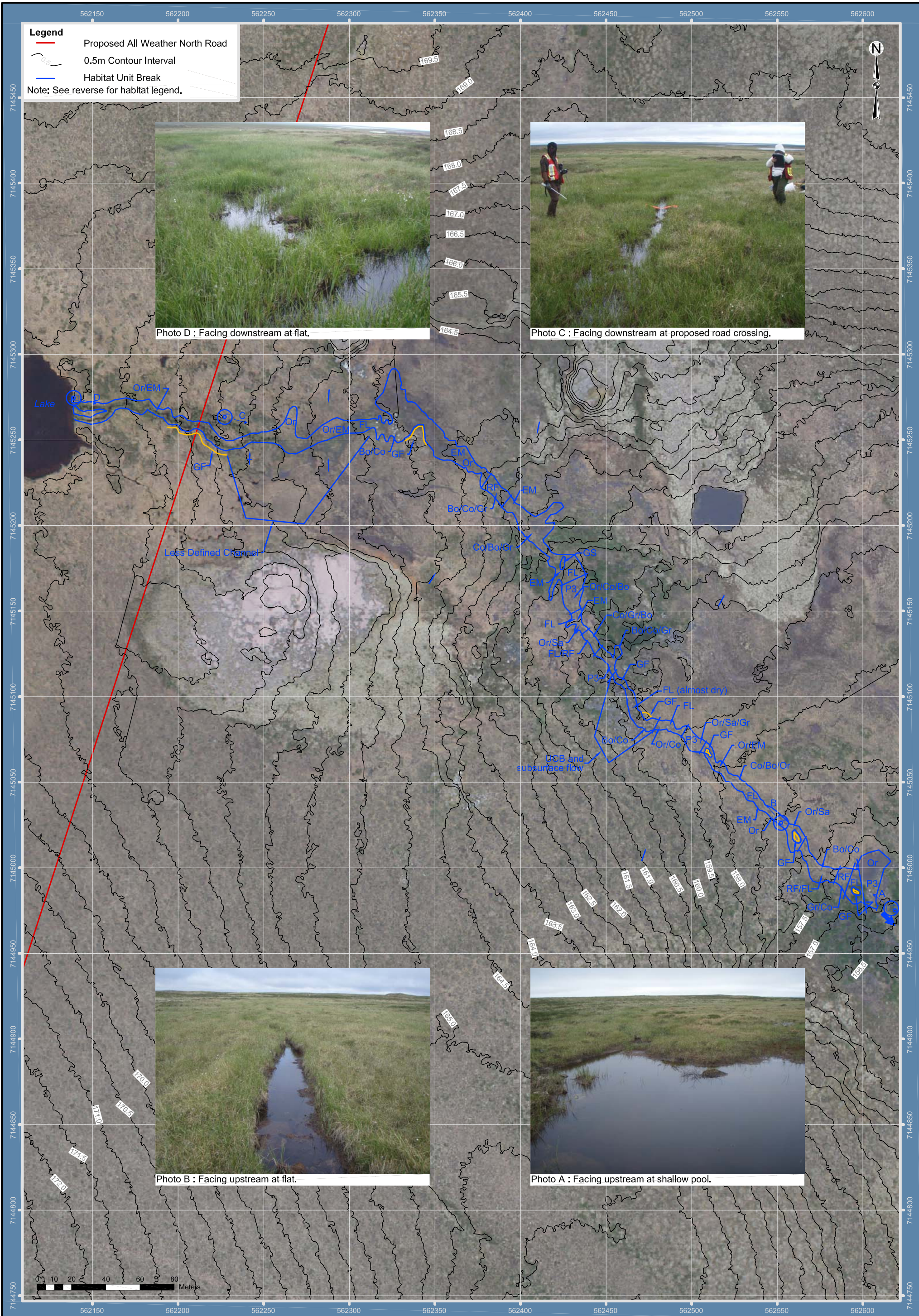
Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Legend

- Proposed All Weather North Road
- 0.5m Contour Interval
- Habitat Unit Break

Note: See reverse for habitat legend.

Photo D : Facing downstream at flat.

Photo C : Facing downstream at proposed road crossing.

Photo B : Facing upstream at flat.

Photo A : Facing upstream at shallow pool.

Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C071
Data Sources: Contours derived from LIDAR, June/July 2007
Orthophoto, June/July 2009
Note: Due to narrowness of stream, the width has been enlarged for clarity.

FIGURE X.VIII-53
HABITAT MAP KM 15.6
KIGGAVIK PROJECT - EIS

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

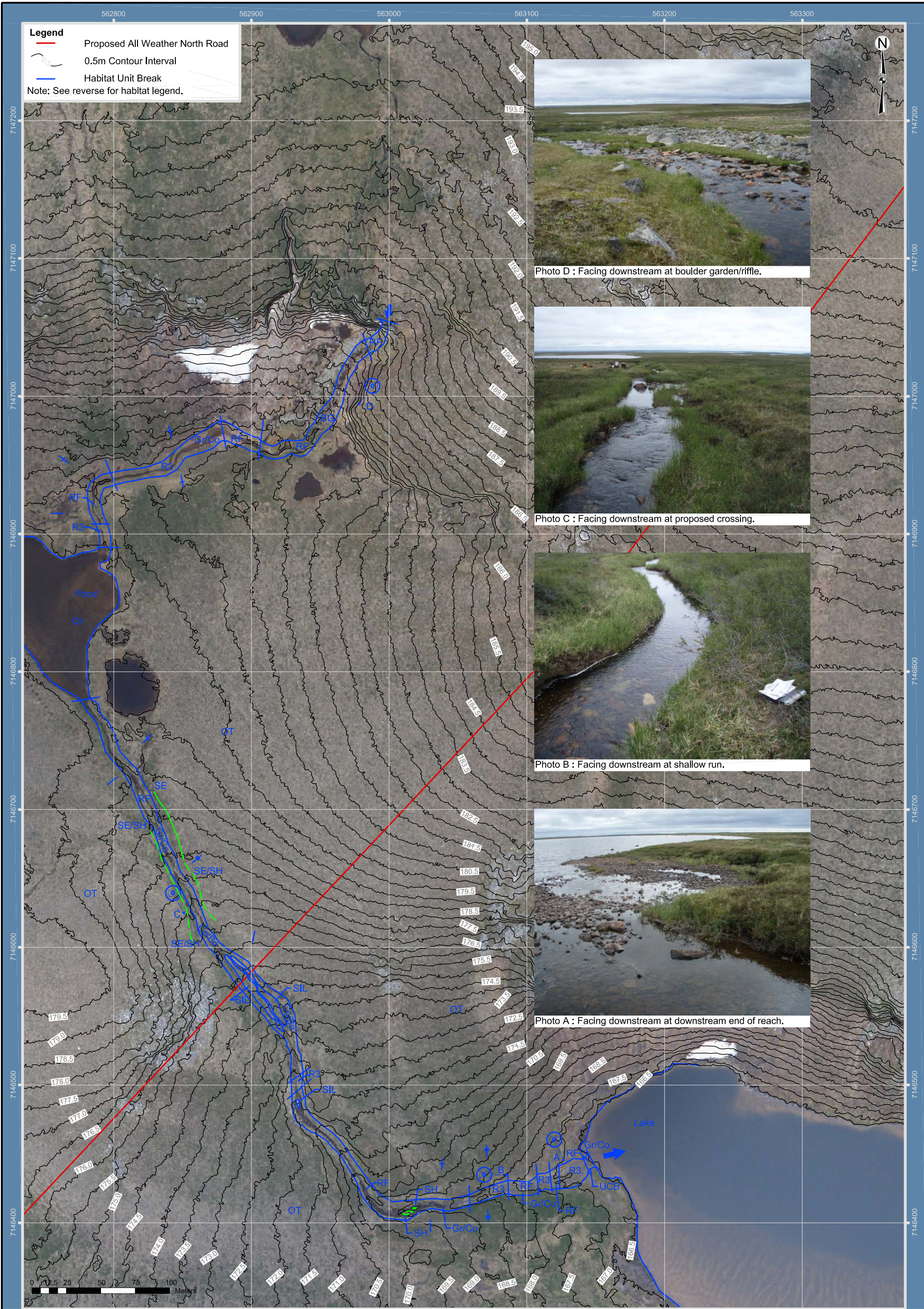
Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Legend

- Proposed All Weather North Road
- 0.5m Contour Interval
- Habitat Unit Break

Note: See reverse for habitat legend.

Photo D : Facing downstream at boulder garden/riffle.

Photo C : Facing downstream at proposed crossing.

Photo B : Facing downstream at shallow run.

Photo A : Facing downstream at downstream end of reach.

Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C070
Data Sources: Contours derived from LIDAR, June/July 2007
Orthophoto, June/July 2009
Note: Due to narrowness of stream, the width has been enlarged for clarity.

FIGURE X.VIII-54
HABITAT MAP KM 17.2

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

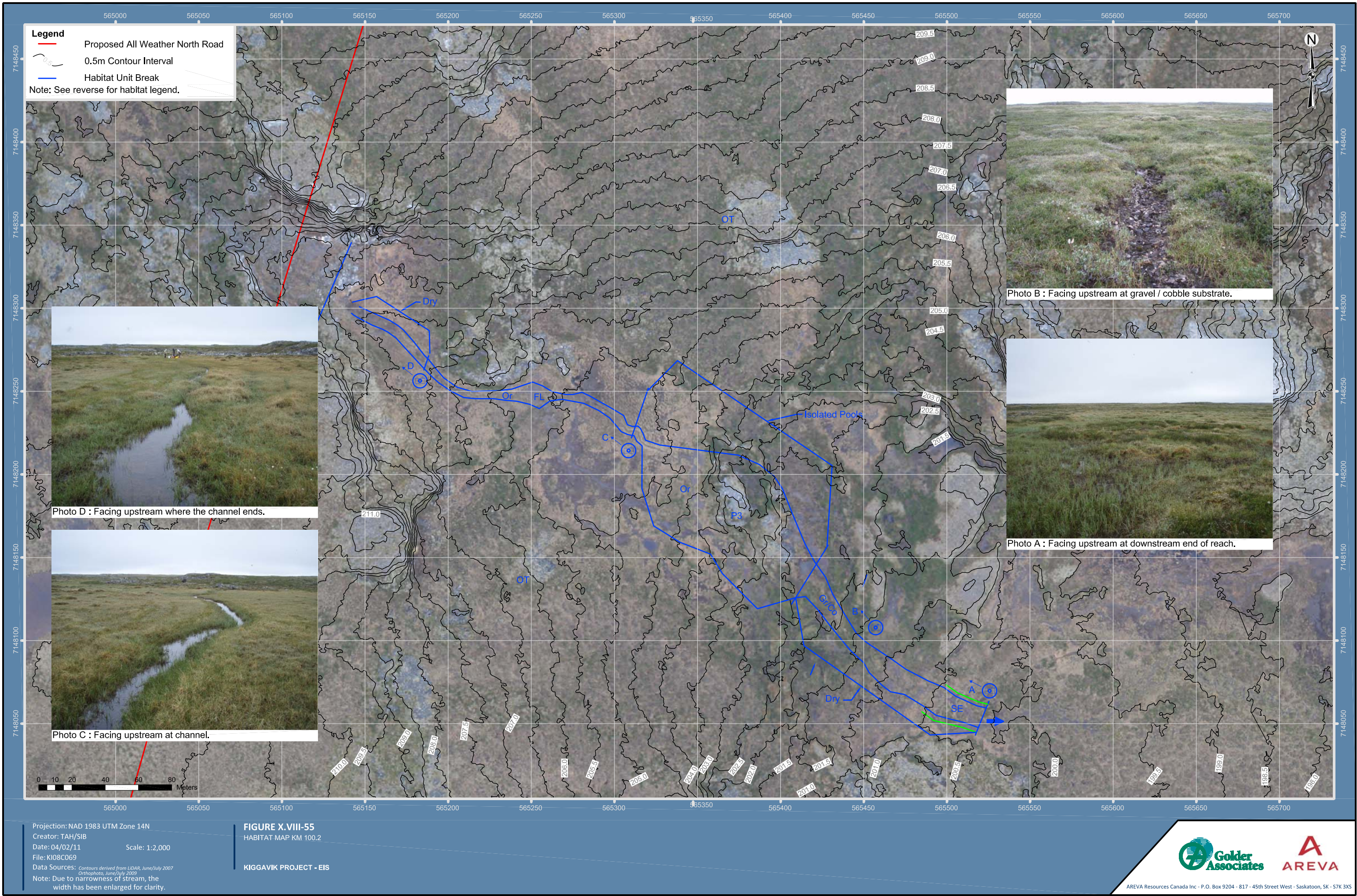
Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

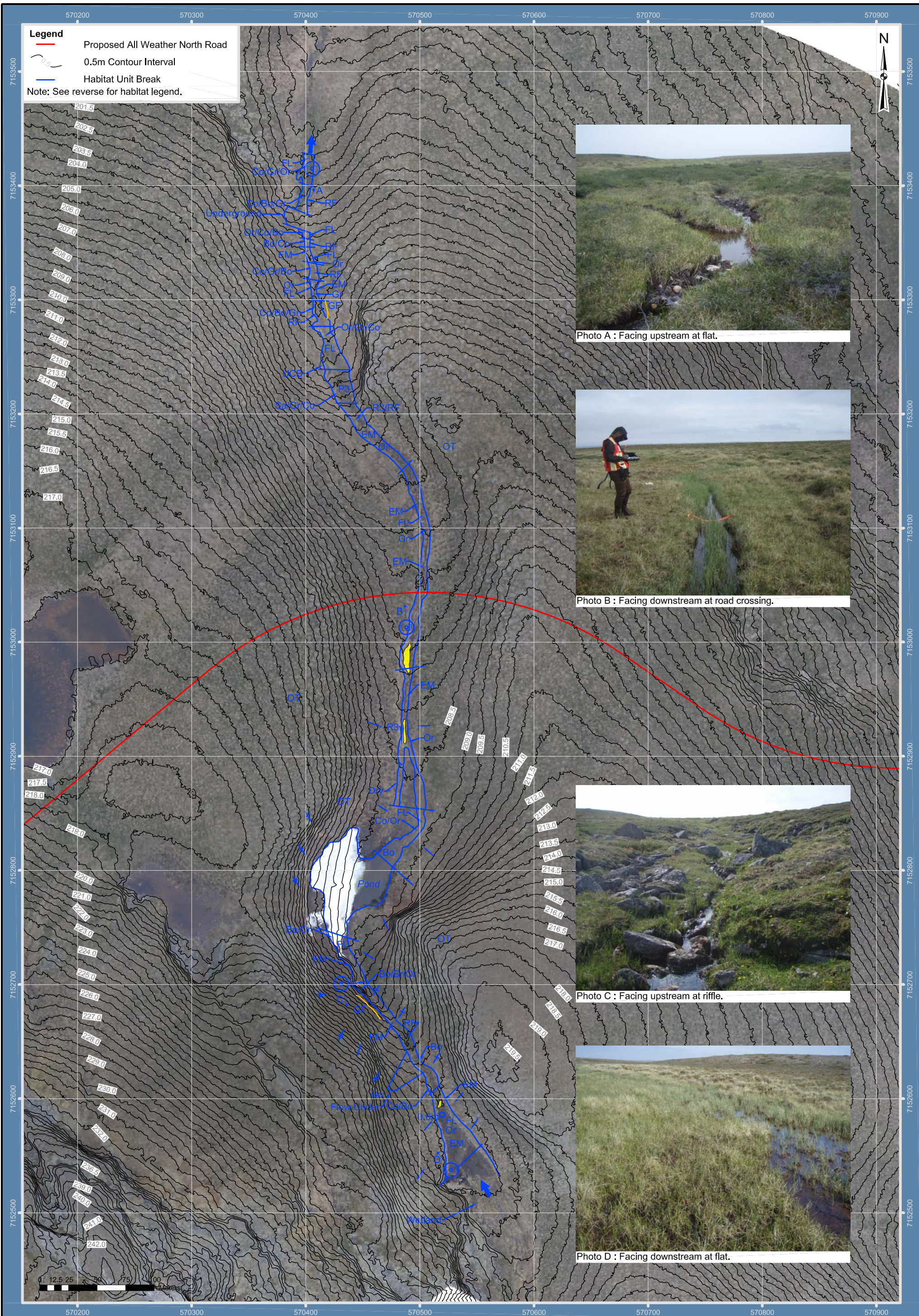
Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C068
Data Sources: Contours derived from LIDAR, June/July 2007
Orthophoto, June/July 2009
Note: Due to narrowness of stream, the width has been enlarged for clarity.

FIGURE X.VIII-56
HABITAT MAP KM 107.8

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres

Legend - Rivers and Streams

Substrate Types	
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Sl	Silt
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Gr	Gravel
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Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
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🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
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➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
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OHV	Overhanging Vegetation
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RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
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Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
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GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

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→	Shallow Slope (0-5%)
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→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
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FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
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		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres

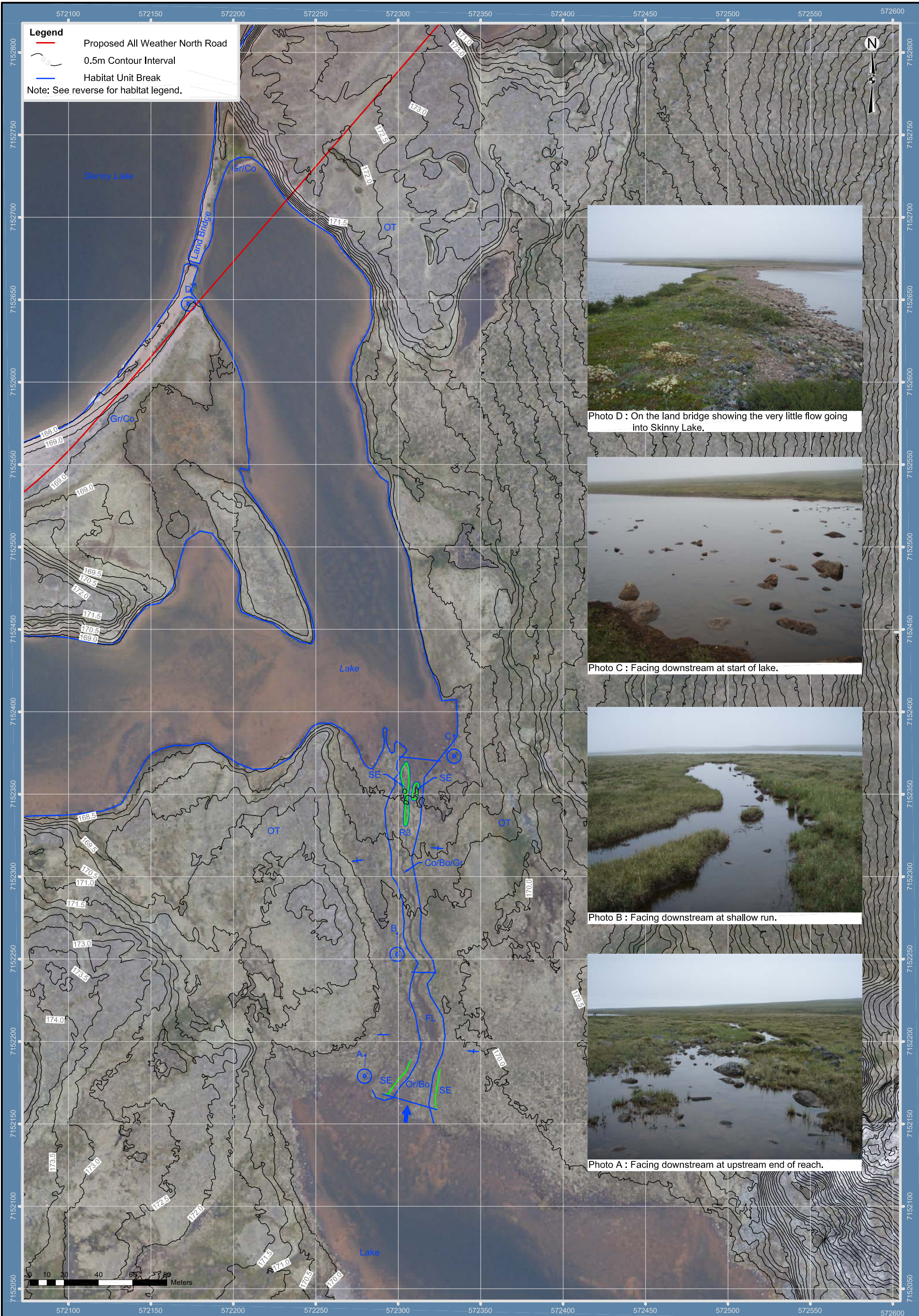


Photo D : On the land bridge showing the very little flow going into Skinny Lake.



Photo C : Facing downstream at start of lake.



Photo B : Facing downstream at shallow run.



Photo A : Facing downstream at upstream end of reach.

Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C067
Data Sources: Contours derived from LIDAR, June/July 2007
Orthophoto, June/July 2009
Note: Due to narrowness of stream, the width has been enlarged for clarity.

FIGURE X.VIII-58
HABITAT MAP KM 109.8

KIGGAUVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Rivers and Streams

Substrate Types	
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Habitat Features	
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	Culvert
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➡	Flow Direction
	ISC Instream Cover
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UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
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GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
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SH	Shrubs
MO	Moss
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Bank Instability Ratings	
A	Aggrading
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S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
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GN	Gill Net
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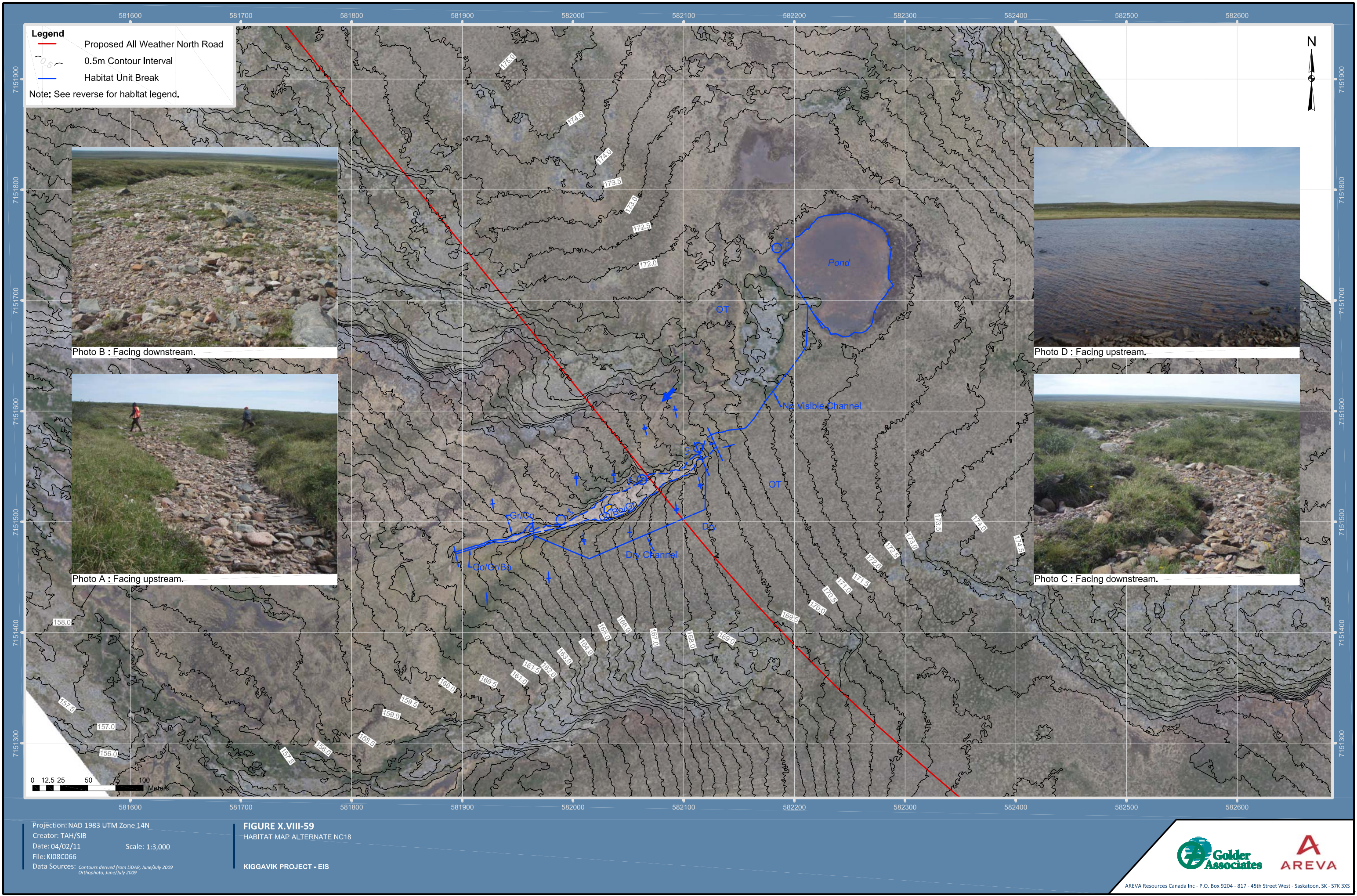
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
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	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
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		BG	Boulder Garden
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Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
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Substrate Type

Fish Species

Notes:
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Legend - Rivers and Streams

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🟤	Sediment
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General	
📍	Photo Location/Direction
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Bank/Upland Vegetation Types	
BA	Bare Ground
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Habitat Classification
Substrate Type

Fish Species

Notes:
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Legend - Rivers and Streams

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Bank Instability Ratings	
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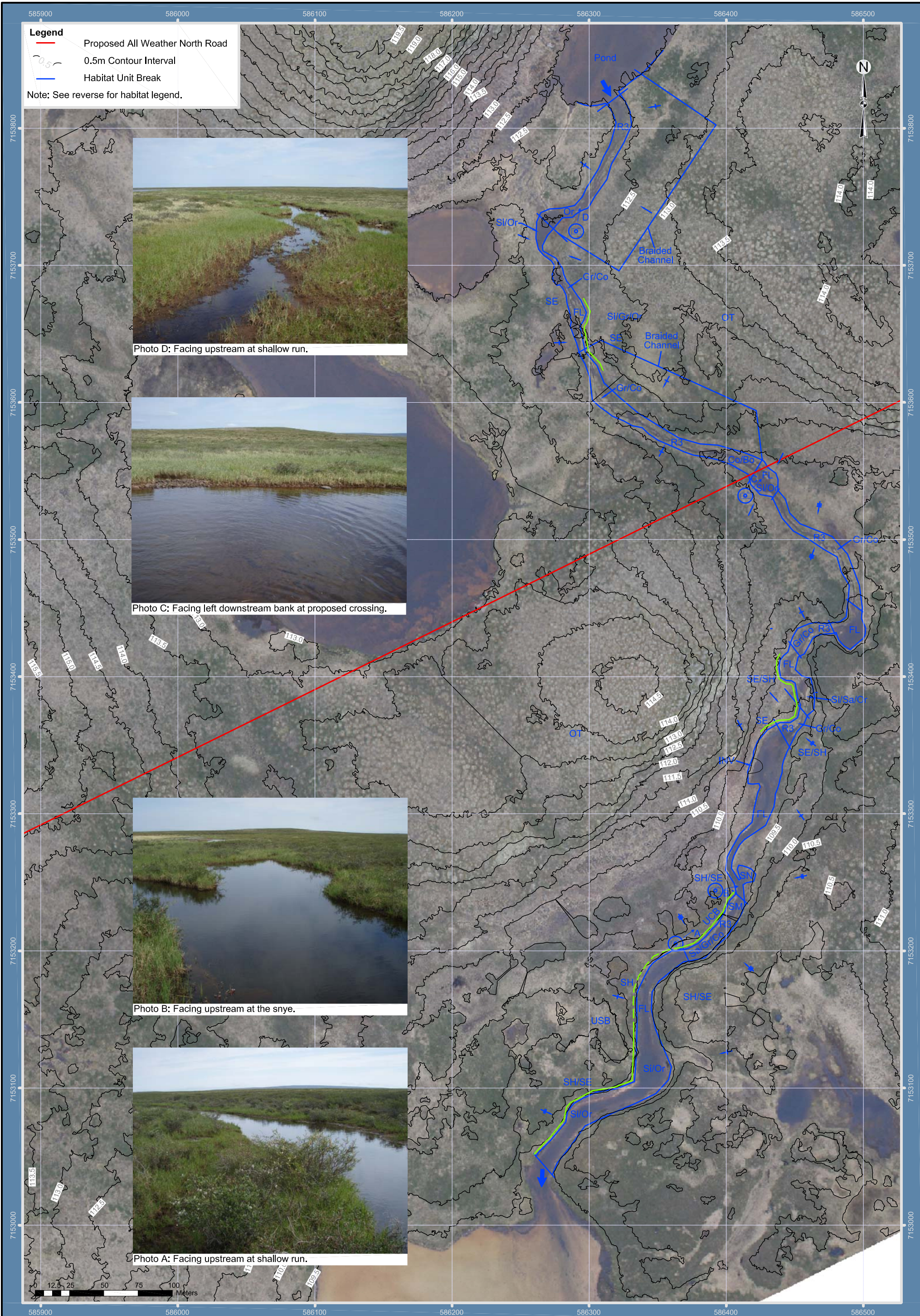
Capture Methods	
BP	Electrofishing - Backpack
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Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: AKG/TAH
Date: 04/02/11
File: KI08C064
Data Sources: Contours derived from LIDAR, June/July 2009
Orthophoto, June/July 2009
Note: Due to narrowness of stream, the width has been enlarged for clarity.

FIGURE X.VIII-61
HABITAT MAP KM 127.5

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3K5

Legend - Rivers and Streams

Substrate Types	
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Habitat Features	
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Sample Type Symbols	
🟦	Water
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General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
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Bank/Upland Vegetation Types	
BA	Bare Ground
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Bank Instability Ratings	
A	Aggrading
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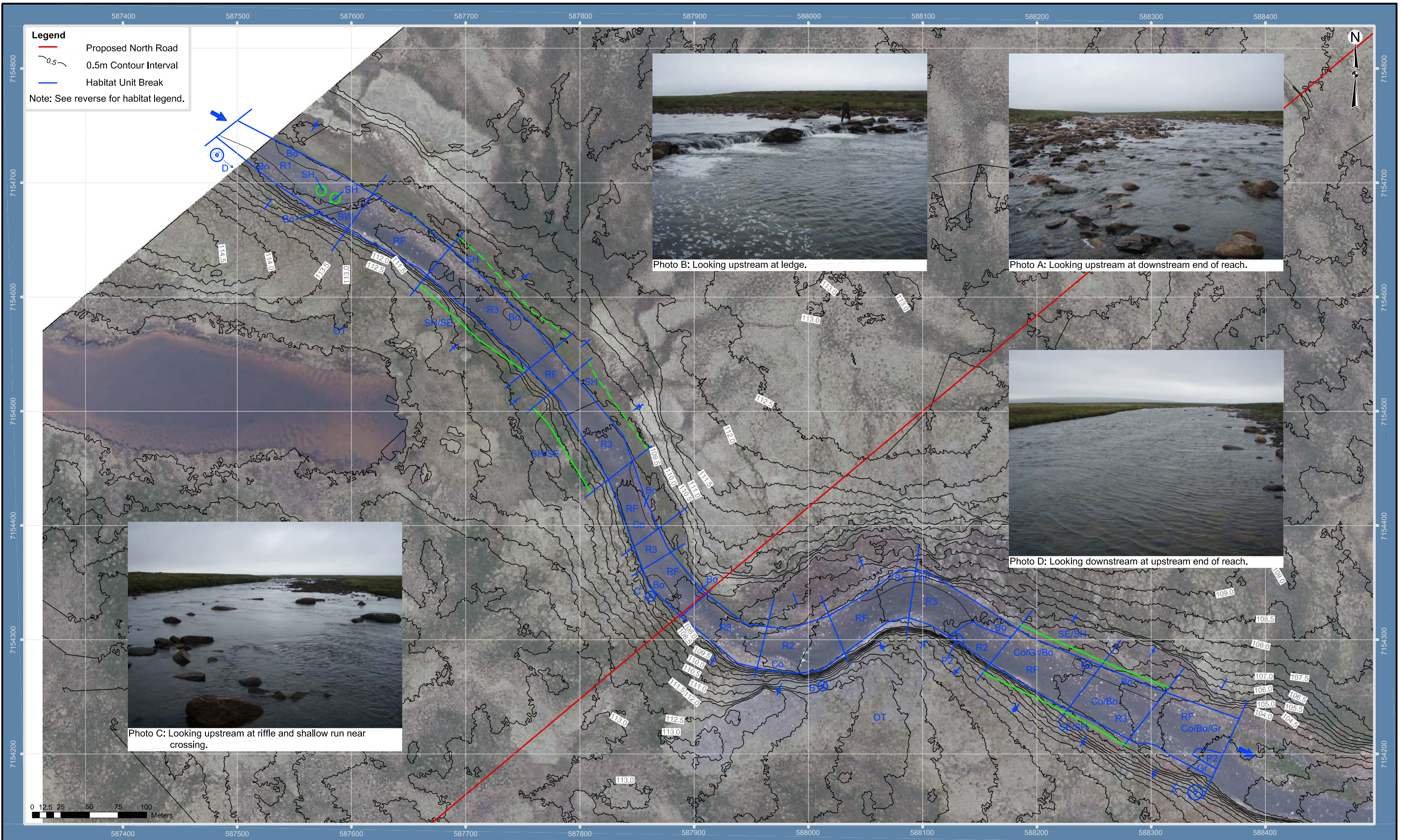
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		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
 Creator: AKG/SIB
 Date: 04/02/11
 File: K108C063
 Data Sources: Contours derived from LIDAR, June/July 2009
 Orthophoto, June/July 2009

FIGURE X.VIII-62
 HABITAT MAP KM 129.2

KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
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🌿🌿	Bridge
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##	DP Debris Pile
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Sample Type Symbols	
🟦	Water
🟤	Sediment
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/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
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Bank Instability Ratings	
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Capture Methods	
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IN	Gill Net
SN	Seine
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MT	Minnow Trap
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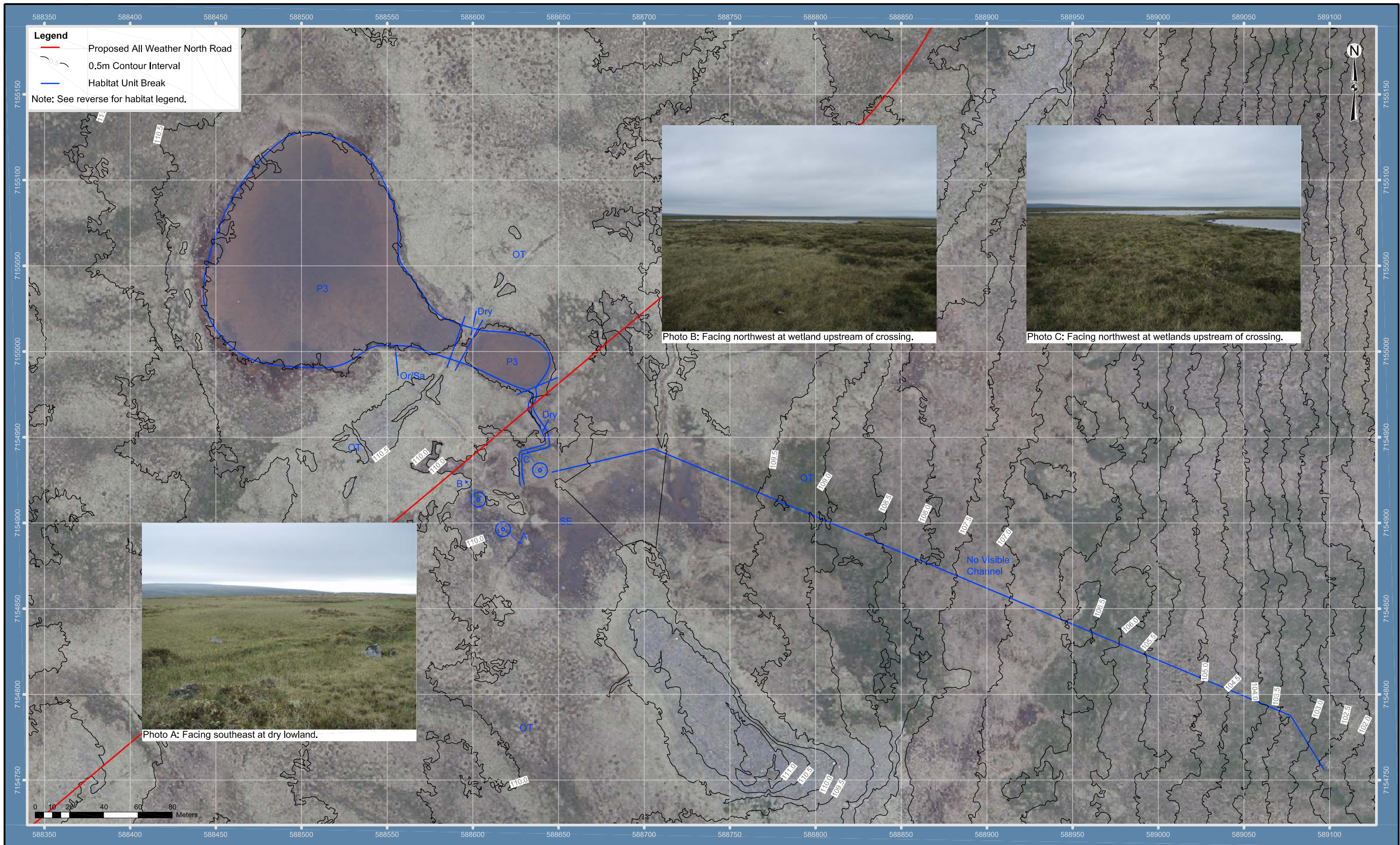
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	Impound (dammed pool)	IP	Impound
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		BW	Backwater
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		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
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Average Bankful Width (m)
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Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
 Creator: AKG/TAH
 Date: 04/02/11
 File: K108C062
 Data Sources: Contours derived from LIDAR, June/July 2009
 Orthophoto, June/July 2009

FIGURE X.VIII-63
 HABITAT MAP KM 130.1

KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
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Bd	Bedrock
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Habitat Features	
XXXX	BD Beaver Dam
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#	DP Debris Pile
EM	Emergent Vegetation
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	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
+→	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
🔗	Hoop Net/Trap Net

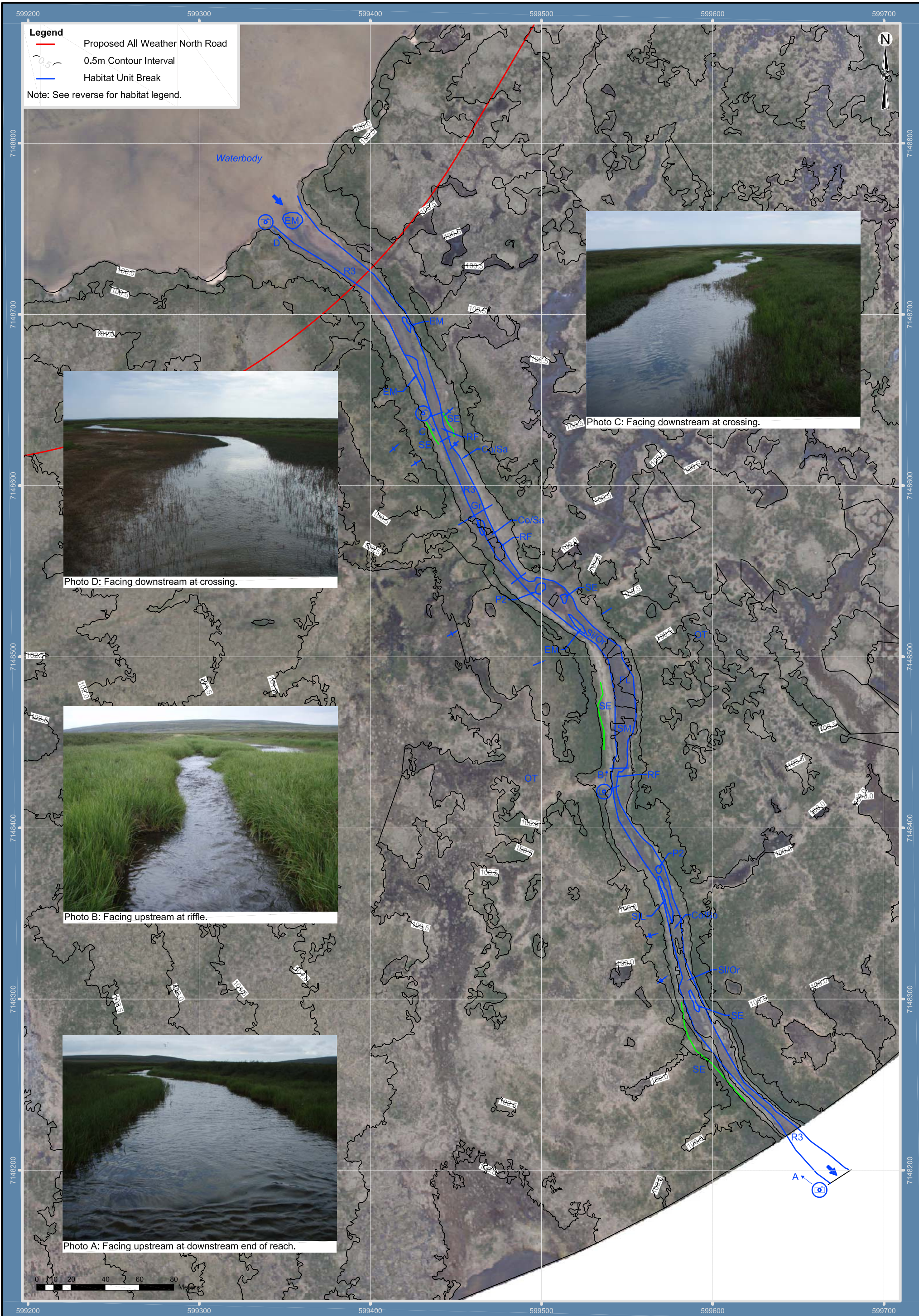
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: AKG/TAH
Date: 04/02/11
File: KI08C060
Data Sources: Contours derived from LIDAR, June/July 2009
Orthophoto, June/July 2009

FIGURE X.VIII-65
HABITAT MAP KM 145.3

KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: AKG/TAH
Date: 04/02/11
File: K108C059
Data Sources: Contours derived from LIDAR, June/July 2009
Orthophoto, June/July 2009
Note: Due to narrowness of stream, the width has been enlarged for clarity.

FIGURE X.VIII-66
HABITAT MAP KM 147.1

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3K5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
🔗	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
##	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
##	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
##	SWD Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
🔗	Hoop Net/Trap Net

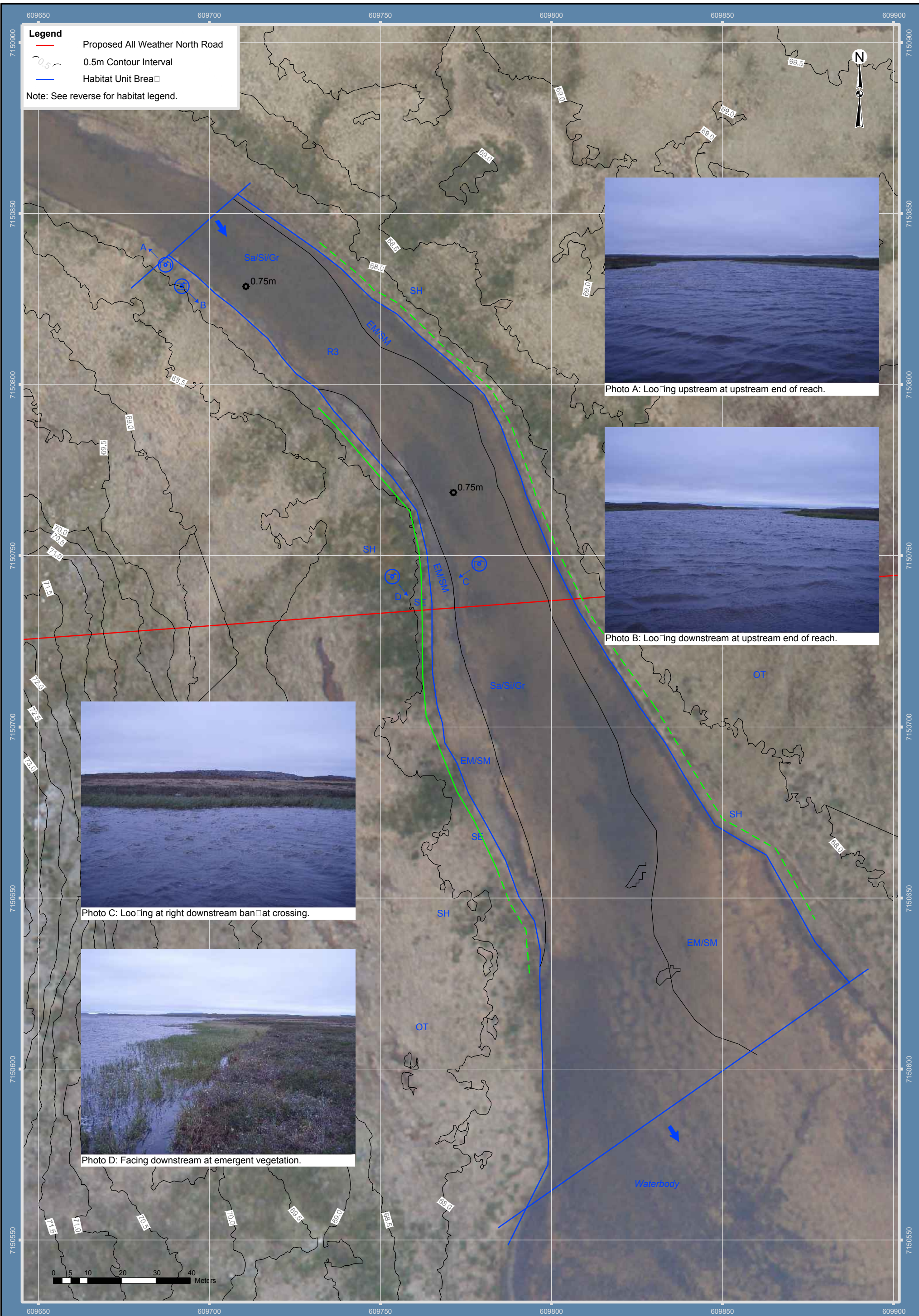
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: AKG/TAH
Date: 04/02/11
File: KI08C057
Data Sources: Contours derived from LIDAR, June/July 2009
Orthophoto, June/July 2009

FIGURE X.VIII-68
HABITAT MAP KM 157.3
KIGGAVIK PROJECT - EIS

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
▬	MD Man-Made Dam
🌿	BL Beaver Lodge
🍷	BG Boulder Garden
🌿🌿	Bridge
┐	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
┌───┐	Width
○	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
EM	Emergent Vegetation
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
+→	Intermediate Slope (6-30%)
+→	Steep Slope (31-70%)
##→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gully'ing

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
I	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

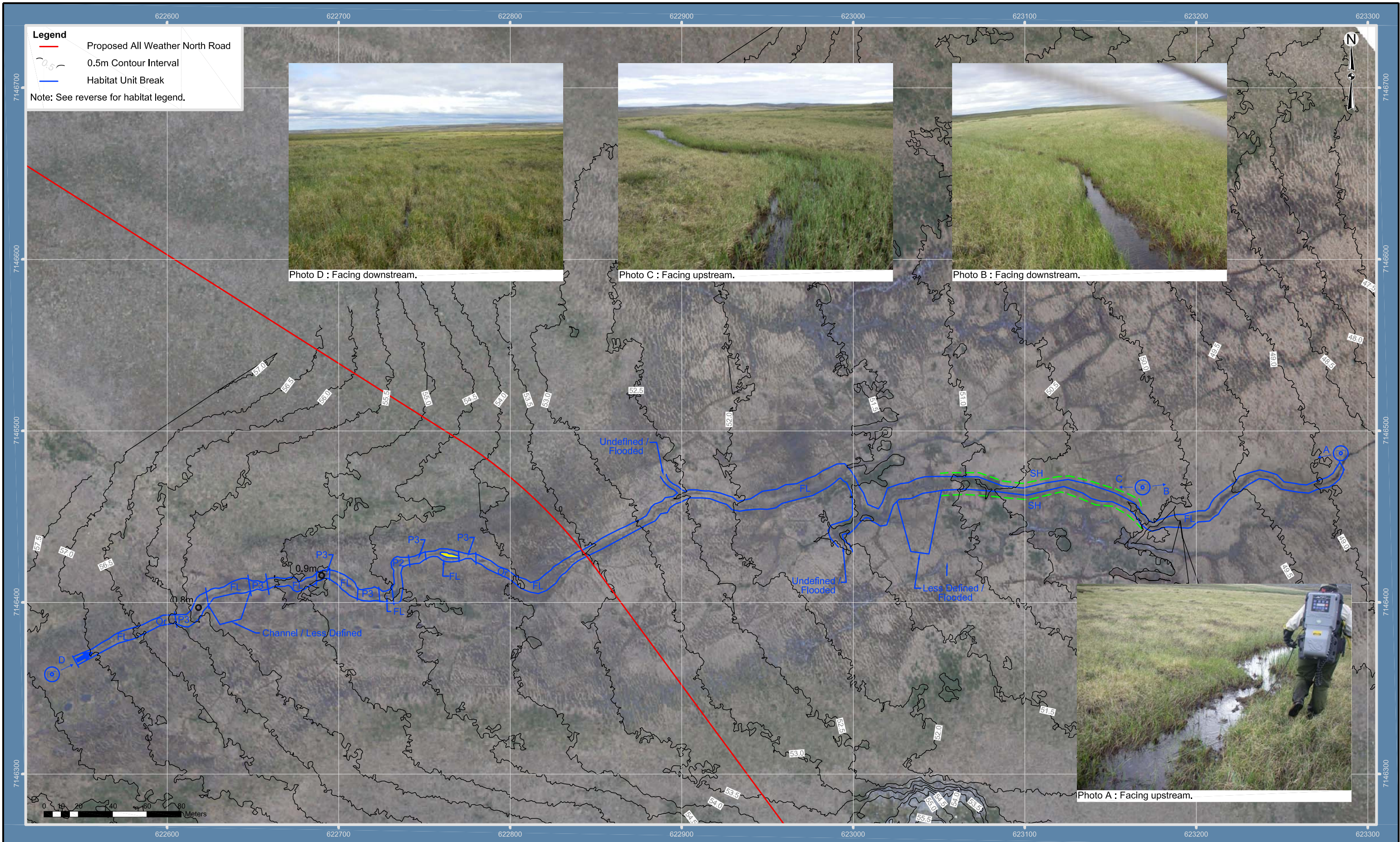
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: TAH
Date: 04/02/11
File: K108C055
Data Sources: Contours derived from LIDAR, June/July 2009
Orthophoto, June/July 2009
Note: Due to narrowness of stream, the width has been enlarged for clarity.

FIGURE X.VIII-70
HABITAT MAP KM 172.2

KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

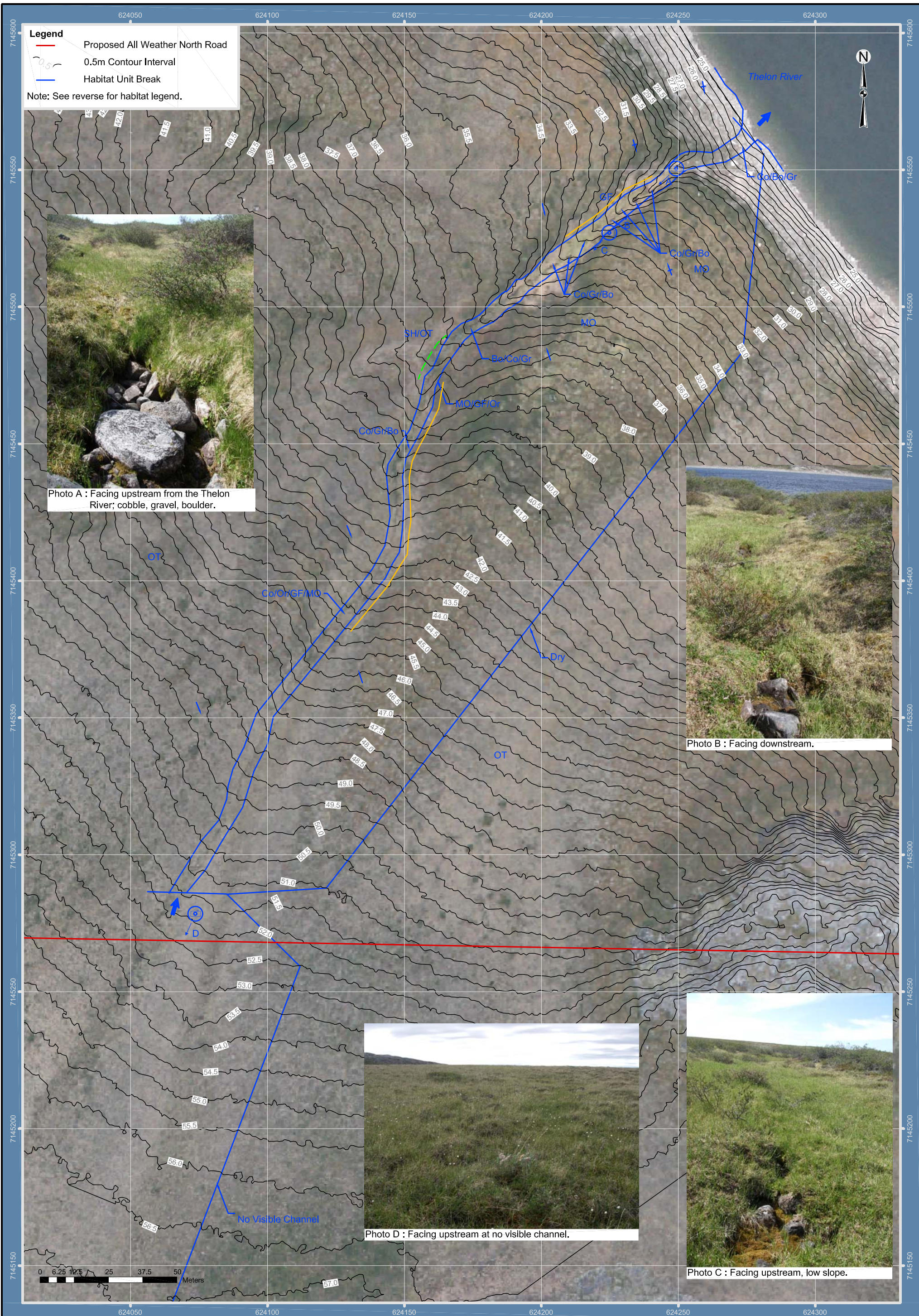
Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
🔗	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: TAH
Date: 04/02/11
File: KI08C054
Data Sources: Contours derived from LIDAR, June/July 2009
Orthophoto, June/July 2009

FIGURE X.VIII-71
HABITAT MAP KM 174.3

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟠	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Width
○	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
🔗	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres

Proposed All Weather North Road
45.0 0.5m Contour Interval
Habitat Unit Brea

Note: See reverse for habitat legend.



0 37.5 75 150 225 300 Meters

Projection: NAD 1983 UTM Zone 14N
Creator: SIB/AJL
Date: 04/02/11
File: K108C039
Data Sources: Contours derived from LIDAR, June/July 2009
Orthophoto, June/July 2009

FIGURE X.VIII-72a
HABITAT MAP KM 174.8
THELON RIVER PROPOSED ROAD CROSSING
KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
▬	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
⌋	Bridge
I	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
o	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
EM	Emergent Vegetation
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
+→	Intermediate Slope (6-30%)
+→	Steep Slope (31-70%)
##→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gully'ing

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
I	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: AJL/SIB
Date: 04/02/11
File: KI08C040
Data Sources: Orthophoto, June/July 2009

FIGURE X.VIII-72b
HABITAT MAP KM 174.8
THELON RIVER: PROPOSED NUNA ICE BRIDGE
KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
▬	MD Man-Made Dam
🌿	BL Beaver Lodge
🍷	BG Boulder Garden
⌋	Bridge
⌋	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
o	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
EM	Emergent Vegetation
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
+→	Intermediate Slope (6-30%)
+→	Steep Slope (31-70%)
##→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
I	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

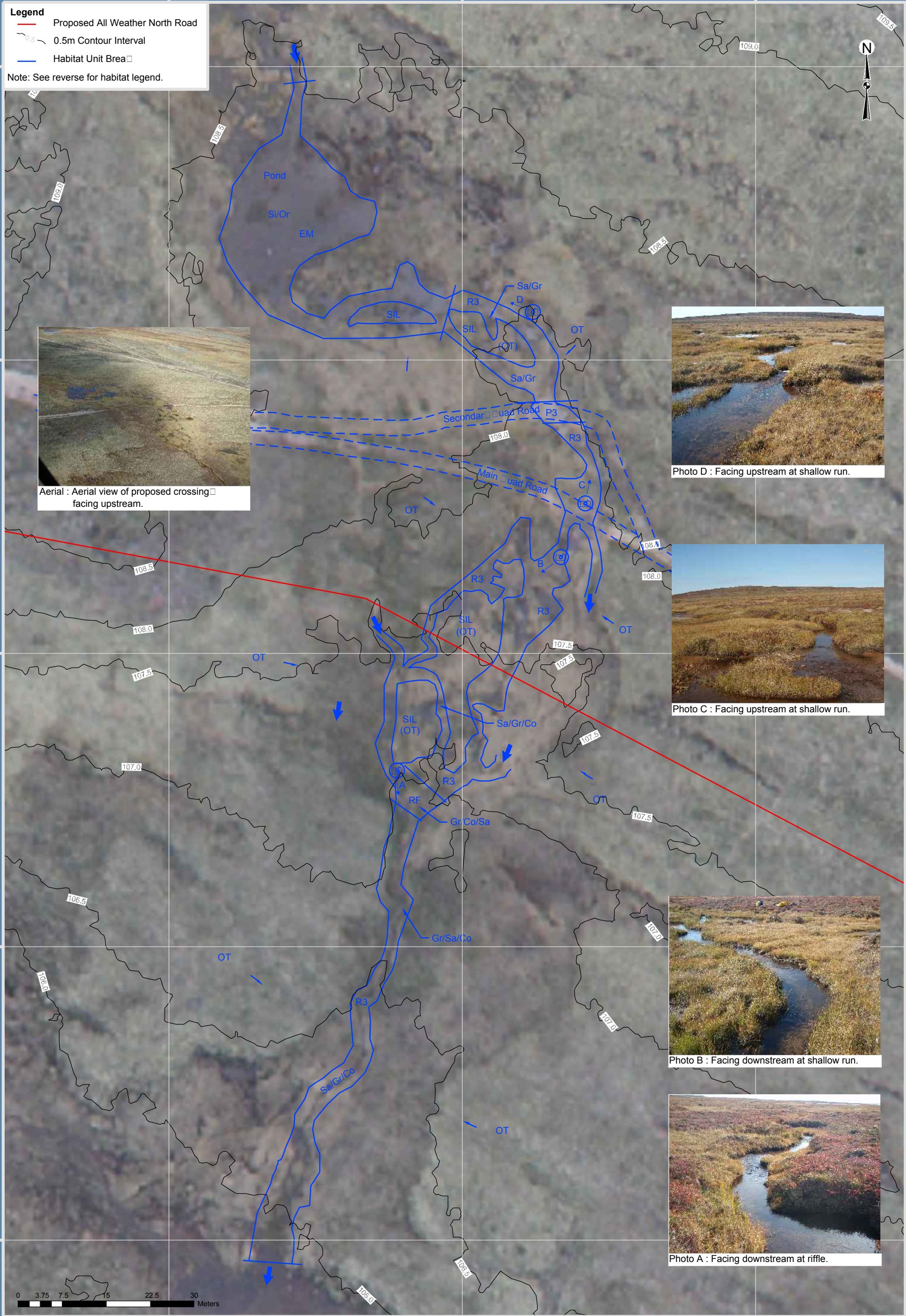
Fish Species

Notes:
m = metres

Legend

- Proposed All Weather North Road
- 0.5m Contour Interval
- Habitat Unit Breach

Note: See reverse for habitat legend.



Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C087
Data Sources: Contours derived from LIDAR, June/July 2009
Orthophoto, June/July 2009
Note: Due to narrowness of stream, the width has been enlarged for clarity.

FIGURE X.VIII-73
HABITAT MAP ALTERNATE EC22
KIGGAVIK PROJECT - EIS

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
▬	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
↯	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
o	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
EM	Emergent Vegetation
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
+→	Intermediate Slope (6-30%)
+→	Steep Slope (31-70%)
##→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
I	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

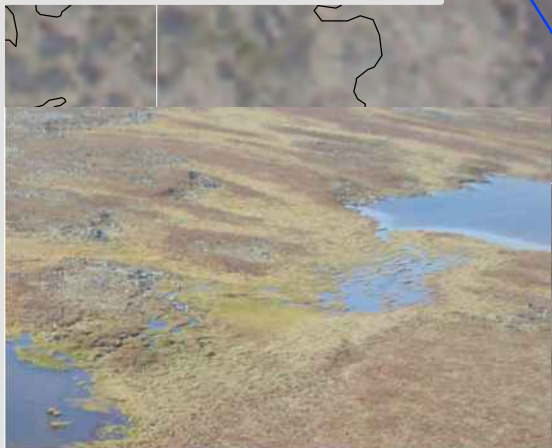
Fish Species

Notes:
m = metres

Legend

- Proposed All Weather North Road
- 0.5m Contour Interval
- Habitat Unit Brea

Note: See reverse for habitat legend.



Aerial : Aerial view of proposed crossing facing upstream.

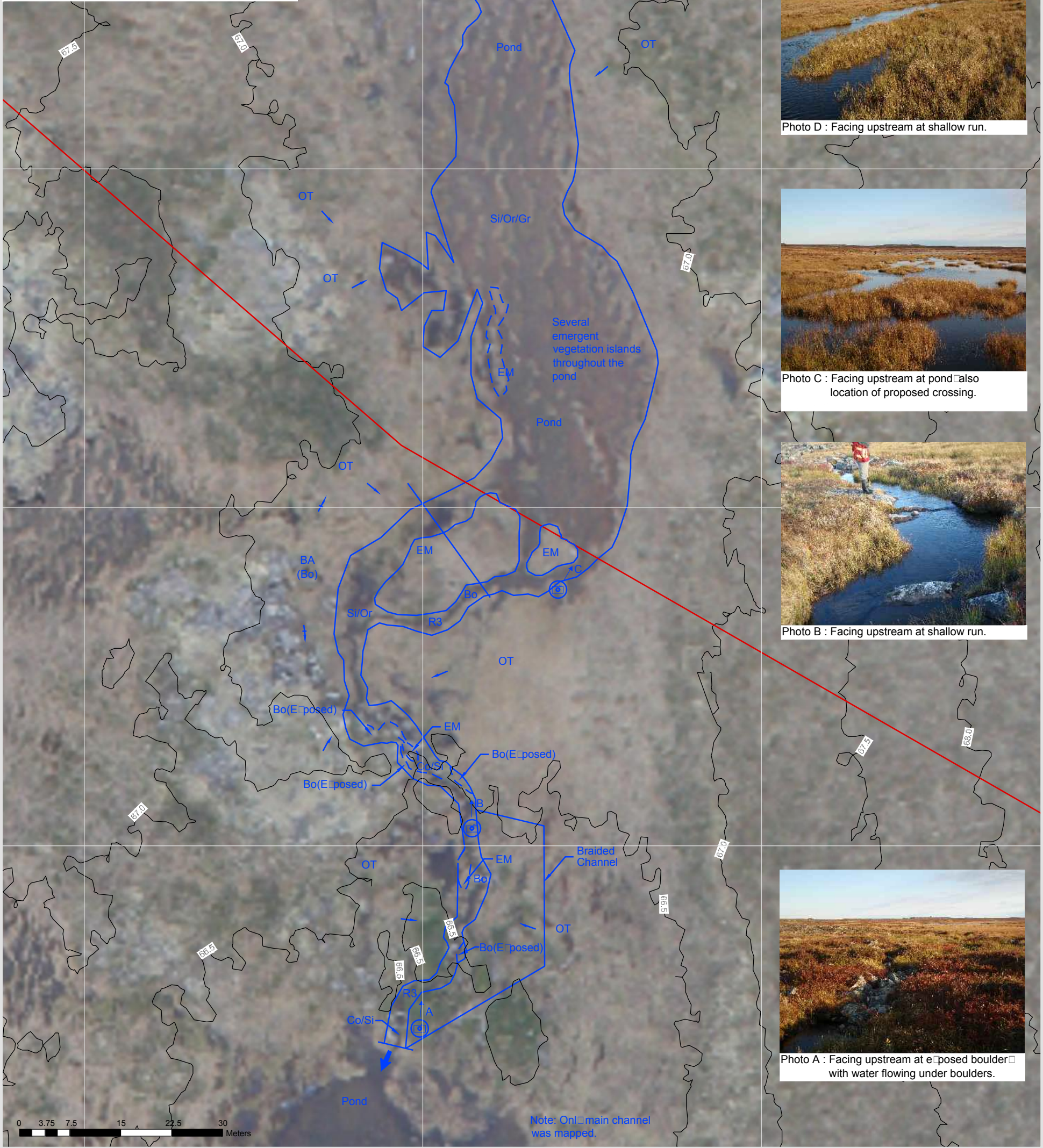


Photo D : Facing upstream at shallow run.



Photo C : Facing upstream at pond also location of proposed crossing.



Photo B : Facing upstream at shallow run.



Photo A : Facing upstream at exposed boulder with water flowing under boulders.

Note: Only main channel was mapped.

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
▬	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
I	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟠	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
EM	Emergent Vegetation
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
+→	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gully'ing

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
I	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
		IP	Impound
	Impound (dammed pool)	IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
Other Features		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

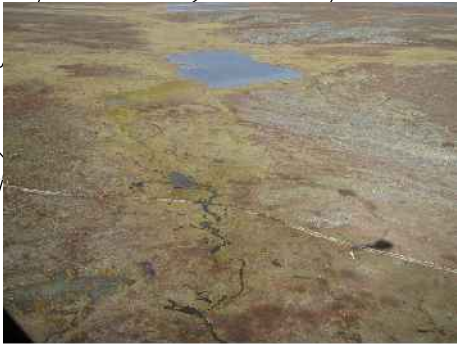
Fish Species

Notes:
m = metres

Legend

- Proposed All Weather North Road
- 0.5m Contour Interval
- Habitat Unit Breach

Note: See reverse for habitat legend.



Aerial : Aerial view of proposed crossing.
facing upstream.



Photo D : Facing upstream at wetland area.



Photo C : Facing upstream at shallow run



Photo B : Facing upstream at shallow run.



Photo A : Facing upstream at shallow run and flat.

Projection: NAD 1983 UTM Zone 15N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C085
Data Sources: Contours derived from LIDAR, June/July 2009
Orthophoto, June/July 2009
Note: Due to narrowness of stream, the width has been enlarged for clarity.

FIGURE X.VIII-75
HABITAT MAP KM 209.4

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
▬	MD Man-Made Dam
🌿	BL Beaver Lodge
🍷	BG Boulder Garden
⌋	Bridge
⌋	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
o	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Decidious Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
EM	Emergent Vegetation
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
+→	Intermediate Slope (6-30%)
+→	Steep Slope (31-70%)
##→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gully'ing

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
I	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
▬	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
I	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟠	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
EM	Emergent Vegetation
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
+→	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gully'ing

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
I	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
		IP	Impound
	Impound (dammed pool)	IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
Other Features		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
▬	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
I	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
o	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Decidious Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
EM	Emergent Vegetation
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
+→	Intermediate Slope (6-30%)
→	Steep Slope (31-70%)
→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gully'ing

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
I	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		IP3	Impound Class 3
Other Features		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	EM	Emergent Vegetation
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
	Impound (dammed pool)	P3	Pool Class 3
		IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
Other Features		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

Notes:
m = metres

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type
Fish Species



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟠	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

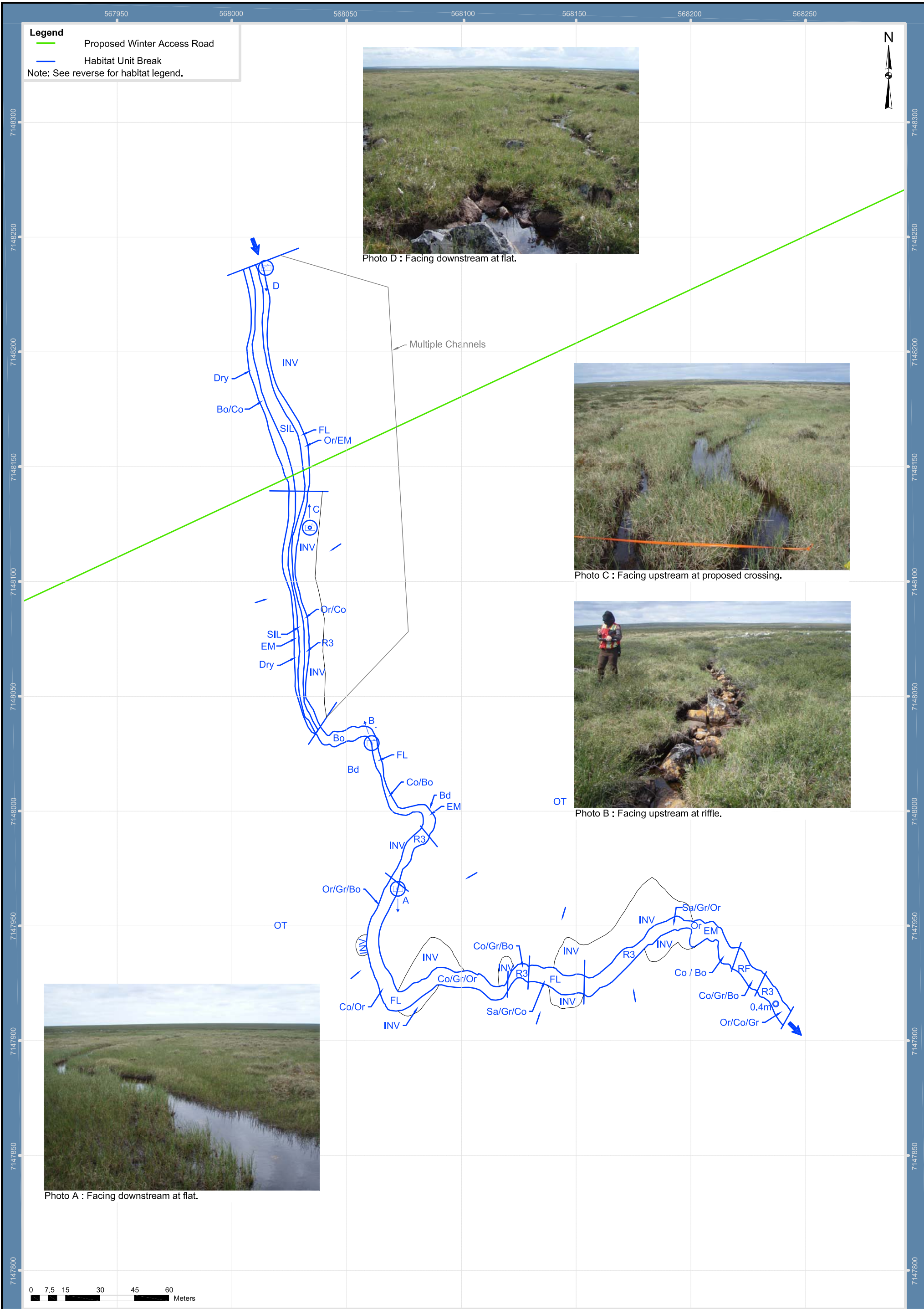
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Legend

- Proposed Winter Access Road
- Habitat Unit Break

Note: See reverse for habitat legend.

Photo D : Facing downstream at flat.

Photo C : Facing upstream at proposed crossing.

Photo B : Facing upstream at riffle.

Photo A : Facing downstream at flat.

Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C077
Data Sources:
Note: Stream width not to scale.

FIGURE X.VIII-79
HABITAT MAP ALTERNATE W2
KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3X5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

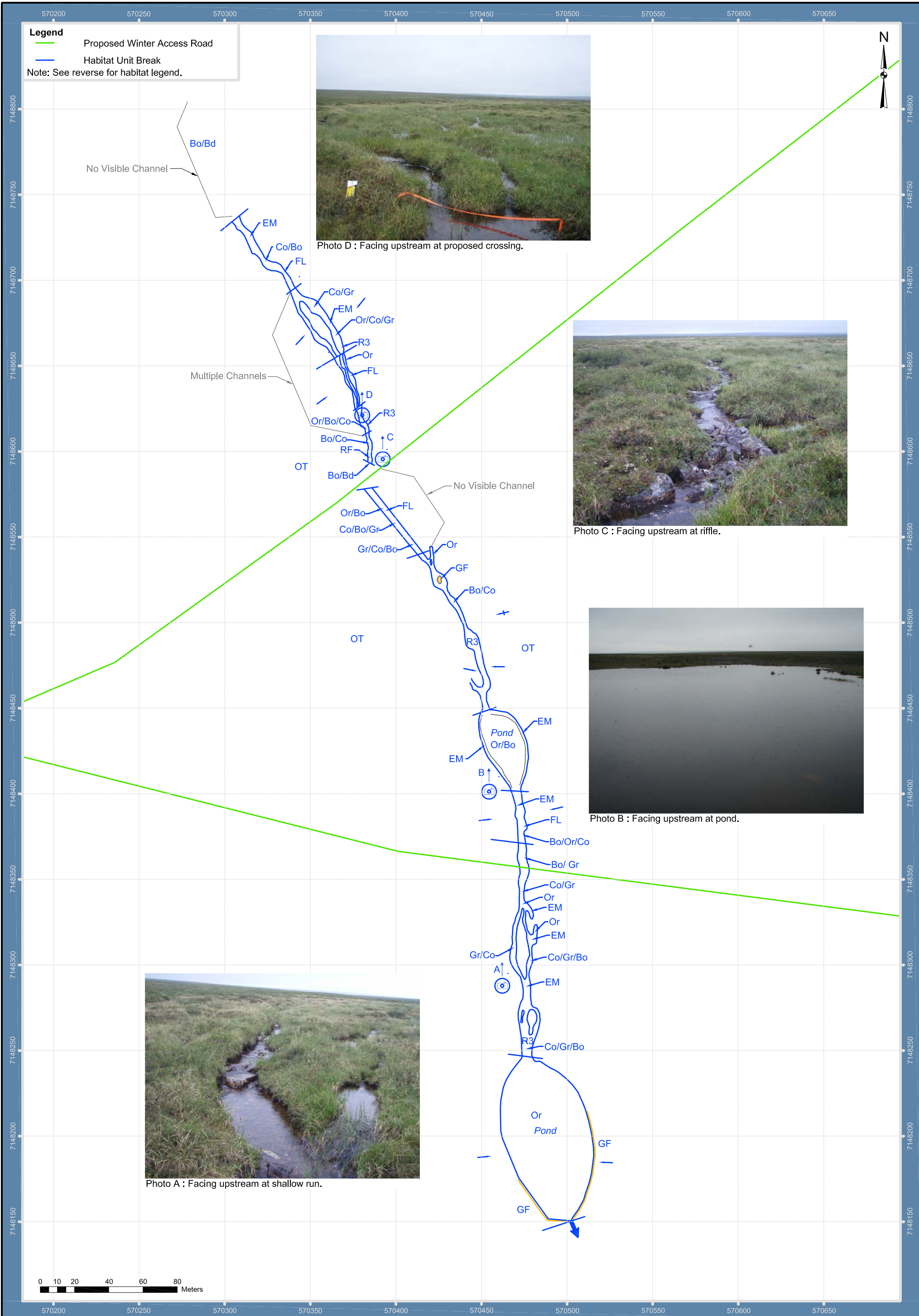
Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
Creator: TAH/SIB
Date: 04/02/11
File: KI08C078
Data Sources:
Note: Stream width not to scale.

FIGURE X.VIII-80
HABITAT MAP ALTERNATE W3
KIGGAVIK PROJECT - EIS

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres

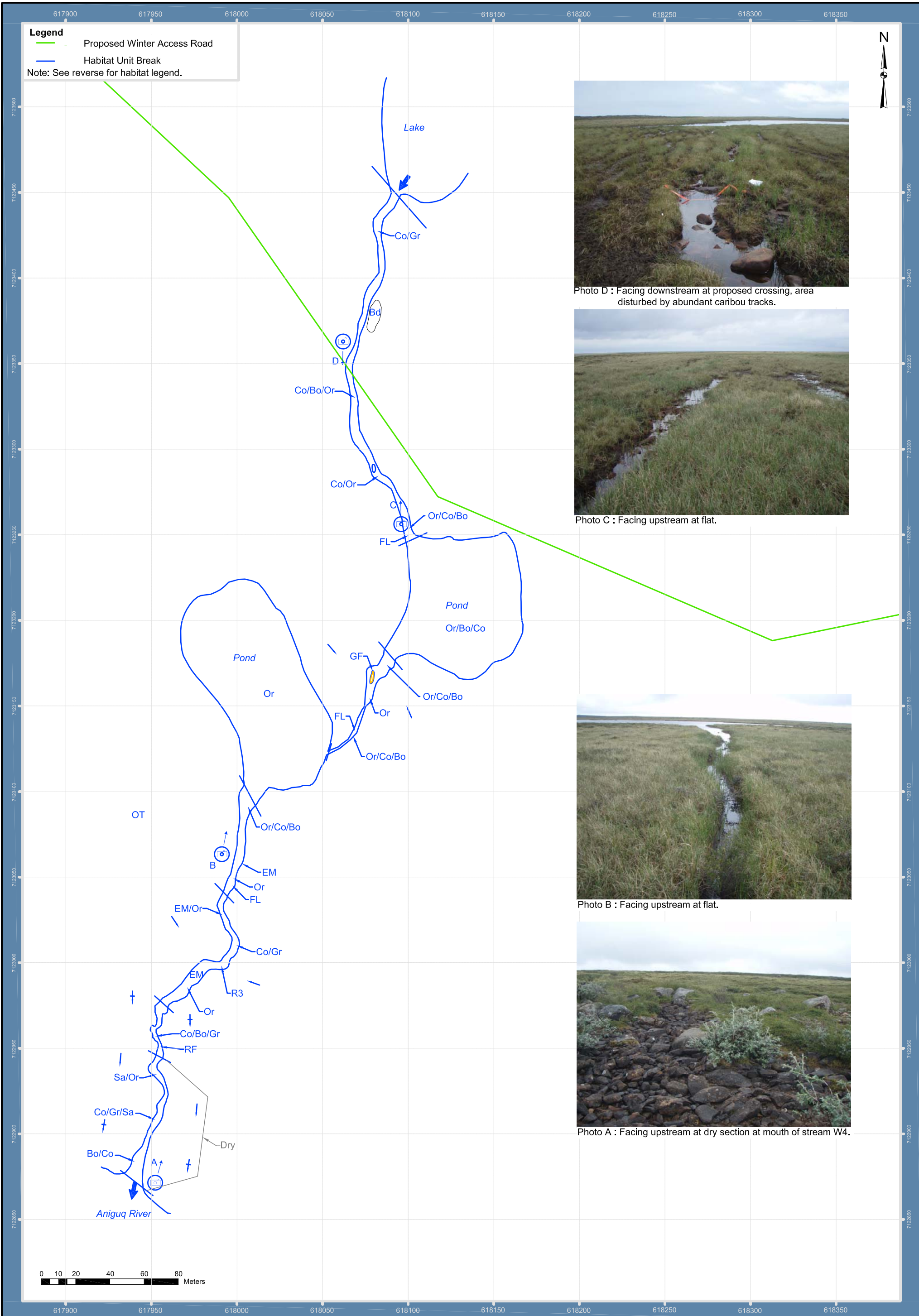


Photo D : Facing downstream at proposed crossing, area disturbed by abundant caribou tracks.



Photo C : Facing upstream at flat.



Photo B : Facing upstream at flat.



Photo A : Facing upstream at dry section at mouth of stream W4.

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
▬	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



FIGURE X.VIII-82
HABITAT MAP ALTERNATE W5

KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍷	BG Boulder Garden
⌵	Bridge
⌵	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
ISC	Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

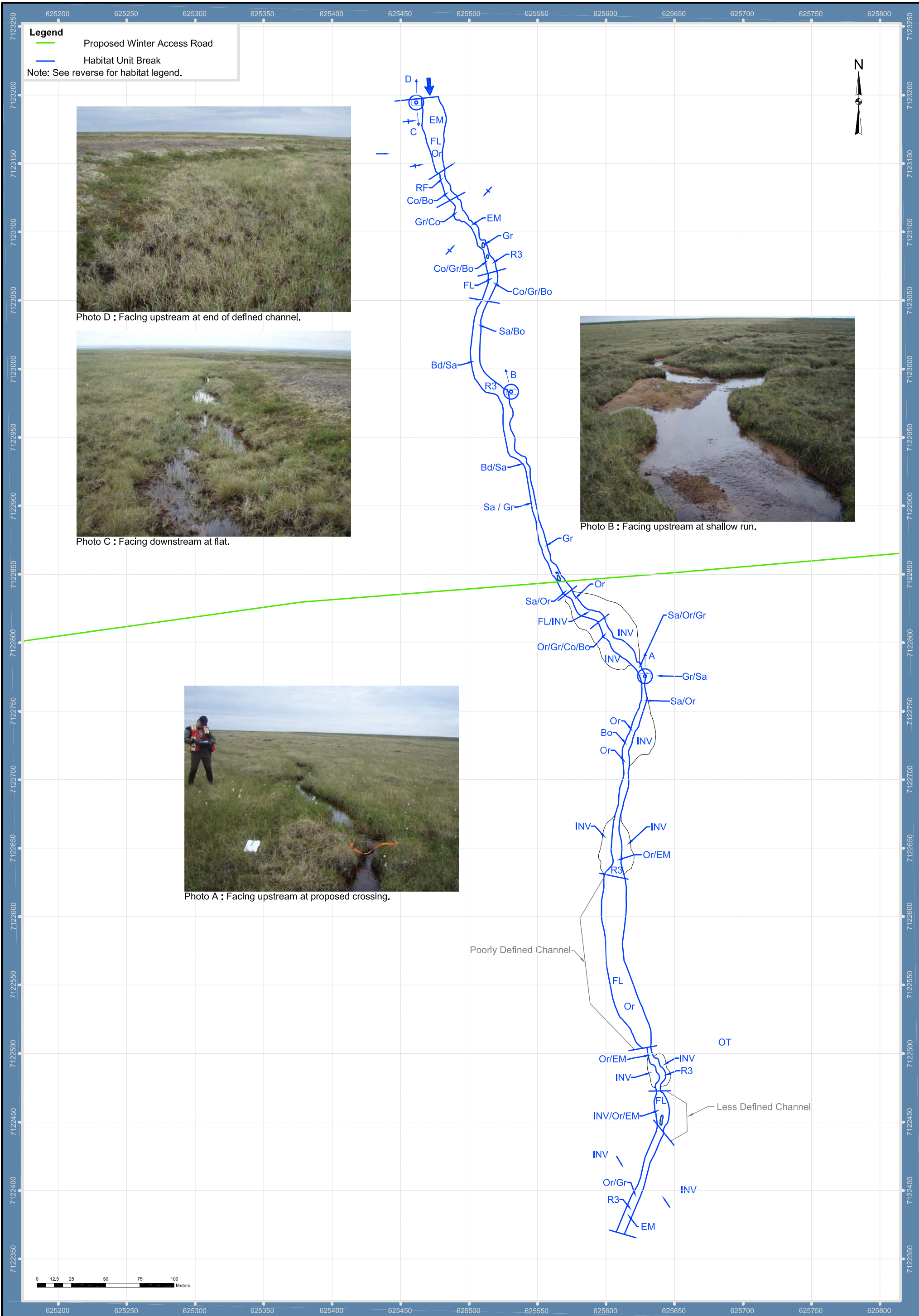
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres

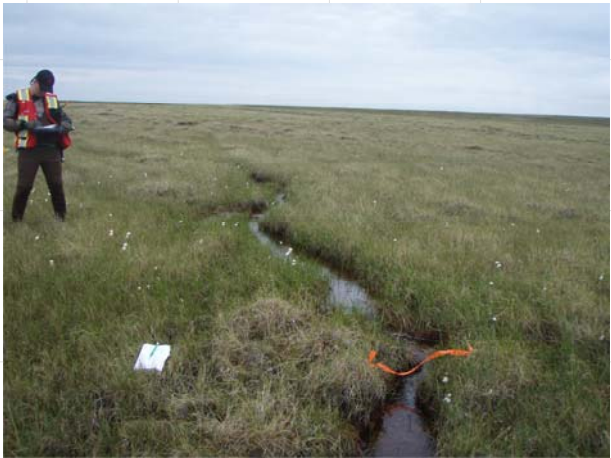


Legend

Proposed Winter Access Road

Habitat Unit Break

Note: See reverse for habitat legend.



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres

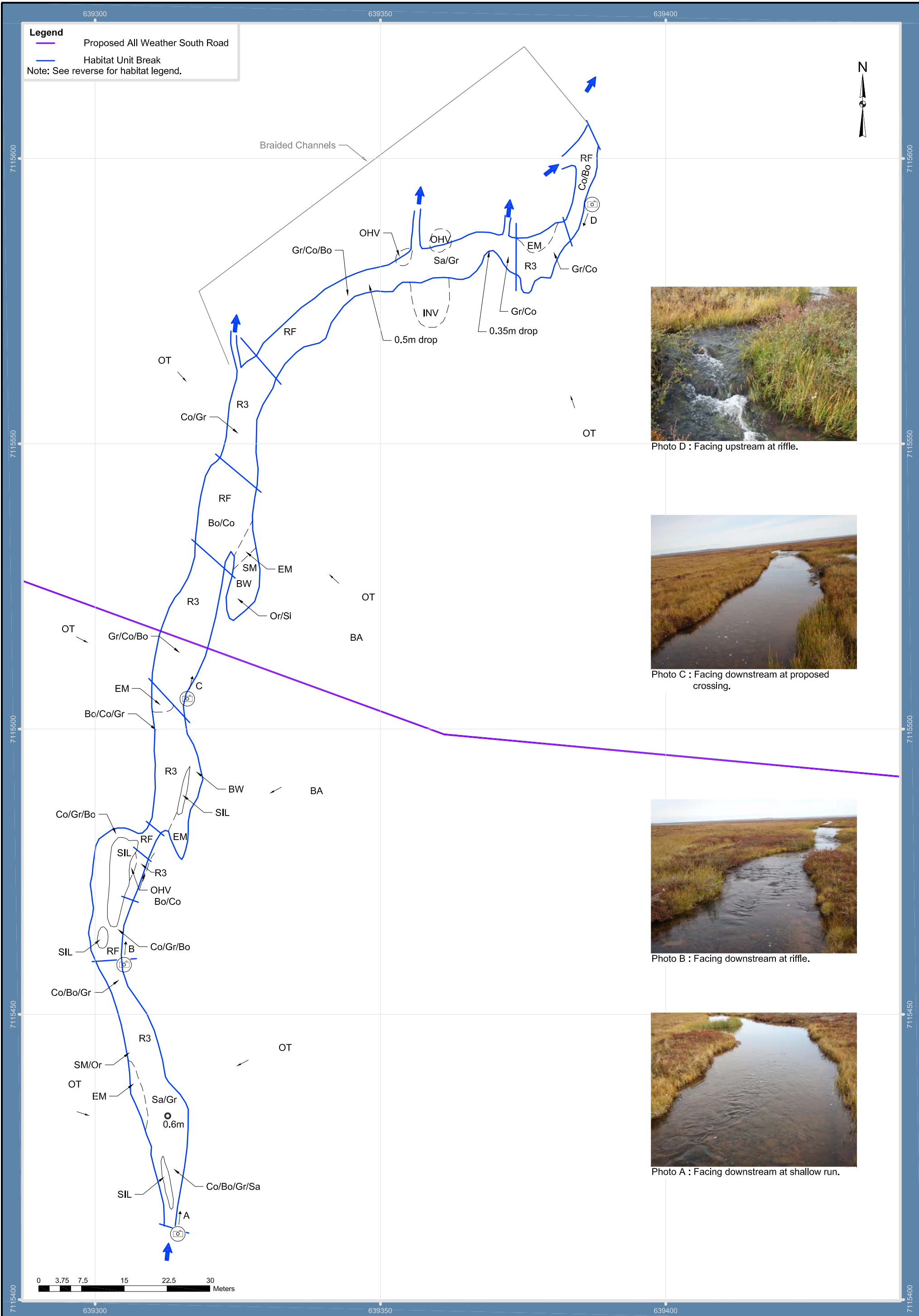


Photo D : Facing upstream at riffle.



Photo C : Facing downstream at proposed crossing.



Photo B : Facing downstream at riffle.



Photo A : Facing downstream at shallow run.

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
+→	Intermediate Slope (6-30%)
→	Steep Slope (31-70%)
→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
🔗	Hoop Net/Trap Net

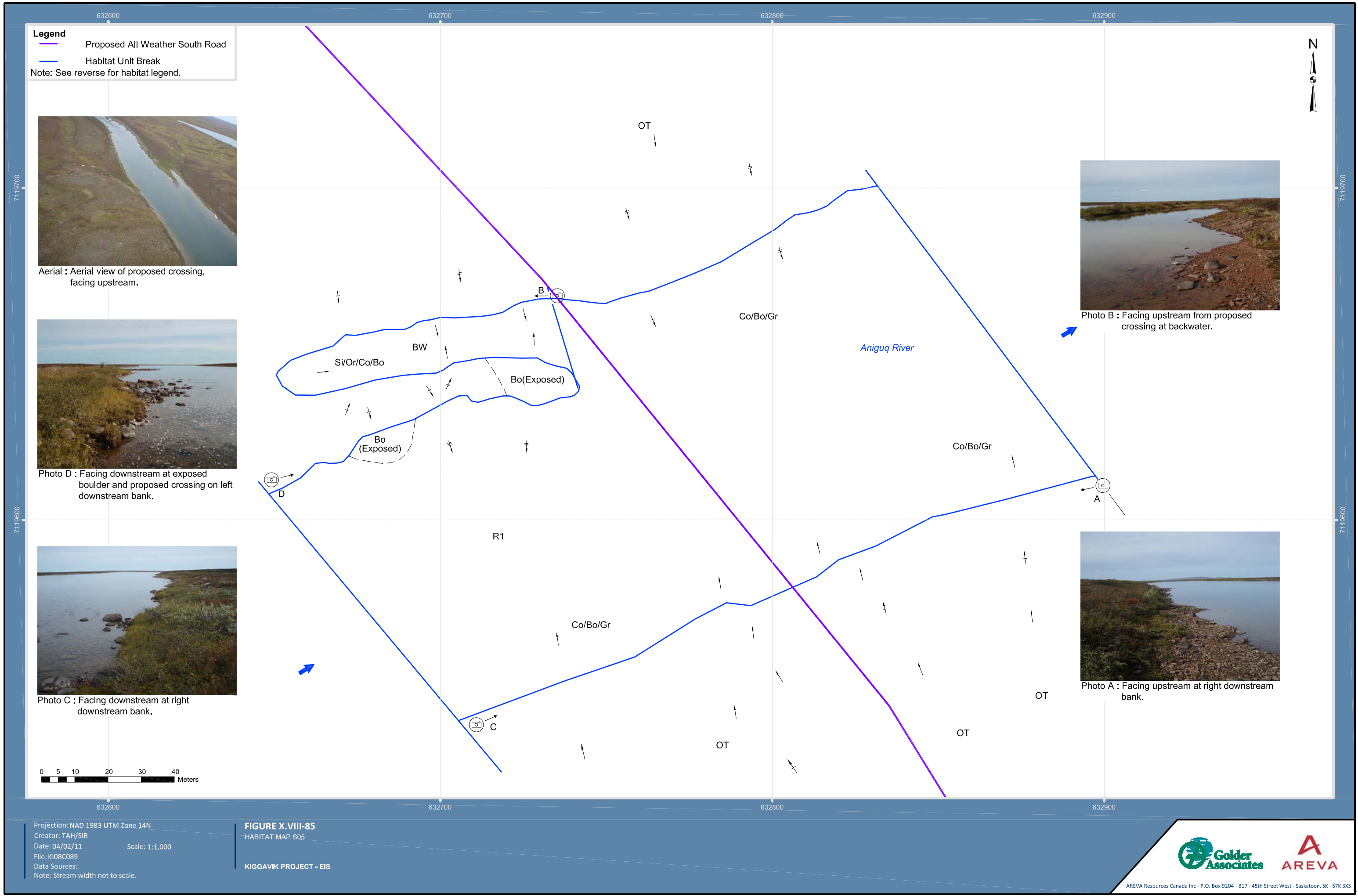
Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres

Legend

- Proposed All Access South Road
- Habitat Unit Break

Note: See reverse for habitat legend.

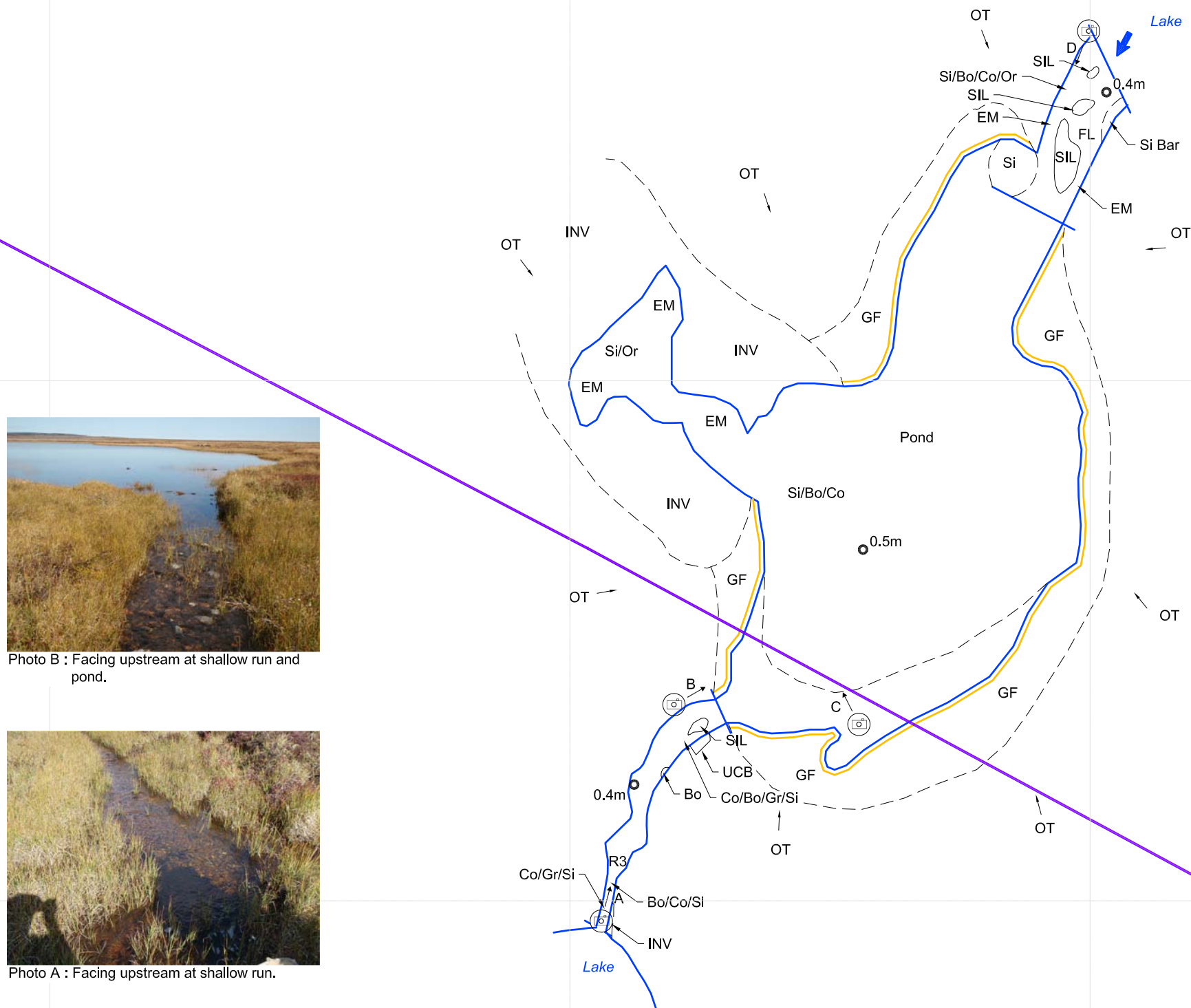
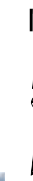


Photo B : Facing upstream at shallow run and pond.



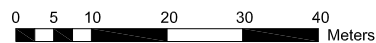
Photo A : Facing upstream at shallow run.



Photo D : Facing downstream at flat.



Photo C : Facing at right downstream bank from proposed crossing.



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH/SIB
 Date: 04/02/11
 File: K108C090
 Data Sources:
 Note: Stream width not to scale.

FIGURE X.VIII-86
 HABITAT MAP S11

KIGGAVIK PROJECT - EIS



AREVA Resources Canada Inc - P.O. Box 9204 - 817 - 45th Street West - Saskatoon, SK - S7K 3K5

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→+	Intermediate Slope (6-30%)
→+	Steep Slope (31-70%)
→+	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
GN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Fish Species

Notes:
m = metres

Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
LE	Ledge
LJ	Log Jam
LS	Landslide
ML	Multiple Island
OHV	Overhanging Vegetation
OHC	Overhead Cover
RW	Root Wad
🟡	Sand Bar
SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
MW	Mixedwood Forest
GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

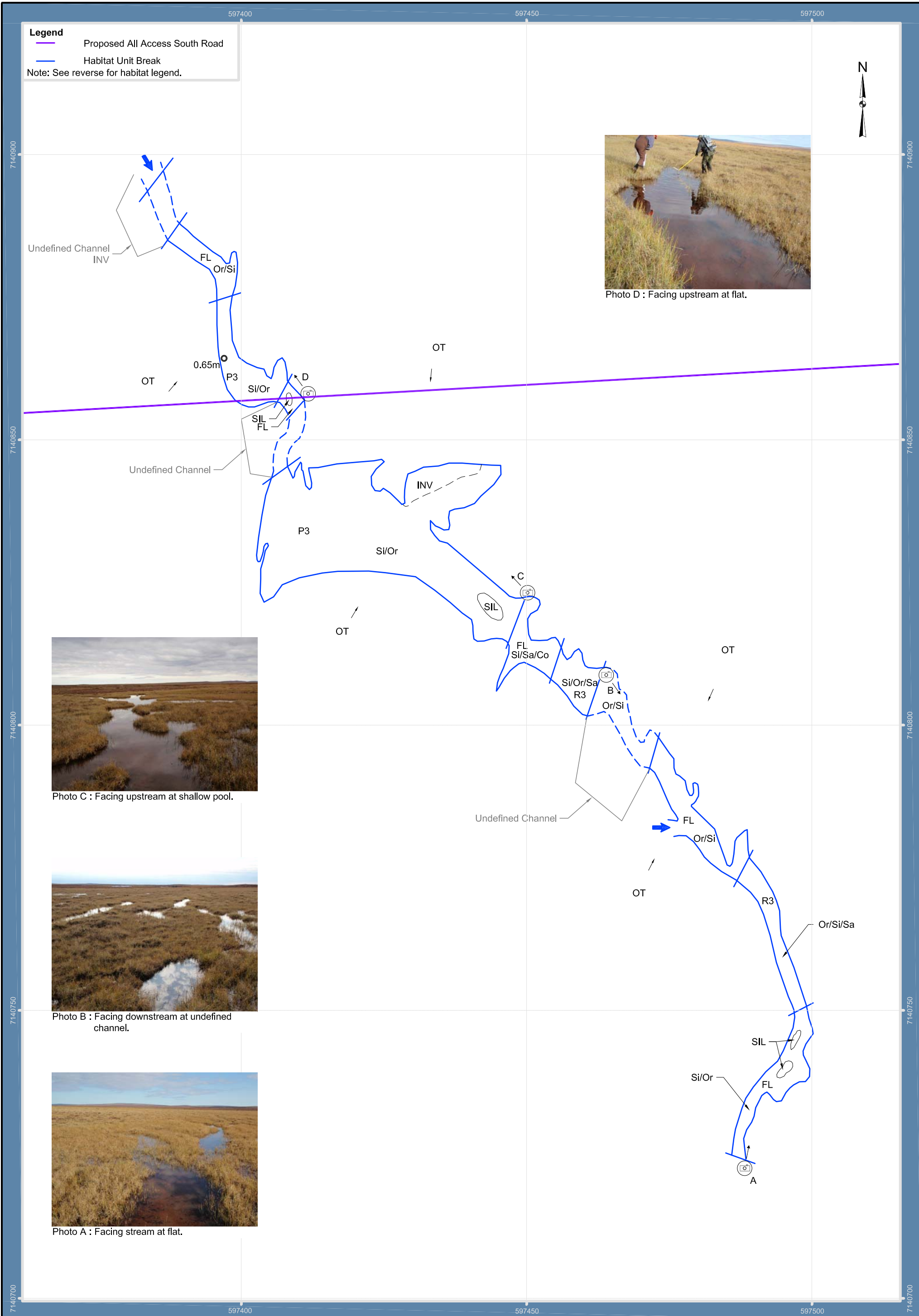
Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
Slow Water	Pool	FL	Flat
		P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Sl	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features	
XXXX	BD Beaver Dam
█	MD Man-Made Dam
🌿	BL Beaver Lodge
🍅	BG Boulder Garden
🌿🌿	Bridge
	Culvert
#	DP Debris Pile
EM	Emergent Vegetation
➡	Flow Direction
	ISC Instream Cover
IV	Instream Vegetation
INV	Inundated Vegetation
#	LWD Large Woody Debris
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LJ	Log Jam
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SIL	Singular Island
SWD	Small Woody Debris
SM	Submergent Vegetation
UCB	Undercut Bank
USB	Unstable Bank

Sample Type Symbols	
🟦	Water
🟤	Sediment
🟢	Benthic
🟡	Fish

General	
📍	Photo Location/Direction
/	Habitat Type Divider
🐟	Fish Bearing/Potential Bearing
----	Watercourse
+	Width
o	Depth

Bank/Upland Vegetation Types	
BA	Bare Ground
OT	Open Tundra
MU	Muskeg/Bog
DF	Deciduous Forest
CF	Coniferous Forest
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GS	Grassland
GF	Grass/Forbs
GF/SH	Grass/Forbs/Shrubs
SE	Sedge
SH	Shrubs
MO	Moss
OR	Organic

Bank Slope	
→	Shallow Slope (0-5%)
→→	Intermediate Slope (6-30%)
→→→	Steep Slope (31-70%)
→→→→	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

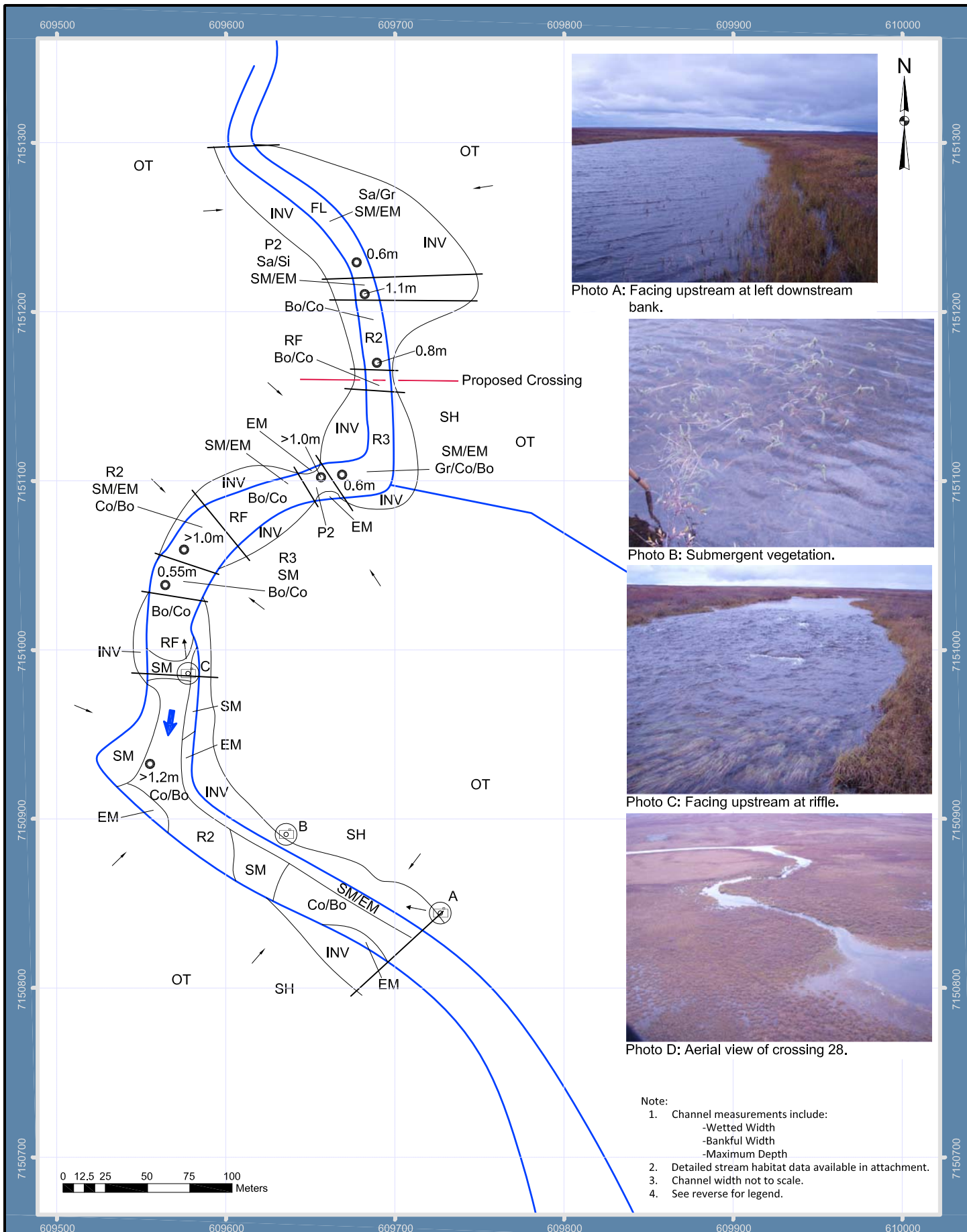
Capture Methods	
BP	Electrofishing - Backpack
EF	Electrofishing - Boat
IN	Gill Net
SN	Seine
FF	Fish Fence
MT	Minnow Trap
AN	Angling
HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
	Non-Turb.	RF/BG	Riffle/Boulder Garden
		R	Run (glide)
		R1	Run Class 1
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	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
Other Features		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
Average Wetted Width (m)
Average Bankful Width (m)
Average Depth (m)
Habitat Classification
Substrate Type

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N
 Creator: TAH
 Date: 07/02/11
 File: K108C110
 Data Sources: NTS Mapsheet 66A/7

Scale: 1:3,000

FIGURE X.VIII-89
 HABITAT MAP
 ALTERNATE CROSSING 28
 KIGGAVERK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
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	UCB	Undercut Bank
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Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullying

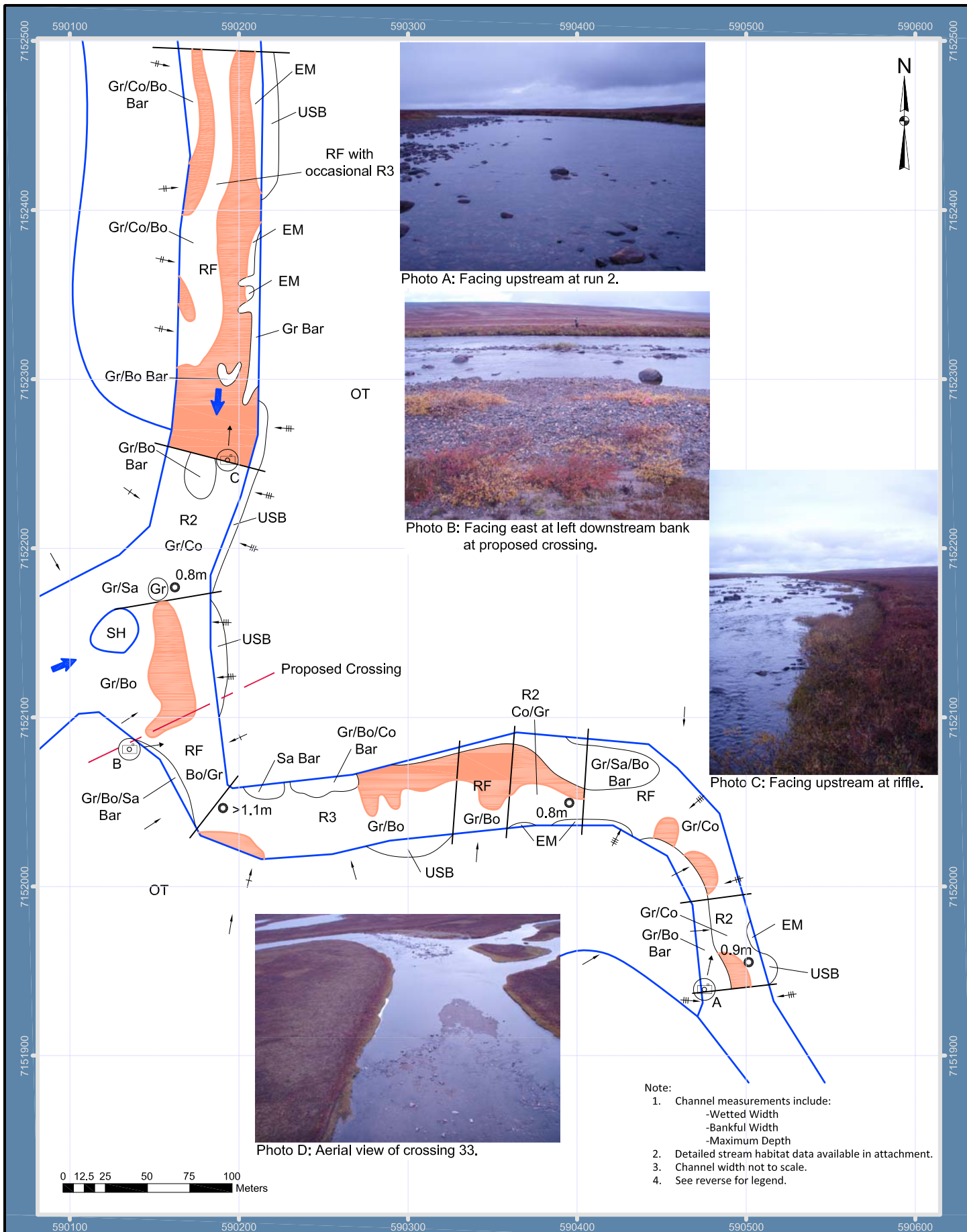
Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
		RF/BG	Riffle/Boulder Garden
Slow Water	Non-Turb.	R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
		FL	Flat
	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
Other Features	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
 Average Wetted Width (m)
 Average Bankful Width (m)
 Average Depth (m)
 Habitat Classification
 Substrate Type
 Fish Species

Notes:
m = metres



Projection: NAD 1983 UTM Zone 14N

Creator: TAH

Date: 08/02/11

File: K108C111

Data Sources: NTS Mapsheet 66A/6

Scale: 1:3,000

FIGURE X.VIII-90

HABITAT MAP
ALTERNATE CROSSING 33

KIGGAVIK PROJECT - EIS



Legend - Rivers and Streams

Substrate Types	
Cl	Clay
Si	Silt
Sa	Sand
Gr	Gravel
Co	Cobble
Bo	Boulder
Bd	Bedrock
Or	Organic

Habitat Features		
XXXX	BD	Beaver Dam
	MD	Man-Made Dam
	BL	Beaver Lodge
	BG	Boulder Garden
		Bridge
		Culvert
	DP	Debris Pile
	EM	Emergent Vegetation
		Flow Direction
	ISC	Instream Cover
	IV	Instream Vegetation
	INV	Inundated Vegetation
	LWD	Large Woody Debris
	LE	Ledge
	LJ	Log Jam
	LS	Landslide
	MIL	Multiple Island
	OHV	Overhanging Vegetation
	OHC	Overhead Cover
	RW	Root Wad
		Sand Bar
	SIL	Singular Island
	SWD	Small Woody Debris
	SM	Submergent Vegetation
	UCB	Undercut Bank
	USB	Unstable Bank

Sample Type Symbols		
		Water
		Sediment
		Benthic
		Fish

General	
	Photo Location/Direction
	Habitat Type Divider
	Fish Bearing/Potential Bearing Watercourse
	Width
	Depth

Bank/Upland Vegetation Types		
	BA	Bare Ground
	OT	Open Tundra
	MU	Muskeg/Bog
	DF	Deciduous Forest
	CF	Coniferous Forest
	MW	Mixedwood Forest
	GS	Grassland
	GF	Grass/Forbs
	GF/SH	Grass/Forbs/Shrubs
	SE	Sedge
	SH	Shrubs
	MO	Moss
	OR	Organic

Bank Slope	
	Shallow Slope (0-5%)
	Intermediate Slope (6-30%)
	Steep Slope (31-70%)
	Very Steep Slope (>70%)

Bank Instability Ratings	
A	Aggrading
E	Eroding
S	Slumping
G	Gullyng

Capture Methods		
	BP	Electrofishing - Backpack
	EF	Electrofishing - Boat
	GN	Gill Net
	SN	Seine
	FF	Fish Fence
	MT	Minnow Trap
	AN	Angling
	HN/TN	Hoop Net/Trap Net

Habitat Classification and Rating System			
Fast Water	Turb.	FA	Falls
		CA	Cascade
		CH	Chute
		RA	Rapids
		RF	Riffle
		RF/BG	Riffle/Boulder Garden
Slow Water	Non-Turb.	R	Run (glide)
		R1	Run Class 1
		R2	Run Class 2
		R3	Run Class 3
		FL	Flat
	Pool	P	Pool
		P1	Pool Class 1
		P2	Pool Class 2
		P3	Pool Class 3
Other Features	Impound (dammed pool)	IP	Impound
		IP1	Impound Class 1
		IP2	Impound Class 2
		IP3	Impound Class 3
		BW	Backwater
		SN	Snye
		BG	Boulder Garden
		SH	Shoal
		SL	Slough, Oxbows

Site Summary Symbol

River (R) or Stream (S)
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