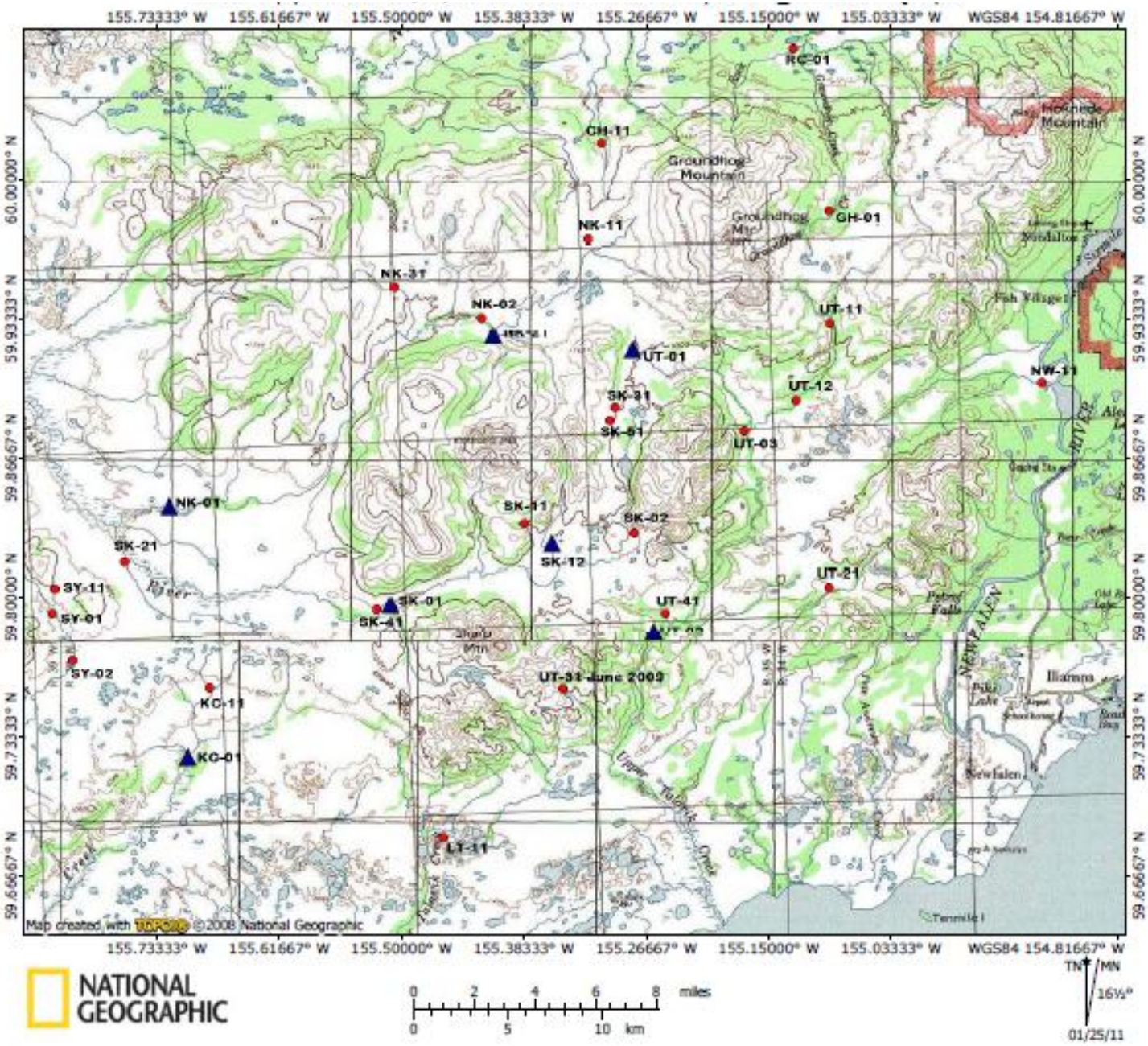
Appendix A

Sample site locations and photos

Region	Site	Descriptive	Rationale	5/09	6/09	6/10	PLP site	coordinates
South Fork Koktuli	SK-01	main stem	USGS gage station; historical water quality data available; benthic sampling upstream 2008	x	x		SK100B	59.79668N, -155.51553W
	SK-02	main stem	copper bioavailability site; facilitate benthic sampling			x		59.83046N, -155.277181W
	SK-11	tributary	expand coverage of tributaries	x				59.83521N, -155.38141W
	SK-12	tributary	historical water quality data available; benthics sampled 2008		x	x	SK124A	59.82547N, -155.35619W
	SK-21	tributary	expand coverage of tributaries; possible hydrologic connection with Kaskanak; benthics sampled 2008	x	x			59.81877N, -155.76349W
	SK-31	tributary	expand coverage of headwaters on ore deposit		x	x		59.89077N, -155.29523W
	SK-41	tributary	benthics interannual site			x		59.79788N, -155.51015W
	SK-51	tributary	sampled by fish crew, near main camp			x		59.88454, -155.29927
North Fork Koktuli	NK-01	main stem	USGS gage; historic water quality data available; drilling expected nearby soon	x	x	x	NK100A1	59.984037N, -155.71301W
	NK-02	main stem	copper bioavailability study site			x		59.93433N, -155.42281
	NK-11	tributary	expand coverage of headwaters	x	x	x		59.9717N, -155.32068W
	NK-21	tributary	historic water quality data available	x	x		NK119B	59.92602N, -155.41106W
	NK-31	tributary	expand coverage of headwaters		x			59.94896N, -155.50639W
Upper Talarik Creek	UT-01	main stem	historic water quality data available; sampled for fish 2008	x	x	x	UT100E	59.9182N, -155.27770W
	UT-02	main stem	USGS gage; historic water quality data available; benthics sampled 2008; copper bioavailability study site	x	x	x	UT100B	59.7853N, - 155.25462W
	UT-03	main stem	immediately downstream of where a long tributary enters; PLP gage			x		59.87925N, -155.17116W
	UT-11	tributary	expand coverage of headwaters; good location for monitoring if mining proceeds	x	x	x		59.93103N, -155.08926W
	UT-12	tributary	wetland environment, possibly carbon rich, near pond system			x		59.82429N, -155.12238W
	UT-21	tributary	expand coverage of headwaters		x			59.80526N, -155.09073W
	UT-31	tributary	expand coverage of headwaters		x			59.75567N, -155.34494W
	UT-41	tributary	water for this tributary is expected to be groundwater coming from South Fork Koktuli			x		59.79326N, -155.24615W

Region	Site	Descriptive	Rationale	5/09	6/09	6/10	PLP site	coordinates
Lower Talarik Creek	LT-11	tributary	expand coverage of important streams	x	x			59.68488N, -155.45863W
Kaskanak Creek	KC-01	main stem	possible hydrologic connection with South Fork Koktuli; historic water quality data available; drilling announced nearby 10/2009	x	x	x	KC100A	59.72369N, -155.70262W
	KC-11	tributary	expand coverage of tributaries; drilling announced nearby 10/2009		x			59.75638N, -155.68242W
Stuyahok River	SY-01	main stem	expand coverage of important streams; drilling announced nearby 10/2009		x			59.79281N, -155.83214W
	SY-02	main stem	potentially more likely to receive water from South Fork Koktuli than SY-01 if there is a connection between drainages			x		59.76953N, -155.81289W
	SY-11	tributary	expand coverage of tributaries; possible hydrologic connection with South Fork Koktuli	x	x			59.79884N, -155.83151W
Lake Clark Region	CH-11	tributary to Chulitna River	expand coverage of streams to Lake Clark National Park; limited historic water quality data	x	x	x		60.017N, -155.30782W
	GH-01	tributary to Rock Creek	expand coverage of streams to Lake Clark National Park		x			59.98456N, -155.09117W
	RC-01	Rock Creek; tributary to Lake Clark	expand coverage of streams to Lake Clark National Park		x			60.01682N, -155.12488W
	NW-11	tributary to Newhalen River	expand coverage of locally important rivers; possible hydrologic connection with Upper Talarik; benthics sampled 2008	x	x	x		59.90273N, -154.88974W



TNC water quality study sites. Sites labeled with triangles were intentionally co-located with historic Pebble Partnership water quality sampling sites. Mapped developed by K Zamzow, CSP2, using National Geographic TOPO! software.

SK-01 May 2009, upstream

SK-01 June 2009, upstream

SK-02, June 2010

SK-11 May 2009, upstream

SK-12 June 2009, aerials

SK-21 May 2009, downstream towards confluence with main stem South Fork Koktuli

SK-21 June 2009; approaching, downstream (confluence with main stem)

SK-31 June 2010

SK-41 June 2010 Looking north up the South Fork Koktuli valley; tributary with Site SK-41 is on the right.

SK-41 upstream, June 2010

SK-51, June 2010

NK-01 May 2009, upstream

NK-01 June 2009, upstream

NK-02 June 2010

NK-11 May 2009

NK-21 May 2009, downstream

NK-21 June 2009

NK-31 June 2009 (not sampled May 2009)

UT-01 May 2009, upstream

UT-01 June 2009, aerial

UT-02 (USGS gage) May 2009, upstream

UT-03 (sample site on sandbar), June 2010

UT-11 May 2009, upstream

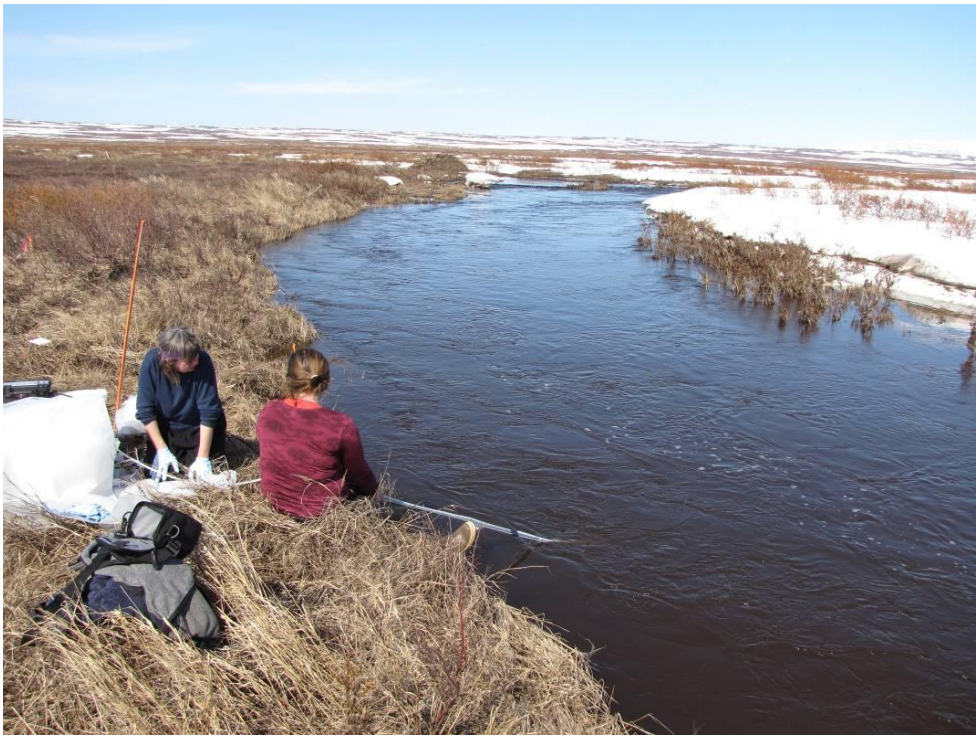
UT-11 June 2010

UT-12 June 2010, upstream

Upper Talarik wetlands June 2010 Site UT-12 is near the top of the picture

UT-41 June 2010

LT-11 May 2009 upstream



KC-01 May 2009 (upstream)

KC-01 June 2009 (upstream)

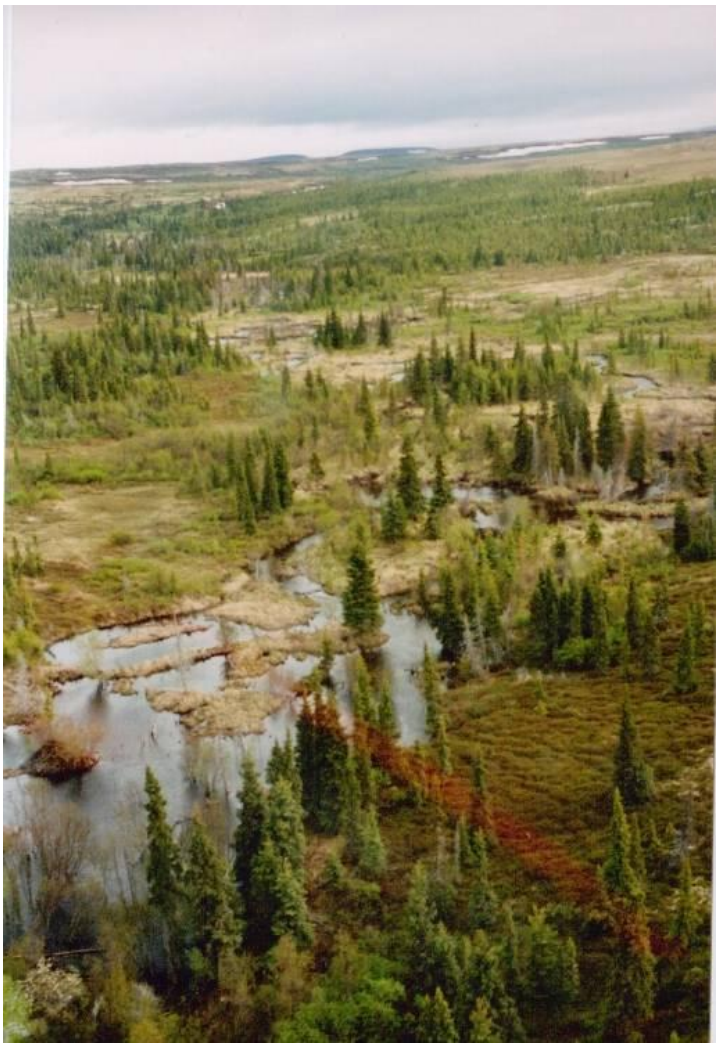
KC-11 June 2009, downstream (No May sample)

SY-02 June 2010

SY-11 May 2009, downstream

SY-11 June 2009, upstream

CH-11 May 2009, downstream



CH-11 June 2009,
aerial facing downstream

NW-11 May 2009, aerial

(missing photos for UT-21, UT-31, SY-01, GH-01, and RC-01, all sampled only in June 2009)