Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION:	Aimaokatalok River Ref	Survey Date (d/m/y):	26-Aug-10	Coordinates:	Coordinates:
SITE:	Aim. River REF OF	Survey Crew:	EG/TP	450363/7486701	450384/7486596
Survey Distance (m)	106			DS	US

Temperature (°C):		Transparency:	moderate
Channel Velocity (m/s):		Conductivity (uS/cm):	
Current Flow Conditions:	low	pH:	
Discharge estimate (m^3/s)			

Comments

Weather:

cool, overcast

Hab Unit No.	Hab Type	Dist. fr start (m)	Length (m)	Slope (%)	Depth (m)		Width (m)		Bed Material					Pool Info			Fish Passage Barriers	
															Depth (m)			
					Mean	Bank-full	Mean	Bank-full	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Type	Max	Crest	Type	T/P
1	G	0	106	0.5	0.30	1.50	3.0	9.5	0	10	10	80	0					
2																		
3																		
4																		
5																		
6																		
7																		
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18																		
19																		
20																		

Flow Conditions H = High flow, M = Medium flow, L = Low flow

Habitat Unit Under bankfull conditions: 0 - 2.5 m = > 1 m2, 2.5 - 5 m = > 2 m2, 5 - 10 m = > 4 m2, 10 -15 m = > 6 m2, 15 -20 = > 8 m2, > 20 m = > 10 m2

Hab Type P = pool, G = glide, R = riffle, C = cascade, UG = underground, BG = boulder garden

Dist. fr start distance from beginning of the survey to the beginning of the habitat unit being surveyed

Pool Type S = scour, D = dammed, U = unknown

Substrate Sand (< 2 mm), Gravel (2 - 64 mm), Cobble (64 - 256), Boulders (256 - 4000 mm), Bedrock (>4000 mm)

Fish Passage Barriers IF = Impassible waterfall

BF = Boulder Field, passage through the boulder arrangement is not possible for fish

D = dry channel, no stream flow

NC = no distinct channel, water drains over land

N = no barrier to fish passage through the habitat unit

T/P T = temporary, portion of open water season

P = Permanent, all year round

Overall Rating:

Spawning: _____

Rearing: _____

Adult Feeding: _____

Over-wintering: _____

Migration: _____

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: Aimaokatalok River **SITE:** Aim. River REF OF **DATE:** 26/08/2010 **CREW:** EG/TP

Hab Unit No.	Banks of Channel				Instream Cover							Photos #	Comments	Riparian Cover		
	L Bank Height (m)	R Bank Height (m)	L Bank Stab	R Bank Stab	Pool %	Boulder %	Instream Veg %	Overhang Veg %	Undercut Bank %	LWD %	SWD %			Canopy %	LB %	RB %
1	NA	NA	NA	NA	0	75	0	0	0	0	0	2665-2668	moving upstream	0	0	0
2																
3																
4																
5																
6																
7																
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19																
20																

Banks of Channel (Stability) H = highly stable, S = stable, U = unstable

Comments:

deep river, steep slopes, Electofished at site (narrow) only for 106 m
completed FHAP at same location (106m)
very large boulder, minimal gravel (some patches), moderate cobble but 80% large BO

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION:	Quarry 2	**Survey Date (d/m/y):**	18-Sep-10	**Coordinates:**	**Coordinates:**
SITE:	Q2	**Survey Crew:**	JG/LK		
Survey Distance (m)				center of quarry	

Temperature (°C):	2.6	**Transparency:**	clear
Channel Velocity (m/s):		**Conductivity (uS/cm):**	162.7
Current Flow Conditions:	no flow	**pH:**	8.88
Discharge estimate (m^3/s)			

Comments

broken tributary, poorly defined channel, poor overwintering, not sportfish habitat, moderate to poor cyprinid habitat

Weather:

overcast

Hab Unit No.	Hab Type	Dist. fr start (m)	Length (m)	Slope (%)	Depth (m)		Width (m)		Bed Material					Pool Info			Fish Passage Barriers	
					Mean	Bank-full	Mean	Bank-full	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Type	Depth (m) Max	Depth (m) Crest	Type	T/P
1	P	N/A bc	18	1.0					100	0	0	0	0	unknown	0.20	0.15	Dry	T
2	G	trib is	50	1.0	0.15	0.20			100	0	0	0	0				D	T
3	P	broken	43	1.0					100	0	0	0	0	unknown	0.20	0.15	D	T
4	P		25	1.0					100	0	0	0	0	unknown	0.20	0.15	D	T
5																		
6																		
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Flow Conditions H = High flow, M = Medium flow, L = Low flow

Habitat Unit Under bankfull conditions: 0 - 2.5 m = > 1 m2, 2.5 - 5 m = > 2 m2, 5 - 10 m = > 4 m2, 10 -15 m = > 6 m2, 15 -20 = > 8 m2, > 20 m = > 10 m2

Hab Type P = pool, G = glide, R = riffle, C = cascade, UG = underground, BG = boulder garden

Dist. fr start distance from beginning of the survey to the beginning of the habitat unit being surveyed

Pool Type S = scour, D = dammed, U = unknown

Substrate Sand (< 2 mm), Gravel (2 - 64 mm), Cobble (64 - 256), Boulders (256 - 4000 mm), Bedrock (>4000 mm)

Fish Passage Barriers IF = Impassible waterfall

BF = Boulder Field, passage through the boulder arrangement is not possible for fish

D = dry channel, no stream flow

NC = no distinct channel, water drains over land

N = no barrier to fish passage through the habitat unit

T/P T = temporary, portion of open water season

P = Permanent, all year round

Overall Rating:

Spawning: unknown

Rearing: unknown

Adult Feeding: moderate/poor

Over-wintering: poor

Migration: poor

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: Quarry 2 **SITE:** Q2 **DATE:** 18/09/2010 **CREW:** JG/LK

Hab Unit No.	Banks of Channel				Instream Cover							Photos #	Comments	Riparian Cover		
	L Bank Height (m)	R Bank Height (m)	L Bank Stab	R Bank Stab	Pool %	Boulder %	Instream Veg %	Overhang Veg %	Undercut Bank %	LWD %	SWD %			Canopy %	LB %	RB %
1	0.05	0.05	S	S	100	0	10	0	0	0	0	138	10-20 cm depth/significant fines			
2	0.05	0.05	S	S	0	0	30	0	0	0	0	139	poor defined channel			
3	0.05	0.05	S	S	100	0	10	0	0	0	0	140				
4	0.05	0.05	S	S	100	0	10	0	0	0	0	141	10-20cm water/50 cm fines/permafrost			
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19																
20																

Banks of Channel (Stability) H = highly stable, S = stable, U = unstable

Comments:

permafrost ~ 0.6-0.8m from water surface

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: Quarry 3.5 km south of Patch Lake
SITE: Q4
Survey Distance (m)

Survey Date (d/m/y): 19-Sep-10
Survey Crew: JG/BG

Coordinates: 435575E/7543451 downstream start point
Coordinates:

Temperature (°C): 1.5
Channel Velocity (m/s):
Current Flow Conditions: low
Discharge estimate (m^3/s)

Transparency: clear
Conductivity (uS/cm): 151.5
pH: 7.72

Comments: no overwintering, 0.5 thick organic layer, shallow water < 0.2m

Weather: slight overcast/scattered precipitation/slight wind ~ 10km/h

Hab Unit No.	Hab Type	Dist. fr start (m)	Length (m)	Slope (%)	Depth (m)		Width (m)		Bed Material					Pool Info			Fish Passage Barriers	
					Mean	Bank-full	Mean	Bank-full	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Type	Depth (m) Max	Depth (m) Crest	Type	T/P
1	P	0	30	1.5			2.0	27.0	100	0	0	0	0	S	0.25	0.15	N	T
2	G	30	70	1.5	0.60	0.15	0.8	13.0	100	0	0	0	0				N	T
3																		
4	o	0	100	0.0	0.60	unknown			60	20	15	5	0				N	T
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20																		

Flow Conditions H = High flow, M = Medium flow, L = Low flow

Habitat Unit Under bankfull conditions: 0 - 2.5 m = > 1 m2, 2.5 - 5 m = > 2 m2, 5 - 10 m = > 4 m2, 10 -15 m = > 6 m2, 15 -20 = > 8 m2, > 20 m = > 10 m2

Hab Type P = pool, G = glide, R = riffle, C = cascade, UG = underground, BG = boulder garden

Dist. fr start distance from beginning of the survey to the beginning of the habitat unit being surveyed

Pool Type S = scour, D = dammed, U = unknown

Substrate Sand (< 2 mm), Gravel (2 - 64 mm), Cobble (64 - 256), Boulders (256 - 4000 mm), Bedrock (>4000 mm)

Fish Passage Barriers IF = Impassible waterfall
BF = Boulder Field, passage through the boulder arrangement is not possible for fish
D = dry channel, no stream flow
NC = no distinct channel, water drains over land
N = no barrier to fish passage through the habitat unit

T/P T = temporary, portion of open water season
P = Permanent, all year round

Overall Rating:

Spawning: maybe

Rearing: good

Adult Feeding: good cyprinids

Over-wintering: none

Migration: in spring

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: _____ **SITE:** Q4 **DATE:** _____ **CREW:** _____

Hab Unit No.	Banks of Channel				Instream Cover							Photos #	Comments	Riparian Cover		
	L Bank Height (m)	R Bank Height (m)	L Bank Stab	R Bank Stab	Pool %	Boulder %	Instream Veg %	Overhang Veg %	Undercut Bank %	LWD %	SWD %			Canopy %	LB %	RB %
1	0.10	0.10	S	S	100	0	15	0	0	0	0	162	GPS Q4P1	0	100	100
2	0.15	0.15	S	S	0	0	0	0	0	0	0	161	GPS Q4G1	0	100	100
3																
4	1.50	1.50	H	H	100	5	10	25	80	0	0	163	GPS: Q4L1	5		
5																
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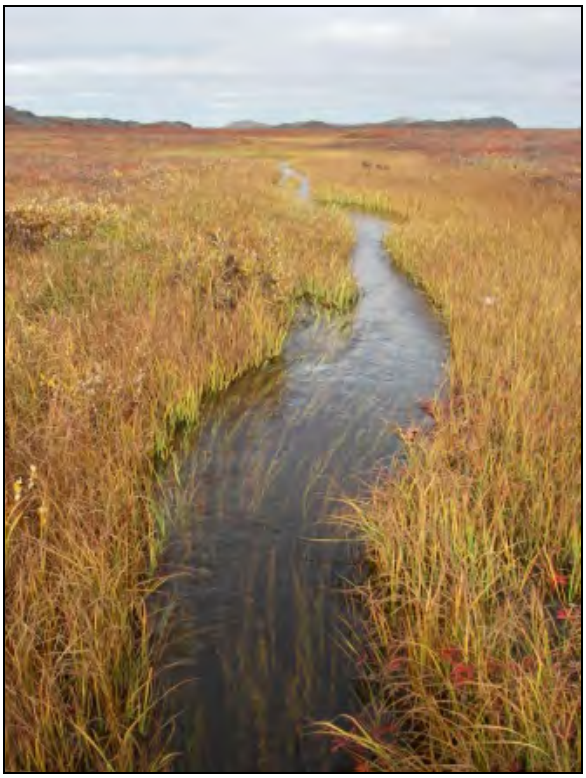
18																
19																
20																

Banks of Channel (Stability) H = highly stable, S = stable, U = unstable

Comments:

Q4L1: large lake (> 10ha). Might need investigation for sportfish. Slightly turbid water
sand base substrate
unknown depth, but it could over winter fish if depth is > 2m.
Large stickleback relative to adjacent stream Q4G1 and pool Q4P1 in Q4
water quality: 4.8 degrees C/ 365 uS/ 8.2 pH
might be permanent barrier is < 2m in max depth

Data Entered ☐ **QA/QC** ☐



Q4

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: Quarry ~ 15km south of Patch L
SITE: Q5
Survey Distance (m)

Survey Date (d/m/y): 19-Sep-10
Survey Crew: JG/BG

Coordinates: 434689E/7533733N
Coordinates:

see back for water quality
Temperature (°C):
Channel Velocity (m/s):
Current Flow Conditions:
Discharge estimate (m^3/s)

Transparency:
Conductivity (uS/cm):
pH:

Comments
good cyprinid habitat, sand/clay base substrate, might need investigation for sp

Weather:
overcast/scattered precip/15km/h N winds

Hab Unit No.	Hab Type	Dist. fr start (m)	Length (m)	Slope (%)	Depth (m)		Width (m)		Bed Material					Pool Info			Fish Passage Barriers	
					Mean	Bank-full	Mean	Bank-full	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Type	Depth (m) Max	Depth (m) Crest	Type	T/P
1	Lake	0	100	0.0	0.60	unknown	unknown	unknown	95	0	5	0	0				N	P
2																		
3	Lake	0	100	0.0	0.10		unknown	unknown	100	0	0	0	0				N	P
4																		
5	Lake	0	100	0.0	>1		unknown	unknown	100	0	0	0	0				N	P
6																		
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20																		

Flow Conditions H = High flow, M = Medium flow, L = Low flow

Habitat Unit Under bankfull conditions: 0 - 2.5 m = > 1 m2, 2.5 - 5 m = > 2 m2, 5 - 10 m = > 4 m2, 10 -15 m = > 6 m2, 15 -20 = > 8 m2, > 20 m = > 10 m2

Hab Type P = pool, G = glide, R = riffle, C = cascade, UG = underground, BG = boulder garden

Dist. fr start distance from beginning of the survey to the beginning of the habitat unit being surveyed

Pool Type S = scour, D = dammed, U = unknown

Substrate Sand (< 2 mm), Gravel (2 - 64 mm), Cobble (64 - 256), Boulders (256 - 4000 mm), Bedrock (>4000 mm)

Fish Passage Barriers IF = Impassible waterfall
BF = Boulder Field, passage through the boulder arrangement is not possible for fish
D = dry channel, no stream flow
NC = no distinct channel, water drains over land
N = no barrier to fish passage through the habitat unit

T/P T = temporary, portion of open water season
P = Permanent, all year round

Overall Rating:

Spawning: good

Rearing: good

Adult Feeding: good

Over-wintering: good if >2m depth

Migration: good if connected but good within lakes

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: Quarry 5 **SITE:** Q5 **DATE:** 19/09/2010 **CREW:** JG/BG

Hab Unit No.	Banks of Channel				Instream Cover							Photos #	Comments	Riparian Cover		
	L Bank Height (m)	R Bank Height (m)	L Bank Stab	R Bank Stab	Pool %	Boulder %	Instream Veg %	Overhang Veg %	Undercut Bank %	LWD %	SWD %			Canopy %	LB %	RB %
1	2.00	2.00	H	H	100	5	5	5	0.3	0	0	164	GPS # Q5L1	5	50	50
2																
3	0.20	2.00	S	H	100	0	10	0	0	0	0	166	GPS# Q5L2	0	100	100
4																
5	0.20	0.50	U	U	100	0	15	0	0	0	0	167	GPS # Q5L3	0	100	100
6																
7																
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18																
19																
20																

Banks of Channel (Stability) H = highly stable, S = stable, U = unstable

Comments:

Q5L1 *lots of bedrock shoreline > 75%, steep shoreline, turbid due to wind and N/S aspect.*
overhanging willow and instream woody debris
water quality: 4.4 degrees C, ph=8.04, 138.2uS

Q5L2 *mats of vegetation on west shoreline, ~ 60% bedrock shoreline (NW and west shoreline)*
water quality: 5.3 degrees C, 8.24 pH, 287uS

Q5L3 *floating mats of veg, steep shoreline, 100 % silt and fines*
water quality: 147 uS, 4.9 degrees C, 8.5pH

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: Quarry 6 | Survey Date (d/m/y): 20-Sep-10 | Coordinates: | Coordinates:

SITE: Q6 | Survey Crew: JG/BG

Survey Distance (m) 100/lake

Temperature (°C):

Channel Velocity (m/s):

Current Flow Conditions: no flow

Discharge estimate (m^3/s)

Transparency: clear

Conductivity (uS/cm):

pH:

Comments: thick organic substrate ~0.5m thick, thick decomposed pieces of veg lying along shoreline

Weather: overcast/no wind/ ice precip

Hab Unit No.	Hab Type	Dist. fr start (m)	Length (m)	Slope (%)	Depth (m)		Width (m)		Bed Material					Pool Info			Fish Passage Barriers	
					Mean	Bank-full	Mean	Bank-full	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Type	Depth (m) Max	Depth (m) Crest	Type	T/P
1	Lake	0	100	0.0	1.20	1.50	60.0	80.0	100	0	0	0	0	D	1.50	0.75	N	P
2																		
3	Lake	0	100	0.0	0.40	3.00	unknown	unknown	15	70	10	5	0	unknown	unknown	unknown	N	P
4																		
5																		
6																		
7																		
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18																		
19																		
20																		

Flow Conditions H = High flow, M = Medium flow, L = Low flow

Habitat Unit Under bankfull conditions: 0 - 2.5 m = > 1 m2, 2.5 - 5 m = > 2 m2, 5 - 10 m = > 4 m2, 10 -15 m = > 6 m2, 15 -20 = > 8 m2, > 20 m = > 10 m2

Hab Type P = pool, G = glide, R = riffle, C = cascade, UG = underground, BG = boulder garden

Dist. fr start distance from beginning of the survey to the beginning of the habitat unit being surveyed

Pool Type S = scour, D = dammed, U = unknown

Substrate Sand (< 2 mm), Gravel (2 - 64 mm), Cobble (64 - 256), Boulders (256 - 4000 mm), Bedrock (>4000 mm)

Fish Passage Barriers IF = Impassible waterfall

BF = Boulder Field, passage through the boulder arrangement is not possible for fish

D = dry channel, no stream flow

NC = no distinct channel, water drains over land

N = no barrier to fish passage through the habitat unit

T/P T = temporary, portion of open water season

P = Permanent, all year round

Overall Rating:

Spawning: ok

but no spawning substrate

Rearing: good

Adult Feeding: good

Over-wintering: poor unless > 2m

Migration: good in spring/arly summer

Data Entered ☐ QA/QC ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: Quarry 6 **SITE:** Q6 **DATE:** 20/09/2010 **CREW:** JG/BG

Hab Unit No.	Banks of Channel				Instream Cover							Photos #	Comments	Riparian Cover		
	L Bank Height (m)	R Bank Height (m)	L Bank Stab	R Bank Stab	Pool %	Boulder %	Instream Veg %	Overhang Veg %	Undercut Bank %	LWD %	SWD %			Canopy %	LB %	RB %
1	0.25	0.25	S	S	100	0	15	0	0	0	0	168	GPS Q6L1	0	100	100
2																
3	3.00	3.00	S	S	90	10	0	0	0	0	0	169	GPS Q6L2	0	100	100
4																
5																
6																
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18																
19																
20																

Banks of Channel (Stability) H = highly stable, S = stable, U = unstable

Comments:

Q6L1 *soft substrate 100% silt. No flowing water at either end*
GPS 436927E/7527809N
water Q: cond 183.8, water 1.7 degrees C, 8.41 pH

Q6L2 *water Q: cond 248, temp 4.6 degrees C, 8.28 pH*
firm substrate with silt and sand, gravel and rock habitat
relatively poor cover except for some rock areas, clear water
GPS 437756E/752726N (GPS Q6L2)

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION:	Quarry 8	Survey Date (d/m/y):	20-Sep-10	Coordinates:	Coordinates:
SITE:	Q8L1	Survey Crew:	JB/BG	438435E/7521155N	
Survey Distance (m)					

Temperature (°C):	4.3	Transparency:	turbid
Channel Velocity (m/s):	N/A	Conductivity (uS/cm):	196.7
Current Flow Conditions:	N/A	pH:	8.28
Discharge estimate (m^3/s)	N/A		

Comments

Weather:

overcast, scattered clouds, light wind ~ 5-10 km/h

Hab Unit No.	Hab Type	Dist. fr start (m)	Length (m)	Slope (%)	Depth (m)		Width (m)		Bed Material					Pool Info			Fish Passage Barriers	
					Mean	Bank-full	Mean	Bank-full	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Type	Depth (m) Max	Depth (m) Crest	Type	T/P
1	Lake	0	100	0.0	unknown	unknown	unknown	unknown	100	0	0	0	0	unknown	unknown	0.8	N	P
2																		
3																		
4																		
5																		
6																		
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19																		
20																		

Flow Conditions H = High flow, M = Medium flow, L = Low flow

Habitat Unit Under bankfull conditions: 0 - 2.5 m = > 1 m2, 2.5 - 5 m = > 2 m2, 5 - 10 m = > 4 m2, 10 -15 m = > 6 m2, 15 -20 = > 8 m2, > 20 m = > 10 m2

Hab Type P = pool, G = glide, R = riffle, C = cascade, UG = underground, BG = boulder garden

Dist. fr start distance from beginning of the survey to the beginning of the habitat unit being surveyed

Pool Type S = scour, D = dammed, U = unknown

Substrate Sand (< 2 mm), Gravel (2 - 64 mm), Cobble (64 - 256), Boulders (256 - 4000 mm), Bedrock (>4000 mm)

Fish Passage Barriers IF = Impassible waterfall

BF = Boulder Field, passage through the boulder arrangement is not possible for fish

D = dry channel, no stream flow

NC = no distinct channel, water drains over land

N = no barrier to fish passage through the habitat unit

T/P T = temporary, portion of open water season

P = Permanent, all year round

Overall Rating:

Spawning: good

Rearing: good

Adult Feeding: good

Over-wintering: good if depth > 2m

Migration: good in spring/early summer

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: _____ **SITE:** Q8 **DATE:** 20/09/2010 **CREW:** JG/BG _____

Hab Unit No.	Banks of Channel				Instream Cover							Photos #	Comments	Riparian Cover		
	L Bank Height (m)	R Bank Height (m)	L Bank Stab	R Bank Stab	Pool %	Boulder %	Instream Veg %	Overhang Veg %	Undercut Bank %	LWD %	SWD %			Canopy %	LB %	RB %
1	0.15	0.15	U	U	100	0	15	5	0	0	5	173	GPS: Q8L1	5		
2																
3																
4																
5																
6																
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16																
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18																
19																
20																

Banks of Channel (Stability) H = highly stable, S = stable, U = unstable

Comments:

Q8L1 *floating mats of veg around perimeted of shoreline, steep drop-off*
small woody debris around perimeter of shoreline
one large adult (72mm) NSSB captured along with med to small specimens
no flowing tribs present on shoreline

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION:	Aimaokatalok Lake North	Survey Date (d/m/y):	20-Sep-10	Coordinates:	Coordinates:
SITE:	Q9- Quarry 9	Survey Crew:	JG/BG	see comments section	
Survey Distance (m)	100/site				

see comments section			Comments
Temperature (°C):		Transparency:	no migration therefore no fish @pools. Spring fed pools
Channel Velocity (m/s):		Conductivity (uS/cm):	
Current Flow Conditions:		pH:	Weather:
Discharge estimate (m^3/s)			overcast, light wind 15 km/h west

Hab Unit No.	Hab Type	Dist. fr start (m)	Length (m)	Slope (%)	Depth (m)		Width (m)		Bed Material					Pool Info			Fish Passage Barriers	
					Mean	Bank-full	Mean	Bank-full	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Type	Depth (m) Max	Depth (m) Crest	Type	T/P
1	P	0	100	0.0			15.0	20.0	100	0	0	0	0	unknown	0.30	0.1	N	P
2																		
3	P	0	100	0.0			50.0	55.0	89	0	10	1	0	unknown	unknown	0.8	N	P
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		

Flow Conditions H = High flow, M = Medium flow, L = Low flow

Habitat Unit Under bankfull conditions: 0 - 2.5 m = > 1 m2, 2.5 - 5 m = > 2 m2, 5 - 10 m = > 4 m2, 10 -15 m = > 6 m2, 15 -20 = > 8 m2, > 20 m = > 10 m2

Hab Type P = pool, G = glide, R = riffle, C = cascade, UG = underground, BG = boulder garden

Dist. fr start distance from beginning of the survey to the beginning of the habitat unit being surveyed

Pool Type S = scour, D = dammed, U = unknown

Substrate Sand (< 2 mm), Gravel (2 - 64 mm), Cobble (64 - 256), Boulders (256 - 4000 mm), Bedrock (>4000 mm)

Fish Passage Barriers IF = Impassible waterfall

BF = Boulder Field, passage through the boulder arrangement is not possible for fish

D = dry channel, no stream flow

NC = no distinct channel, water drains over land

N = no barrier to fish passage through the habitat unit

T/P T = temporary, portion of open water season

P = Permanent, all year round

Overall Rating:

Spawning: poor

Rearing: poor

Adult Feeding: good

Over-wintering: poor

Migration: poor outside of pool too steep to Aimaokatalok Lake

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: North of Spyder Lake **SITE:** Q9 **DATE:** 20/09/2010 **CREW:** JG/BG

Hab Unit No.	Banks of Channel				Instream Cover							Photos #	Comments	Riparian Cover		
	L Bank Height (m)	R Bank Height (m)	L Bank Stab	R Bank Stab	Pool %	Boulder %	Instream Veg %	Overhang Veg %	Undercut Bank %	LWD %	SWD %			Canopy %	LB %	RB %
1	0.15	0.15	S	S	100	0	0	0	0	0	0	177/176	GPS: Q9P1	0	100	100
2																
3	0.40	0.40	S	S	100	5	5	5	0	0	0	178/179	GPS: Q9P2	0	100	100
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																

Banks of Channel (Stability) H = highly stable, S = stable, U = unstable

Comments:

Q9P1 *439947E/7515663N* *spring fed, fish migration barriers from Spyder*
No fish present due to migration barriers of gradient and overland terrian resistance (small berms??)
easily too shallow for overwintering

Q9P2 *439755E/7512654N* *clear pond/pool with relatively firm substrate*
pool is isolated with no permanent flow either in or out
no fish present due to isolation and max depth < 2m

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION:	Quarry 10	Survey Date (d/m/y):	23-Sep-10	Coordinates:	Coordinates:
SITE:	Q10	Survey Crew:	JG/SL		
Survey Distance (m)	100				

Temperature (°C):		Transparency:	
Channel Velocity (m/s):		Conductivity (uS/cm):	
Current Flow Conditions:		pH:	
Discharge estimate (m^3/s)			

Comments

Weather:

overcast/scattered precip/no wind <5km/h, -1 degree C

Hab Unit No.	Hab Type	Dist. fr start (m)	Length (m)	Slope (%)	Depth (m)		Width (m)		Bed Material					Pool Info			Fish Passage Barriers	
					Mean	Bank-full	Mean	Bank-full	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Type	Depth (m) Max	Depth (m) Crest	Type	T/P
1	lake	0	100	0.0	0.50	0.80	NA	NA	65	5	10	15	0					
2	G	0	9	1.0	0.50	1.75	2.5	11.0	100	0	0	0	0				N	T
3	P	9	16	1.0	2.50	2.75	6.0	15.0	100	0	0	0	0	S	2.50	1.25	N	P
4	G	25	6	2.0	0.35	0.55	1	15	100	0	0	0	0				N	T
5	P	3131	11	1.0			8	16	100	0	0	0	0	S	2.00	1	N	T
6	R	42	14	5.0	0.20	0.40	0.75	12	100	0	0	0	0				N	T
7	P	56	14	1.0			7	12	100	0	0	0	0	S	2.5	1.25	N	P
8	G	70	5	2.0	0.25	0.50	1.5	3	100	0	0	0	0				N	T
9	P	75	15	1			12	13	100	0	0	0	0	S	3.5	1.75	N	P
10	G	90	14	3	0.2	0.4	1	3	100	0	0	0	0				N	T
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		

Flow Conditions H = High flow, M = Medium flow, L = Low flow

Habitat Unit Under bankfull conditions: 0 - 2.5 m = > 1 m2, 2.5 - 5 m = > 2 m2, 5 - 10 m = > 4 m2, 10 -15 m = > 6 m2, 15 -20 = > 8 m2, > 20 m = > 10 m2

Hab Type P = pool, G = glide, R = riffle, C = cascade, UG = underground, BG = boulder garden

Dist. fr start distance from beginning of the survey to the beginning of the habitat unit being surveyed

Pool Type S = scour, D = dammed, U = unknown

Substrate Sand (< 2 mm), Gravel (2 - 64 mm), Cobble (64 - 256), Boulders (256 - 4000 mm), Bedrock (>4000 mm)

Fish Passage Barriers IF = Impassible waterfall

BF = Boulder Field, passage through the boulder arrangement is not possible for fish

D = dry channel, no stream flow

NC = no distinct channel, water drains over land

N = no barrier to fish passage through the habitat unit

T/P T = temporary, portion of open water season

P = Permanent, all year round

Overall Rating:

Spawning: _____

Rearing: _____

Adult Feeding: _____

Over-wintering: _____

Migration: _____

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: Quarry 10 **SITE:** Q10 **DATE:** 23/09/2010 **CREW:** JG/SL

Hab Unit No.	Banks of Channel				Instream Cover							Photos #	Comments	Riparian Cover		
	L Bank Height (m)	R Bank Height (m)	L Bank Stab	R Bank Stab	Pool %	Boulder %	Instream Veg %	Overhang Veg %	Undercut Bank %	LWD %	SWD %			Canopy %	LB %	RB %
1	0.30		S		0	15	0	5	80	0	5	258	see below	0	95	NA
2	0.20	0.25	100	100	0	0	95	0	50	0	0	260		0	100	100
3	0.20	0.25	100	100	0	0	80	0	2	0	0	261		0	100	100
4	0.20	0.20	100	100	0	0	30	0	0	0	0	262		0	100	100
5	0.30	0.40	100	100	100	0	85	0	0	0	0	262		0	100	100
6	0.20	0.30	H	H	0	0	80	0	0	0	0	263		0	100	100
7	0.25	0.40	100	100	100	0	75	0	0	0	0	264		0	100	100
8	0.25	0.30	100	H	0	0	80	0	0	0	0	265		0	100	100
9	0.10	0.25	100	H	100	0	70	0	0	0	0	265		0	100	100
10	0.20	0.10	100	H	0	0	70	0	0	0	0	266		0	100	100
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																

Banks of Channel (Stability) H = highly stable, S = stable, U = unstable

Comments:

Q10L1=water Q9=8.02 ph, 2.2 degrees C water temp, 144.5 uS, clear water/ multiple habitat units/firm substrate

good spawning, rearing, migration and overwinter if max depth > 2m
GPS 444260E, 7507273N

shocked

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: Quarry 11	Survey Date (d/m/y): 23-Sep-10	Coordinates:	Coordinates:		
SITE: Q11	Survey Crew: JG/SL	see comments			
Survey Distance (m) 100m					
Temperature (°C):	Transparency:	Comments			
Channel Velocity (m/s):	Conductivity (uS/cm):				
Current Flow Conditions:	pH:	Weather:			
Discharge estimate (m^3/s)		100% cloud cover, scattered breeze NW (10-15km/hr), light snow			

Hab Unit No.	Hab Type	Dist. fr start (m)	Length (m)	Slope (%)	Depth (m)		Width (m)		Bed Material					Pool Info			Fish Passage Barriers	
					Mean	Bank-full	Mean	Bank-full	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Type	Depth (m) Max	Depth (m) Crest	Type	T/P
1	Q11-Lake 1	0	100	0.0	0.50	0.75	na	na	99	1	0	0	0				N	unknown (prob T)
2	Q11-Lake 2	0	100	0.0	0.50	0.90	na	na	100	0	0	0	0				N	unknown (prob T)
3	Q11-Lake 3	0	100	0.0	0.40	0.80	na	na	95	0	0	2	3				N	unknown (prob T)
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		

Flow Conditions H = High flow, M = Medium flow, L = Low flow

Habitat Unit Under bankfull conditions: 0 - 2.5 m = > 1 m2, 2.5 - 5 m = > 2 m2, 5 - 10 m = > 4 m2, 10 -15 m = > 6 m2, 15 -20 = > 8 m2, > 20 m = > 10 m2

Hab Type P = pool, G = glide, R = riffle, C = cascade, UG = underground, BG = boulder garden

Dist. fr start distance from beginning of the survey to the beginning of the habitat unit being surveyed

Pool Type S = scour, D = dammed, U = unknown

Substrate Sand (< 2 mm), Gravel (2 - 64 mm), Cobble (64 - 256), Boulders (256 - 4000 mm), Bedrock (>4000 mm)

Fish Passage Barriers IF = Impassible waterfall

BF = Boulder Field, passage through the boulder arrangement is not possible for fish

D = dry channel, no stream flow

NC = no distinct channel, water drains over land

N = no barrier to fish passage through the habitat unit

T/P T = temporary, portion of open water season

P = Permanent, all year round

Overall Rating:

Spawning: _____

Rearing: _____

Adult Feeding: _____

Over-wintering: _____

Migration: _____

Data Entered ☐ **QA/QC** ☐

Hope Bay Belt Project - Fish Habitat Stream Survey Form

LOCATION: Quarry 11 **SITE:** Q11 **DATE:** 23/09/2010 **CREW:** JG/SL

Hab Unit No.	Banks of Channel				Instream Cover							Photos #	Comments	Riparian Cover		
	Bank Height (m)	R Bank Height (m)	Bank Stab	R Bank Stab	Pool %	Boulder %	Instream Veg %	Overhang Veg %	Undercut Bank %	LWD %	SWD %			Canopy %	LB %	RB %
1	0.30		H		100	0	5	2	2	0	2	267	see below	0	100	
2	0.40		U		100	0	5	2	2	0	15	268	see below	0	100	
3	0.40		D		100	0	1	0	2	0	0	269	see below	0	90	
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																

Banks of Channel (Stability) H = highly stable, S = stable, U = unstable

Comments:

Q11-L1 *441541E/7501848N, water=1.3 degrees C, 320 uS, ph=8.64, no fish*
appears shallow, possible winterkills, mats of veg within shoreline, sand substrate 2m from shorelin within water, clear water, stable shoreline,
zooplankton present, good migration throughout habitat, good adult feeding, good rearing

Q11-L2 *441881E/7502165N, water= 2.9 degrees C, 277 uS, ph=8.18, no fish*
appears shallow, possible winterkill, vegetation in shoreline forming organic mat. Zooplankton present
clay dominatnt substrate, good migration/good adult feeding

Q11-L3 *552248E/7501035N, water=1.6 degrees C, 235uS, pH=8.53, no fish*
appears shallow, possible winterkill, no veg present within habitat unit. Water is light tannin colour
substrate has iron oxides, few zooplankton observed
good migration throughout habitat, medium quality for adult feeding
poor rearing due to lack of cover within littoral zone

Data Entered ☐ **QA/QC** ☐

Appendix 3.1-4

SHIM Data for Stream Segments Assessed in the Doris and Boston Areas, Hope Bay Belt Project, 2010

Rescan™
Engineers and Scientists

Appendix 3.1-4. SHIM Data for Stream Segments Assessed in the Doris and Boston Areas, Hope Bay Belt Project, 2010

Stream ID	Shape *	Stream Name	Organizati	Date_	Time_	Crew	Seg_Number	Stage	Channel_Morph	Comment_Class	Gradient (%)	Crown_Clos	Spawning_H	Over_Winte	Rearing_Ha	Overall_Ha	Potential_	Bars	Comt_SChar	Wetted Width	Bankfull Width	Wetted Depth
61	Polyline	N15	Hope_Bay_2010	08/09/2010	07:14:05am	KE RD	1	low	Wetland		1	0	None	None	None	None	None	None		4	same	0.1
62	Polyline	N15	Hope_Bay_2010	08/09/2010	05:19:25am	KE RD	1	moderate	Riffle/Pool		1	0	Good	Good	Good	Important	Abundant	None		14	same	0.5
63	Polyline	N15	Hope_Bay_2010	08/09/2010	05:05:02am	KE RD	2	moderate	Wetland	wetland pool	1	0	Good	Fair	Good	Important	Moderate	None		20	same	0.5
64	Polyline	N15	Hope_Bay_2010	08/09/2010	02:50:42am	KE RD	3	moderate	Riffle/Pool		1	0	Good	Good	Good	Important	Abundant	None		3	same	0.3
58	Polyline	N20	Hope_Bay_2010	12/09/2010	02:44:15am	KE RD	1	low	Wetland		1	0	None	None	None	None	None	None		1	same	0.1
51	Polyline	N21	Hope_Bay_2010	10/09/2010	08:41:27am	KE RD	4	low	Riffle		1	0	None	None	Poor	Marginal	Micropatches	None		0.3	same	0.2
52	Polyline	N21	Hope_Bay_2010	10/09/2010	08:21:59am	KE RD	5	low	Wetland		1	0	None	None	None	Marginal	Micropatches	None		1	same	0.1
53	Polyline	N21	Hope_Bay_2010	10/09/2010	07:46:55am	KE RD	5	moderate	Wetland		1	0	Poor	None	Poor	Marginal	Micropatches	None		1.2	same	0.25
54	Polyline	N21	Hope_Bay_2010	10/09/2010	07:13:50am	KE RD	4	moderate	Riffle		1	0	Fair	None	Good	Marginal	Abundant	None		1.2	same	0.25
55	Polyline	N21	Hope_Bay_2010	10/09/2010	07:02:23am	KE RD	3	moderate	Wetland		1	0	Poor	None	Fair	Marginal	Moderate	None		0.75	same	0.2
56	Polyline	N21	Hope_Bay_2010	10/09/2010	06:40:48am	KE RD	2	moderate	Riffle/Pool		1	0	Fair	Poor	Good	Important	Moderate	None		1	same	0.5
57	Polyline	N21	Hope_Bay_2010	10/09/2010	06:22:17am	KE RD	1	moderate	Riffle		1	0	Fair	None	Good	Important	Micropatches	None		0.75	same	0.25
42	Polyline	N22	Hope_Bay_2010	12/09/2010	01:48:36am	KE RD	1	low	Cascade		5	0	None	None	Poor	Marginal	Micropatches	None		0.45	same	0.15
43	Polyline	N22	Hope_Bay_2010	12/09/2010	01:56:57am	KE RD	2	low	Wetland		3	0	Poor	None	Poor	Marginal	Micropatches	None		1	same	0.15
44	Polyline	N22	Hope_Bay_2010	12/09/2010	02:03:48am	KE RD	3	low	Wetland		3	0	None	None	None	None	Micropatches	None		0.4	same	0.15
45	Polyline	N22	Hope_Bay_2010	12/09/2010	02:12:14am	KE RD	4	low	Wetland		3	0	None	None	None	None	None	None		0.4	same	0.15
46	Polyline	N23	Hope_Bay_2010	11/09/2010	07:55:26am	KE RD	5	moderate	Riffle		3	0	None	None	Poor	Marginal	Micropatches	None		0.55	same	0.25
47	Polyline	N23	Hope_Bay_2010	11/09/2010	08:03:48am	KE RD	6	low	Wetland		1	0	None	None	None	None	Micropatches	None	NCD v low quality	3	same	0.1
48	Polyline	N23	Hope_Bay_2010	11/09/2010	06:50:20am	KE RD	1	moderate	Riffle		3	0	Poor	None	Fair	Marginal	Moderate	None		1.2	same	0.25
49	Polyline	N23	Hope_Bay_2010	11/09/2010	06:37:27am	KE RD	2	low	Riffle		1	0	None	None	Poor	Marginal	Micropatches	None		2	same	0.1
50	Polyline	N23	Hope_Bay_2010	11/09/2010	06:20:41am	KE RD	3	low	Riffle		1	0	Fair	None	Fair	Marginal	Moderate	None		0.6	same	0.15
59	Polyline	N24	Hope_Bay_2010	08/09/2010	08:28:42am	KE RD	1	moderate	Wetland		4	0	None	None	None	None	None	None		3.5	same	0.15
60	Polyline	N24	Hope_Bay_2010	08/09/2010	08:37:57am	KE RD	2	low	Wetland		1	0	None	None	None	None	None	None		3	same	0.15
65	Polyline	N25	Hope_Bay_2010	09/09/2010	07:43:43am	KE RD	1	low	Wetland		1	0	None	None	None	None	Micropatches	None	fish bearing	1	same	0.1
66	Polyline	N25	Hope_Bay_2010	09/09/2010	07:59:06am	KE RD	2	low	Pool		1	0	None	None	Poor	Marginal	Micropatches	None	fish bearing	20	same	0.25
67	Polyline	N25	Hope_Bay_2010	09/09/2010	08:09:21am	KE RD	3	low	Wetland		1	0	Poor	None	Poor	Marginal	Micropatches	None	fish bearing	2	same	0.25
68	Polyline	N25	Hope_Bay_2010	09/09/2010	08:21:51am	KE RD	4	low	Wetland		1	0	None	None	None	None	None	None	fish bearing	1	same	0.1
24	Polyline	S21	Hope_Bay_2010	07/09/2010	01:40:17am	KE RD	1	low	Wetland		1	0	None	None	None	None	None	None		1	same	0.05
21	Polyline	S22	Hope_Bay_2010	06/09/2010	07:49:53am	KE RD	1	moderate	Riffle		1	0	Fair	None	Fair	Marginal	Moderate	None		0.75	same	0.15
22	Polyline	S22	Hope_Bay_2010	06/09/2010	08:09:54am	KE RD	3	low	Wetland		1	0	None	None	None	None	None	None		1	same	0.05
23	Polyline	S22	Hope_Bay_2010	06/09/2010	07:59:51am	KE RD	2	moderate	Wetland		1	0	None	None	Fair	Marginal	Micropatches	None	fish bearing	20	same	0.1
0	Polyline	S24	Hope_Bay_2010	05/09/2010	07:40:48am	KE RD	1	moderate	Run		1	0	Fair	None	Good	Important	Abundant	None		3.5	same	0.3
1	Polyline	S24	Hope_Bay_2010	05/09/2010	07:53:26am	KE RD	2	moderate	Riffle/Pool		1	0	Good	Good	Good	Important	Abundant	None		3	same	0.5
2	Polyline	S24	Hope_Bay_2010	05/09/2010	08:11:11am	KE RD	3	moderate	Riffle/Pool		1	0	Good	Good	Good	Important	Abundant	None		2	same	0.5
3	Polyline	S24	Hope_Bay_2010	05/09/2010	08:17:35am	KE RD	4	moderate	Riffle/Pool		1	0	Good	Fair	Good	Important	Abundant	None		4	same	0.75
4	Polyline	S24	Hope_Bay_2010	06/09/2010	01:14:09am	KE RD	5	moderate	Riffle		3	0	Fair	None	Fair	Important	Micropatches	None		0.8	same	0.4
5	Polyline	S24	Hope_Bay_2010	06/09/2010	01:21:30am	KE RD	6	moderate	Riffle		2	0	Poor	None	Fair	Important	Micropatches	None		0.6	same	0.35
6	Polyline	S24	Hope_Bay_2010	06/09/2010	01:26:20am	KE RD	7	moderate	Riffle/Pool		1	0	Poor	Poor	Good	Important	Moderate	None		2	same	0.4
7	Polyline	S24	Hope_Bay_2010	06/09/2010	01:32:09am	KE RD	10	moderate	Riffle		1	0	Poor	None	Fair	Marginal	Micropatches	None		0.45	same	0.2
8	Polyline	S24	Hope_Bay_2010	06/09/2010	01:42:29am	KE RD	8	low	Riffle		1	0	Poor	None	Poor	Marginal	Micropatches	None		1	same	0.2
9	Polyline	S24	Hope_Bay_2010	06/09/2010	01:55:52am	KE RD	9	moderate	Riffle		1	0	Good	None	Good	Important	Abundant	None		20	same	0.1
20	Polyline	S24	Hope_Bay_2010	06/09/2010	05:38:31am	KE RD	4	low	Wetland		1	0	None	None	None	Marginal	Micropatches	None	flooded weland	1	same	0.05
35	Polyline	S27	Hope_Bay_2010	05/09/2010	05:54:59am	KE RD	7	moderate			0	0								0	0	0
36	Polyline	S27	Hope_Bay_2010	05/09/2010	06:02:04am	KE RD	6	moderate	Wetland		1	0	None	None	None	None	Micropatches	None		0.3	10	0.2
37	Polyline	S27	Hope_Bay_2010	05/09/2010	02:56:36am	KE RD	5	moderate	Riffle/Pool		1	0	Fair	Fair	Good	Important	Moderate	None		2	2	0.5
38	Polyline	S27	Hope_Bay_2010	05/09/2010	02:10:39am	KE RD	4	moderate	Riffle/Pool	flooded wetland	1	0	Fair	Poor	Good	Important	Moderate	None		2	2	1
39	Polyline	S27	Hope_Bay_2010	05/09/2010	02:00:53am	KE RD	3	moderate	Riffle/Pool	flooded wetland	1	0	Poor	None	Poor	Marginal	Micropatches	None		15	15	0.15
40	Polyline	S27	Hope_Bay_2010	05/09/2010	01:25:31am	KE RD	2	moderate	Riffle/Pool		2	0	Good	Good	Good	Important	Abundant	None		3	3	1
41	Polyline	S27	Hope_Bay_2010	05/09/2010	01:15:24am	KE RD	1	moderate	Riffle/Pool		1	0	Good	Fair	Good	Important	Abundant	None		5	5	0.3
69	Polyline	S27	Hope_Bay_2010	05/09/2010	05:40:04am	KE RD	1	moderate	Riffle/Pool		0	0								0	0	0
70	Polyline	S27	Hope_Bay_2010	05/09/2010	05:22:22am	KE RD	1	moderate	Riffle/Pool		0	0								0	0	0
29	Polyline	S31	Hope_Bay_2010	05/09/2010	11:18:24am	KE RD	5	low	Riffle/Pool	braided some overland flow	1	0	None	None	Poor	Marginal	None	None		2	same	0.1
30	Polyline	S31	Hope_Bay_2010	05/09/2010	11:08:58am	KE RD	6	low	Riffle/Pool	straight channel run	1	0	None	None	Poor	Marginal	Micropatches	None		0.5	same	0.1
31	Polyline	S31	Hope_Bay_2010	05/09/2010	11:02:17am	KE RD	4	low	Riffle/Pool	straight channel run	1	0	None	None	Poor	Marginal	Micropatches	None		0.5	same	0.1
32	Polyline	S31	Hope_Bay_2010	05/09/2010	10:54:06am	KE RD	3	low	Riffle/Pool	flooded wetland and ponds	1	0	Poor	None	Poor	Marginal	Micropatches	None		3	same	0.1
33	Polyline	S31	Hope_Bay_2010	05/09/2010	10:31:54am	KE RD	2	low	Riffle/Pool		1	0	Poor	None	Poor	Marginal	Micropatches	None		2	same	0.15
34	Polyline	S31	Hope_Bay_2010	05/09/2010	09:54:16am	KE RD	1	low	Riffle/Pool		1	0	None	None	Poor	Marginal	Micropatches	None	heavy veg small channel stream	0.5	same	0.1
10	Polyline	S32	Hope_Bay_2010	06/09/2010	03:14:45am	KE RD	1	low	NCD		0	0								0	same	0
11	Polyline	S33	Hope_Bay_2010	06/09/2010	03:37:33am	KE RD	1	moderate	Riffle		3	0	Poor	None	Poor	Marginal	Micropatches	None		0.4	same	0.15
12	Polyline	S33	Hope_Bay_2010	06/09/2010	03:44:46am	KE RD	2	moderate	Wetland		1	0	Fair	None	Fair	Marginal	Micropatches	None	fish bearing flooded weland	20	same	0.2
13	Polyline	S33	Hope_Bay_2010	06/09/2010	03:55:53am	KE RD	3	moderate	Wetland		1	0	Poor	None	Poor	Marginal	Micropatches	None	fish bearing flooded weland	2	same	0.1
14	Polyline	S33	Hope_Bay_2010	06/09/2010	04:06:09am	KE RD	4	moderate	Wetland		1	0	Poor	None	Poor	Marginal	Micropatches	None	fish bearing flooded weland	15	same	0.1
15	Polyline	S33	Hope_Bay_2010	06/09/2010	04:45:16am	KE RD	5	low	Wetland		1	0	None	None	Poor	Marginal	Micropatches	None	fish bearing flooded weland	1	same	0.1
16	Polyline	S33	Hope_Bay_2010	06/09/2010	04:51:53am	KE RD	6	low	Wetland		1	0	None	None	None	None	Micropatches	None	flooded weland	1	same	0.1
17	Polyline	S34	Hope_Bay_2010	06/09/2010	05:10:06am	KE RD	3	moderate	Wetland		1	0	Poor	None	Poor	Marginal	Micropatches	None	flooded weland	1	same	0.15
18	Polyline	S34	Hope_Bay_2010	06/09/2010	05:16:51am	KE RD	2	flood	Wetland		1	0	Poor	None	Poor	Marginal	Micropatches	None	flooded weland	25	same	0.1
19	Polyline	S34	Hope_Bay_2010	06/09/2010	05:28:12am	KE RD	1	moderate	Wetland		1	0	Poor	None	Poor	Marginal	Micropatches	None	flooded weland	8	same	0.1
26	Polyline	S35	Hope_Bay_2010	07/09/2010	03:19:25am	KE RD	1	moderate	Wetland		3	0	None	None	Poor	None	Micropatches	None	fishh bearing	10	same	0.2
27	Polyline	S35	Hope_Bay_2010	07/09/2010	03:35:17am	KE RD	2	moderate	Wetland		1	0	None	None	Poor	None	Micropatches	None	fishh bearing	3	same	0.1
28	Polyline	S35	Hope_Bay_2010	07/09/2010	03:41:10am	KE RD	3	low	Wetland		1	0	None	None	Poor	None	Micropatches	None		3	same	0.1

Appendix 3.1-4. SHIM Data for Stream Segments Assessed in the Doris and Boston Areas, Hope Bay Belt Project, 2010

Stream ID	Bankfull Depth	Comt_Chan	Sub_Org	Sub_Fines	Sub_Gravel	Sub_Cobble	Sub_Blder	Sub_BedRk	RipClass	Comment	Riffle	Pool	Run	Casade	Boulder_Ga	Total_Cover	B	DP	IV	OV	UC	Wetland	Comments
61	same		100	0	0	0	0	0	Natural wetland	100 wetland hyd type	0	0	0	0	0	100	0	0	100	0	0	100	
62	same		100	0	0	0	0	0	Natural wetland		60	40	0	0	0	90	0	10	80	0	0	0	
63	same		100	0	0	0	0	0	Natural wetland	70 wetland hyd type	0	30	0	0	0	85	0	15	70	0	0	70	
64	same		100	0	0	0	0	0	Natural wetland		80	20	0	0	0	100	0	20	80	0	0	0	
58	same		100	0	0	0	0	0	Natural wetland	100 wetland hyd tyype	0	0	0	0	0	100	0	0	100	0	0	100	
51	same		100	0	0	0	0	0	Natural wetland		100	0	0	0	0	100	0	0	100	0	0	0	
52	same	flooded wetland	100	0	0	0	0	0	Natural wetland	100 wetland hyd type	0	0	0	0	0	100	0	0	100	0	0	100	
53	same		100	0	0	0	0	0	Natural wetland	100 wetland hyd type	0	0	0	0	0	100	0	0	100	0	0	100	
54	same		100	0	0	0	0	0	Natural wetland		95	5	0	0	0	100	0	5	95	0	0	0	
55	same		100	0	0	0	0	0	Natural wetland	100 wetland hyd type	0	0	0	0	0	100	0	0	100	0	0	100	
56	same		100	0	0	0	0	0	Natural wetland		80	20	0	0	0	100	0	20	80	0	0	0	
57	same		100	0	0	0	0	0	Natural wetland		100	0	0	0	0	100	0	0	100	0	0	0	
42	same		60	40	0	0	0	0	Natural wetland		50	0	0	50	0	75	0	0	75	0	0	0	
43	same		45	40	5	5	5	0	Natural wetland	50 wetland hyd tyype	50	0	0	0	0	80	0	0	75	5	0	50	
44	same		90	5	0	0	5	0	Natural wetland	100 wetland hyd tyype	0	0	0	0	0	100	0	0	100	0	0	100	
45	same		100	0	0	0	5	0	Natural wetland	100 wetland hyd tyype	0	0	0	0	0	100	0	0	100	0	0	100	
46	same		95	0	0	0	5	0	Natural wetland	discontinous flow to pond downstream	100	0	0	0	0	100	0	0	100	0	0	0	
47	same		100	0	0	0	0	0	Natural wetland	100 wetland hyd type	0	0	0	0	0	100	0	0	100	0	0	100	
48	same		100	0	0	0	0	0	Natural wetland		100	0	0	0	0	100	0	0	100	0	0	0	
49	same		100	0	0	0	0	0	Natural wetland	100 wetland hyd type	0	0	0	0	0	100	0	0	100	0	0	100	
50	same		100	0	0	0	0	0	Natural wetland		100	0	0	0	0	100	0	0	100	0	0	0	
59	same		100	0	0	0	0	0	Natural wetland		100	0	0	0	0	100	0	0	100	0	0	0	
60	same		100	0	0	0	0	0	Natural wetland	100 weland hyd type	0	0	0	0	0	100	0	0	100	0	0	100	
65	same		100	0	0	0	0	0	Natural wetland	100 wetland	0	0	0	0	0	90	0	0	100	0	0	100	
66	same		100	0	0	0	0	0	Natural wetland	100 wetland	0	0	0	0	0	90	0	0	100	0	0	100	
67	same		100	0	0	0	0	0	Natural wetland	100 wetland	0	0	0	0	0	100	0	0	100	0	0	100	
68	same		100	0	0	0	0	0	Natural wetland	100 wetland	0	0	0	0	0	100	0	0	100	0	0	100	
24	same		100	0	0	0	0	0	Natural wetland	flooded and wet wetland	0	0	0	0	0	80	0	0	80	0	0	80	
21	same		80	15	5	0	0	0	Natural wetland		100	0	0	0	0	80	0	0	80	0	0	0	
22	same		100	0	0	0	0	0	Natural wetland		0	0	0	0	0	60	10	0	50	0	0	0	NCD
23	same		100	0	0	0	0	0	Natural wetland		0	0	0	0	0	80	0	0	80	0	0	0	
0	same		80	20	0	0	0	0	Natural wetland		0	0	100	0	0	30	0	0	30	0	0	0	
1	same		60	40	0	0	0	0	Natural wetland		40	60	0	0	0	80	0	40	40	0	0	0	
2	same		60	40	0	0	0	0	Natural wetland		30	70	0	0	0	90	0	30	60	0	0	0	
3	same		45	45	0	10	0	0	Natural wetland		30	70	0	0	0	80	10	35	35	0	0	0	
4	same		0	20	0	60	20	0	Natural wetland		100	0	0	0	0	40	20	0	20	0	0	0	
5	same		0	10	0	30	60	0	Natural wetland		100	0	0	0	0	70	60	0	10	0	0	0	
6	same		50	40	0	5	5	0	Natural wetland		80	20	0	0	0	55	5	20	30	0	0	0	
7	same		45	45	0	0	10	0	Natural wetland		100	0	0	0	0	70	60	0	10	0	0	0	
8	same		10	0	0	0	90	0			0	0	0	0	100	90	90	0	0	0	0	0	
9	same		90	10	0	0	0	0			100	0	0	0	0	100	0	0	100	0	0	0	
20	same		90	0	0	0	10	0	Natural wetland	100 percent flooded wetland	0	0	0	0	0	20	0	0	20	0	0	100	
35	same		0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	NCD ignore all descriptions
36	same		100	0	0	0	0	0	Natural wetland		0	0	100	0	0	100	0	0	100	0	0	0	
37	same		100	0	0	0	0	0	Natural wetland		0	30	70	0	0	70	0	20	50	0	0	0	
38	same		100	0	0	0	0	0	Natural wetland		0	60	40	0	0	100	0	30	70	0	0	0	
39	same		100	0	0	0	0	0	Natural wetland		0	10	90	0	0	100	0	10	90	0	0	0	
40	same		100	0	0	0	0	0	Natural wetland		0	75	25	0	0	100	0	40	60	0	0	0	
41	same		100	0	0	0	0	0	Natural wetland		0	30	70	0	0	90	0	10	80	0	0	0	
69	same		0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	NCD
70	same		0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	NCD
29	same		100	0	0	0	0	0	Natural wetland		0	0	100	0	0	100	0	0	0	0	0	0	
30	same		80	0	5	5	10	0	Natural wetland		0	0	100	0	0	100	0	0	0	0	0	0	
31	same		100	0	0	0	0	0	Natural wetland		0	0	100	0	0	100	0	0	0	0	0	0	
32	same	braided	100	0	0	0	0	0	Natural wetland		0	0	100	0	0	100	0	0	0	0	0	0	
33	same		100	0	0	0	0	0	Natural wetland		0	20	80	0	0	100	0	0	0	0	0	0	
34	same		100	0	0	0	0	0	Natural wetland		0	10	90	0	0	10	0	0	0	0	0	0	
10	same		0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	NCD wetland seepage delete all info on this seg
11	same		100	0	0	0	0	0	Natural wetland		100	0	0	0	0	70	0	0	100	0	0	0	
12	same		100	0	0	0	0	0	Natural wetland		0	0	0	0	0	50	0	0	50	0	0	0	
13	same		95	0	0	0	5	0	Natural wetland		95	0	0	0	5	80	5	0	75	0	0	0	
14	same		100	0	0	0	0	0	Natural wetland	100 percent flooded wetland	0	0	0	0	0	70	0	0	70	0	0	100	
15	same		100	0	0	0	0	0	Natural wetland	100 percent flooded wetland	0	0	0	0	0	70	0	0	70	0	0	100	
16	same		50	0	0	25	25	0	Natural wetland	100 percent flooded wetland	0	0	0	0	0	50	25	0	25	0	0	100	
17	same		90	0	0	0	10	0	Natural wetland	100 percent flooded wetland	0	0	0	0	0	90	10	0	80	0	0	100	
18	same		90	0	0	0	10	0	Natural wetland	100 percent flooded wetland	0	0	0	0	0	90	10	0	80	0	0	100	
19	same		60	0	0	20	20	0	Natural wetland	100 percent flooded wetland	0	0	0	0	0	80	20	0	60	0	0	100	
26	same		100	0	0	0	0	0	Natural wetland	100 wetland	0	0	0	0	0	100	0	0	100	0	0	100	
27	same		100	0	0	0	0	0	Natural wetland	100 wetland	0	0	0	0	0	100	0	0	100	0	0	100	
28	same		100	0	0	0	0	0	Natural wetland	100 wetland	0	0	0	0	0	100	0	0	100	0	0	100	

Appendix 3.1-5

SHIM Data for Pond Segments Assessed in the Doris and Boston Areas, Hope Bay Belt Project, 2010

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Appendix 3.1-5. SHIM Data for Pond Segments Assessed in the Doris and Boston Areas, Hope Bay Belt Project, 2010

Pond ID	Stream Name	Shape *	Date	Mean Depth (m)	Mean Length (m)	Mean Width (m)	Mean Area (m^2)	Substrate	Total_Cove	Boulder_Co	Deep_Pool	Vegetation	Habitat_Va	Habitat_Us	Habitat_U2	Habitat_U3	Fish_Beari	Comments
7	N15	Point	08/09/2010	1.5	17	9	153	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	
8	N15	Point	08/09/2010	2	27	17	459	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	
9	N15	Point	08/09/2010	1	15	17	255	Organic	100	0	20	80	Important	Over-Winter	Spawning	Rearing	Yes	
10	N15	Point	08/09/2010	1	15	15	225	Organic	100	0	20	80	Important	Over-Winter	Spawning	Rearing	Yes	
11	N15	Point	08/09/2010	1.5	13	11	143	Organic	85	0	35	50	Important	Over-Winter	Spawning	Rearing	Yes	
12	N15	Point	08/09/2010	2	25	24	600	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	
13	N15	Point	08/09/2010	1.5	17	22	374	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	
14	N15	Point	08/09/2010	2	11	15	165	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	
15	N15	Point	08/09/2010	1	15	12	180	Organic	80	0	20	60	Important	Over-Winter	Spawning	Rearing	Yes	
16	N15	Point	08/09/2010	0.3	20	15	300	Organic	100	0	0	10	Important	None	Spawning	Rearing	Yes	
17	N15	Point	08/09/2010	1	6	6	36	Organic	100	0	30	70	Important	None	Spawning	Rearing	Yes	
18	N15	Point	08/09/2010	0.8	21	14	294	Organic	100	0	15	85	Important	None	Spawning	Rearing	Yes	
19	N15	Point	08/09/2010	2	40	21	840	Organic	100	0	35	65	Important	Over-Winter	Spawning	Rearing	Yes	hundreds of juv stickleback observed
20	N15	Point	08/09/2010	1	20	18	360	Organic	90	0	10	80	Important	None	Spawning	Rearing	Yes	
21	N15	Point	08/09/2010	1.5	14	13	182	Organic	90	0	35	65	Important	Over-Winter	Spawning	Rearing	Yes	
22	N15	Point	08/09/2010	1	24	17	408	Organic	90	0	10	80	Important	None	Spawning	Rearing	Yes	
23	N15	Point	08/09/2010	1	13	13	169	Organic	90	0	10	80	Important	None	Spawning	Rearing	Yes	
24	N15	Point	08/09/2010	0.5	15	11	165	Organic	100	0	0	100	Important	None	Spawning	Rearing	Yes	
25	N15	Point	08/09/2010	0.75	12	12	144	Organic	100	0	0	100	Important	None	Spawning	Rearing	Yes	
33	N20	Point	12/09/2010	0.75	50	17	850	Organic	30	10	0	20	Marginal	None	None	None	No	
27	N21	Point	10/09/2010	1.1	3	2	6	Organic	80	0	30	50	Important	Spawning	Rearing		Yes	
28	N21	Point	10/09/2010	1.5	21	2.5	53	Organic	100	0	80	20	Important	Spawning	Rearing	Over-Winter	Yes	
29	N21	Point	10/09/2010	1	127	50	6,350	Organic	40	0	20	20	Marginal	Spawning	Rearing	None	Yes	
30	N21	Point	10/09/2010	1	124	42	5,208	Organic	50	0	20	30	Marginal	Spawning	Rearing	None	Yes	
31	N21	Point	10/09/2010	0.5	49	49	2,401	Organic	10	0	0	10	Marginal	Rearing	None	None	Unknown	
32	N23	Point	11/09/2010	0.2	50	50	2,500	Organic	80	0	0	80	Marginal	Rearing			Unknown	no fish observed
26	N25	Point	09/09/2010	0.3	60	40	2,400	Organic	90	0	0	90	Marginal	Rearing	None	None	Yes	
0	S24	Point	06/09/2010	0.5	2.5	7	18	Organic	55	5	20	30	Important	None	Spawning	Rearing	Yes	
1	S24	Point	06/09/2010	1.1	8	3	24	Organic	20	0	20	0	Important	None	Spawning	Rearing	Yes	
2	S24	Point	06/09/2010	1.1	10	7	70	Organic	80	0	40	40	Important	Over-Winter	Spawning	Rearing	Yes	
60	S24	Point	05/09/2010	1.5	9	5	45	Organic	100	0	80	20	Important	Over-Winter	Spawning	Rearing	Yes	80 deep pond cover lots of fish
61	S24	Point	05/09/2010	1	9	6	54	Organic	100	0	60	40	Important	Over-Winter	Spawning	Rearing	Yes	60 deep pond cover lots of fish
62	S24	Point	05/09/2010	1	11	11	121	Organic	100	0	30	70	Important	Over-Winter	Spawning	Rearing	Yes	30 deep pond cover lots of fish
63	S24	Point	05/09/2010	0.5	13	8	104	Organic	100	0	20	80	Important	None	Spawning	Rearing	Yes	20 deep pond cover lots of fish
64	S24	Point	05/09/2010	0.5	9	5	45	Organic	70	0	10	60	Important	None	Spawning	Rearing	Yes	10 deep pond cover lots of fish
65	S24	Point	05/09/2010	1	16	15	240	Organic	80	0	20	60	Important	Over-Winter	Spawning	Rearing	Yes	20 deep pond cover lots of fish
66	S24	Point	05/09/2010	2	15	13	195	Organic	100	0	60	40	Important	Over-Winter	Spawning	Rearing	Yes	60 deep pond cover lots of fish
67	S24	Point	05/09/2010	1	27	39	1,053	Organic	40	0	10	30	Important	None	Spawning	Rearing	Yes	10 deep pond cover
68	S24	Point	05/09/2010	0.5	14	10	140	Organic	20	0	0	20	Marginal	None	Spawning	Rearing	Yes	side channel stag pond
34	S27	Point	05/09/2010	2	6	5	30	Organic	100	0	30	70	Important	Over-Winter	Spawning	Rearing	Yes	30 deep pool cover
35	S27	Point	05/09/2010	2	10	4	40	Organic	100	0	30	70	Important	Over-Winter	Spawning	Rearing	Yes	30 deep pool cover
36	S27	Point	05/09/2010	2	4	3	12	Organic	100	0	30	70	Important	Over-Winter	Spawning	Rearing	Yes	30 deep pool cover
37	S27	Point	05/09/2010	2	12	4	48	Organic	100	0	30	70	Important	Over-Winter	Spawning	Rearing	Yes	30 deep pool cover
38	S27	Point	05/09/2010	1	6	6	36	Organic	100	0	30	70	Important	Over-Winter	Spawning	Rearing	Yes	30 deep pool cover
39	S27	Point	05/09/2010	2.5	8	5	40	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	50 deep pool cover
40	S27	Point	05/09/2010	2	7	5	35	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	50 deep pool cover
41	S27	Point	05/09/2010	2.5	13	10	130	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	50 deep pool cover
42	S27	Point	05/09/2010	2.5	15	12	180	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	50 deep pool cover
43	S27	Point	05/09/2010	2.5	11	8	88	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	50 deep pool cover
44	S27	Point	05/09/2010	2	17	5	85	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	50 deep pool cover
45	S27	Point	05/09/2010	2	7	6	42	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	50 deep pool cover
46	S27	Point	05/09/2010	1	18	15	270	Organic	60	0	30	30	Important		Spawning	Rearing	Yes	30 deep pool cover
47	S27	Point	05/09/2010	2	15	12	180	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	50 deep pool cover
48	S27	Point	05/09/2010	2	9	9	81	Organic	100	0	40	60	Important	Over-Winter	Spawning	Rearing	Yes	40 deep pool cover
49	S27	Point	05/09/2010	2	6	5	30	Organic	100	0	40	60	Important	Over-Winter	Spawning	Rearing	Yes	40 deep pool cover
50	S27	Point	05/09/2010	2	4	2	8	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	50 deep pool cover
51	S27	Point	05/09/2010	1.5	9	8	72	Organic	80	0	40	40	Important	Over-Winter	Spawning	Rearing	Yes	40 deep pool cover
52	S27	Point	05/09/2010	1.5	4	1.5	6	Organic	100	0	50	50	Important	Over-Winter	Spawning	Rearing	Yes	50 deep pool cover
53	S27	Point	05/09/2010	1.5	12	2	24	Organic	80	0	40	40	Important	Over-Winter	Spawning	Rearing	Yes	40 deep pool cover
54	S27	Point	05/09/2010	1	5	5	25	Organic	80	0	40	40	Important	Over-Winter	Spawning	Rearing	Yes	40 deep pool cover
55	S27	Point	05/09/2010	1	8	3	24	Organic	80	0	40	40	Important	Over-Winter	Spawning	Rearing	Yes	40 deep pool cover
56	S27	Point	05/09/2010	1.5	9	6	54	Organic	80	0	40	40	Important	Over-Winter	Spawning	Rearing	Yes	40 deep pool cover
57	S27	Point	05/09/2010	2.5	10	8	80	Organic	80	0	40	40	Important	Over-Winter	Spawning	Rearing	Yes	40 deep pool cover
58	S27	Point	05/09/2010	1.5	8	7	56	Organic	90	0	40	50	Important	Over-Winter	Spawning	Rearing	Yes	40 deep pool cover
59	S27	Point	05/09/2010	0.1	30	15	450	Organic	20	0	0	100	None	None	None	None	No	no connecion
3	S32	Point	06/09/2010	0.3	10	10	100	Organic	20	10	0	10	None	None	None	None	No	NCD no connections
4	S35	Point	07/09/2010	0.2	30	32	960	Organic	20	0	0	100	Marginal	Rearing	None	None	Yes	
5	S35	Point	07/09/2010	0.6	7	3	21	Organic	60	0	0	60	Marginal	Rearing	None	None	Yes	
6	S35	Point	07/09/2010	0.4	22	4	88	Organic	20	0	0	20	Marginal	Rearing	None	None	Yes	

Appendix 3.2-1

Biological Data for Fish Sampled from Lakes, Hope Bay Belt Project, 2010

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Appendix 3.2-1. Biological Data for Fish Sampled from Lakes, Hope Bay Belt Project, 2010

Date	Lake	Sampling Method	Site #	Sample #	Species Code	FL (mm)	WT (g)	Condition	Age	Sex	Mat.	Repr. Stat.	Aging Structure			Tissue Sample	Stm. Sample	Comments
													Otoliths	Scales	FinClip			
17-Aug-10	Aimaokatalok	GN	1	1	LKWH	425	1012	1.31829839	26	1	2	-	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	1	2	LKWH	465	1301	1.29395281	16	1	2	-	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	2	3	LKTR	440	830	0.97436138	14	1	2	-	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	4	LKTR	805	6300	1.20768288	25	-	-	-	-	-	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	5	LKTR	558	1530	0.88062059	-	-	-	-	-	-		-	-	
17-Aug-10	Aimaokatalok	GN	3	6	LKTR	558	1723	0.99170541	14	-	-	-	-	-	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	7	LKTR	555	1182	0.69141457	14	-	-	-	-	-	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	8	LKTR	426	696	0.90028589	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	9	LKTR	368	465	0.93305984	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	10	LKTR	295	198	0.77125704	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	11	LKTR	214	70	0.71426064	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	4	12	LKTR	785	4500	0.93025828	-	-	-	-	-	-	1	-	-	
17-Aug-10	Aimaokatalok	GN	4	13	LKTR	660	3800	1.32175752	19	-	-	-	-	-	1	-	-	
17-Aug-10	Aimaokatalok	GN	4	14	LKTR	735	3500	0.88146694	21	-	-	-	-	-	1	-	-	
17-Aug-10	Aimaokatalok	GN	4	15	LKTR	365	477	0.980934	-	-	-	-	-	-	1	-	-	
17-Aug-10	Aimaokatalok	GN	4	16	LKWH	338	472	1.22233965	-	_	_	_	_	_		-	-	
17-Aug-10	Aimaokatalok	GN	3	17	LKTR	564	2091	1.16551192	18	1	1	1	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	18	LKWH	346	504	1.21675248	16	2	1	1	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	19	LKTR	512	1248	0.92983246	16	1	2	2	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	20	LKWH	461	1121	1.14420235	-	2	1	1	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	21	LKWH	402	954	1.46848737	-	1	2	2	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	22	LCIS	215	95	0.95589068	-	2	1	1	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	23	LKTR	290	237	0.97174956	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	24	LKWH	340	508	1.29248931	-	2	2	2	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	25	LCIS	185	61	0.96341776	4	0	-	-	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	26	LCIS	215	95	0.95589068	10	1	2	2	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	27	LCIS	176	54	0.99050291	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	28	LCIS	187	66	1.00929731	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	29	LCIS	170	47	0.95664563	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	30	LCIS	183	55	0.89744826	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	31	LCIS	185	59	0.9318303	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	32	LCIS	182	61	1.01184892	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	33	LCIS	192	73	1.03138111	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	34	LCIS	175	50	0.93294461	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	35	LCIS	175	54	1.00758017	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	36	LCIS	174	51	0.96810493	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	37	LCIS	183	64	1.04430343	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	38	LCIS	180	58	0.99451303	7	1	2	2	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	39	LCIS	204	105	1.23679806	10	1	2	2	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	40	LCIS	176	59	1.08221614	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	41	LCIS	172	47	0.92366081	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	42	LCIS	172	54	1.06122731	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	43	LCIS	164	44	0.9975189	5	1	2	2	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	44	LKWH	335	540	1.43634689	16	2	1	1	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	45	LKTR	356	506	1.12150322	11	1	1	1	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	46	LKTR	535	1440	0.94037515	-	2	2	2	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	47	LCIS	346	471	1.13708416	-	1	2	2	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	48	LCIS	167	54	1.1594295	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	49	LCIS	172	46	0.90400845	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	50	LCIS	178	60	1.06387657	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	51	LCIS	165	42	0.93496953	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	52	LCIS	172	49	0.96296553	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	53	LCIS	157	31	0.80105574	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	54	LCIS	160	35	0.85449219	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	55	LCIS	235	151	1.16351868	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	56	LKWH	322	428	1.28196496	10	2	1	1	1	1	1	-	-	

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Date	Lake	Sampling Method	Site #	Sample #	Species Code	FL (mm)	WT (g)	Condition	Age	Sex	Mat.	Repr. Stat.	Aging Structure			Tissue Sample	Stm. Sample	Comments
													Otoliths	Scales	FinClip			
17-Aug-10	Aimaokatalok	GN	3	57	LKWH	260	207	1.17774238	7	2	1	1	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	58	LCIS	150	31	0.91851852	-	2	1	1	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	59	LCIS	187	66	1.00929731	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	60	LCIS	168	46	0.97013012	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	61	LCIS	171	43	0.85996371	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	62	LCIS	187	59	0.90225063	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	63	LCIS	157	36	0.93025828	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	64	LCIS	215	112	1.1269448	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	65	LCIS	168	41	0.86468119	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	66	LCIS	173	53	1.02361717	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	67	LCIS	61	38	16.7414894	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	68	LCIS	172	40	0.78609431	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	69	LCIS	177	52	0.93774238	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	70	LCIS	172	46	0.90400845	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	71	LCIS	158	35	0.88735374	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	72	LCIS	167	45	0.96619125	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	73	LCIS	187	62	0.94812778	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	74	LCIS	174	59	1.11996453	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	75	LCIS	158	32	0.81129485	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	76	LCIS	188	51	0.76753224	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	77	LCIS	186	56	0.87026034	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	78	LCIS	190	65	0.94766001	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	79	LCIS	177	53	0.95577589	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	80	LCIS	170	45	0.91593731	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	81	LCIS	174	46	0.87319268	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	82	LCIS	170	49	0.99735396	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	83	LCIS	144	28	0.93771433	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	84	LCIS	176	48	0.88044703	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	85	LCIS	193	-	-	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	86	LCIS	172	-	-	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	87	LCIS	159	-	-	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	88	LCIS	170	-	-	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	89	LCIS	175	-	-	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	90	LCIS	138	-	-	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	91	LCIS	189	-	-	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	92	LCIS	150	-	-	-	-	-	-	-	-	-	-	-	
17-Aug-10	Aimaokatalok	GN	3	93	LCIS	125	17	0.8704	2	2	1	1	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	94	LCIS	185	185	2.92184076	4	2	2	2	1	1	1	-	-	
17-Aug-10	Aimaokatalok	GN	3	95	LCIS	220	220	2.0661157	5	1	1	1	1	1	1	-	-	
18-Aug-10	Aimaokatalok	GN	5	97	LKTR	792	5500	1.10710075	16	-	-	-	-	-	1	-	-	no sample 96
18-Aug-10	Aimaokatalok	GN	5	98	LKTR	468	-	-	12	2	1	1	1	1	1	-	-	
18-Aug-10	Aimaokatalok	GN	5	99	LKTR	442	-	-	10	1	1	1	-	1	1	-	-	
18-Aug-10	Aimaokatalok	GN	6	100	LKTR	515	1313	0.9612648	16	2	2	3	1	1	1	-	-	
18-Aug-10	Aimaokatalok	GN	6	101	LKTR	575	1355	0.7127476	26	-	-	-	1	1	1	-	-	
19-Aug-10	Aimaokatalok	GN	8	102	LKTR	618	1764	0.74736569	18	-	-	-	-	-	1	-	-	
19-Aug-10	Aimaokatalok	GN	8	103	LKTR	540	1632	1.03642737	32	2	2	3	1	1	1	-	-	
19-Aug-10	Aimaokatalok	GN	8	104	LKWH	495	1631	1.34474013	20	1	2	2	1	1	1	-	-	
19-Aug-10	Aimaokatalok	GN	8	105	LKWH	467	1280	1.25678019	-	1	2	2	1	1	1	-	-	
19-Aug-10	Aimaokatalok	GN	9	106	LKTR	770	-	-	29	-	-	-	-	-	1	-	-	
19-Aug-10	Aimaokatalok	GN	9	107	LKWH	505	1601	1.24313186	-	2	1	1	1	1	1	-	-	
19-Aug-10	Aimaokatalok	GN	9	108	LCIS	146	28	0.89970361	2	0	1	1	1	1	1	-	-	
19-Aug-10	Aimaokatalok	GN	9	109	LCIS	192	62	0.87596752	-	-	-	-	-	-	-	-	-	
19-Aug-10	Aimaokatalok	GN	9	110	LKTR	373	533	1.02707158	10	1	1	1	1	1	1	-	-	
19-Aug-10	Aimaokatalok	GN	9	111	LCIS	336	398	1.04921681	10	2	2	2	1	1	1	-	-	
19-Aug-10	Aimaokatalok	GN	10	112	LKTR	670	2978	0.99014839	-	-	-	-	-	-	1	-	-	
19-Aug-10	Aimaokatalok	GN	12	113	LKTR	525	-	-	20	0	-	-	-	-	1	-	-	

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Date	Lake	Sampling Method	Site #	Sample #	Species Code	FL (mm)	WT (g)	Condition	Age	Sex	Mat.	Repr. Stat.	Aging Structure			Tissue Sample	Stm. Sample	Comments
													Otoliths	Scales	FinClip			
19-Aug-10	Aimaokatalok	GN	11	114	LKTR	670	-	-	-	-	-	-	-	-	-	-	-	
19-Aug-10	Aimaokatalok	GN	11	115	LKWH	485	-	-	-	-	-	-	-	-	-	-	-	
19-Aug-10	Aimaokatalok	GN	11	116	LKTR	580	1818	0.93177252	19	0	-	-	-	-	1	-	-	
20-Aug-10	Aimaokatalok	GN	14	117	LKTR	572	1632	0.87203129	20	2	2	2	1	1	1	1	1	
20-Aug-10	Aimaokatalok	GN	14	118	LKTR	546	1436	0.88221921	21	2	1	1	1	1	1	1	1	
20-Aug-10	Aimaokatalok	GN	14	119	LKTR	444	819	0.93569647	13	2	1	1	1	1	1	1	1	
20-Aug-10	Aimaokatalok	GN	14	120	LKTR	541	1464	0.92459019	27	2	1	1	1	1	1	1	empty	no stomach sample
20-Aug-10	Aimaokatalok	GN	14	121	LKTR	628	1961	0.79176931	24	2	1	1	1	1	1	1	empty	no stomach sample
20-Aug-10	Aimaokatalok	GN	14	122	LKTR	765	3660	0.81751698	32	2	1	1	1	1	1	1	1	
20-Aug-10	Aimaokatalok	GN	14	123	LKTR	665	1757	0.59745724	-	2	1	1	1	1	1	1	1	
20-Aug-10	Aimaokatalok	GN	14	124	LKTR	745	3500	0.84644594	25	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	125	LKTR	585	1955	0.97651555	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	126	LKTR	610	2043	0.90007534	13	-	-	-	-	1	1	-	-	
20-Aug-10	Aimaokatalok	GN	14	127	LKTR	700	2924	0.85247813	19	-	-	-	-	1	1	-	-	
20-Aug-10	Aimaokatalok	GN	13	128	LKTR	455	-	-	-	-	-	-	-			-	-	
20-Aug-10	Aimaokatalok	GN	13	129	LKTR	835	-	-	19	-	-	-	-	1	1	-	-	
20-Aug-10	Aimaokatalok	GN	13	130	LKTR	855	-	-	-	-	-	-	-	1	1	-	-	
20-Aug-10	Aimaokatalok	GN	13	131	LKTR	855	-	-	28	-	-	-	-	1	1	-	-	
20-Aug-10	Aimaokatalok	GN	13	132	LKTR	730	-	-	23	-	-	-	-	1	1	-	-	
20-Aug-10	Aimaokatalok	GN	13	133	LKTR	462	1810	1.83549264	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	134	LCIS	555	593	0.34687719	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	235	LCIS	361	497	1.05641554	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	236	LCIS	200	80	1	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	237	LCIS	175	52	0.97026239	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	160	LCIS	179	52	0.90665957	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	161	LCIS	315	349	1.11659008	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	162	LCIS	200	91	1.1375	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	163	LCIS	208	82	0.91122127	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	135	LCIS	292	288	1.15676179	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	136	LCIS	327	467	1.33559143	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	137	LCIS	320	384	1.171875	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	138	LCIS	331	439	1.21054389	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	139	LKTR	668	1529	0.51295362	37	1	1	1	1	1	1	1	1	
20-Aug-10	Aimaokatalok	GN	14	140	LKTR	635	221	0.08631198	29	2	1	1	1	1	1	1	1	
20-Aug-10	Aimaokatalok	GN	14	141	LKTR	700	2350	0.6851312	23	2	1	1	1	1	1	1	1	
20-Aug-10	Aimaokatalok	GN	14	142	LKTR	668	2242	0.75215305	33	2	1	1	1	1	1	1	empty	no stomach sample
20-Aug-10	Aimaokatalok	GN	14	143	LKTR	495	1122	0.92507567	20	1	1	1	1	1	1	1	empty	no stomach sample
20-Aug-10	Aimaokatalok	GN	14	144	LKTR	474	993	0.93242567	24	2	1	1	1	1	1	1	empty	no stomach sample
20-Aug-10	Aimaokatalok	GN	14	145	LKWH	426	978	1.26505689	16	1	2	2	1	1	1	1	1	
20-Aug-10	Aimaokatalok	GN	14	146	LKWH	420	950	1.28225894	21	1	2	2	1	1	1	1	1	
20-Aug-10	Aimaokatalok	GN	14	147	LCIS	367	-	-	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	148	LKWH	460	-	-	19	1	2	2	1	1	1	1	1	
20-Aug-10	Aimaokatalok	GN	14	149	LKWH	410	841	1.22023766	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	150	LKWH	420	866	1.16888025	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	13	151	LKTR	310	289	0.97009164	-	1	1	1	1	1	1	-	-	
20-Aug-10	Aimaokatalok	GN	13	152	LKTR	389	592	1.00571031	9	2	1	1	1	1	1	-	-	
20-Aug-10	Aimaokatalok	GN	13	153	LKTR	475	1195	1.11503135	-	1	2	2	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	15	154	LKTR	815	-	-	-	-	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	15	155	LKTR	525	-	-	-	1	2	2	-	-	-	-	-	bright spawing colours
20-Aug-10	Aimaokatalok	GN	16	156	LKTR	367	-	-	-	0	-	-	-	-	-	-	-	
20-Aug-10	Aimaokatalok	GN	14	157	LKWH	442	1012	1.17196247	34	2	1	1	1	1	1	-	-	
20-Aug-10	Aimaokatalok	GN	14	158	LKWH	456	-	-	15	1	2	2	1	1	1	-	-	
20-Aug-10	Aimaokatalok	GN	14	159	LKTR	791	-	-	14	1	1	1	1	1	1	-	-	
21-Aug-10	Aimaokatalok	GN	17	168	LKTR	422	764	1.01661381	19	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	17	169	LKWH	405	834	1.25545451	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	170	LCIS	331	367	1.01200366	-	-	-	-	-	-	-	-	-	

Appendix 3.2-1. Biological Data for Fish Sampled from Lakes, Hope Bay Belt Project, 2010

Date	Lake	Sampling Method	Site #	Sample #	Species Code	FL (mm)	WT (g)	Condition	Age	Sex	Mat.	Repr. Stat.	Aging Structure			Tissue Sample	Stm. Sample	Comments
													Otoliths	Scales	FinClip			
21-Aug-10	Aimaokatalok	GN	17	171	LCIS	318	328	1.01998194	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	172	LCIS	341	474	1.19540538	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	173	LCIS	358	518	1.12896552	16	1	2	2	1	1	1	-	-	
21-Aug-10	Aimaokatalok	GN	17	174	LCIS	414	328	0.46224564	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	175	LCIS	467	337	0.33088666	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	176	LCIS	215	105	1.05651075	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	177	LCIS	326	427	1.23246636	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	178	LCIS	176	58	1.0638735	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	179	LCIS	157	37	0.95609879	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	180	LCIS	168	47	0.9912199	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	181	LCIS	312	364	1.19849879	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	182	LCIS	136	21	0.83483869	2	0	0	1	1	1	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	183	LCIS	353	466	1.05940447	16	2	2	1	1	1	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	184	LCIS	318	350	1.08839537	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	185	LCIS	164	42	0.95217713	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	186	LCIS	145	28	0.91844684	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	187	LCIS	161	39	0.93451651	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	188	LCIS	146	24	0.77117452	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	17	189	LCIS	142	-	-	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	19	190	LKTR	327	328	0.93805993	-	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	19	191	LKTR	643	2375	0.89336862	16	-	-	-	-	1	1	-	-	
21-Aug-10	Aimaokatalok	GN	20	192	LKTR	873	-	-	-	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	20	193	LKTR	812	4680	0.8741335	-	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	20	194	LKTR	730	2830	0.72747463	-	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	20	195	LKTR	623	2783	1.15093041	-	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	20	196	LKTR	668	3285	1.1020619	-	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	20	197	LKTR	641	2490	0.94542103	17	1	1	1	-	1	1	-	-	
21-Aug-10	Aimaokatalok	GN	21	198	LKTR	606	2169	0.97463427	-	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	21	199	LKTR	736	3545	0.8891659	-	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	21	200	LKTR	370	425	0.83904211	-	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	21	201	LKTR	515	1180	0.86389373	-	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	21	202	LKTR	546	1385	0.85088692	19	2	1	1	1	1	1	-	-	
21-Aug-10	Aimaokatalok	GN	22	203	LKTR	788	-	-	-	-	-	-	-	-	1	-	-	
21-Aug-10	Aimaokatalok	GN	21	204	LKTR	462	1045	1.05971813	18	1	1	1	1	1	1	-	-	
21-Aug-10	Aimaokatalok	GN	21	205	LKTR	305	269	0.94809698	10	1	1	1	1	1	1	-	-	
21-Aug-10	Aimaokatalok	GN	21	206	LCIS	273	228	1.12059042	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	207	LCIS	336	458	1.2073902	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	208	LKWH	363	638	1.33383099	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	209	LCIS	331	426	1.17469635	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	210	LCIS	333	476	1.28906332	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	211	LCIS	302	273	0.99115555	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	212	LCIS	338	463	1.19903232	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	213	LCIS	325	470	1.36913974	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	214	LCIS	203	87	1.03999473	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	215	LCIS	220	106	0.99549211	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	216	LCIS	211	78	0.83032332	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	217	LCIS	257	185	1.08986413	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	218	LCIS	265	197	1.05859199	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	219	LCIS	188	-	-	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	220	LCIS	180	58	0.99451303	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	221	LCIS	263	-	-	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	222	LCIS	340	390	0.99226542	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	223	LCIS	333	462	1.2511497	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	224	LCIS	355	538	1.20253359	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	225	LCIS	340	478	1.2161612	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	226	LCIS	354	497	1.12033164	-	-	-	-	-	-	-	-	-	

Appendix 3.2-1. Biological Data for Fish Sampled from Lakes, Hope Bay Belt Project, 2010

Date	Lake	Sampling Method	Site #	Sample #	Species Code	FL (mm)	WT (g)	Condition	Age	Sex	Mat.	Repr. Stat.	Aging Structure			Tissue Sample	Stm. Sample	Comments
													Otoliths	Scales	FinClip			
21-Aug-10	Aimaokatalok	GN	21	227	LCIS	168	38	0.80141183	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	228	LCIS	157	-	-	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	229	LCIS	159	39	0.97022673	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	230	LCIS	245	-	-	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	231	LCIS	345	446	1.08611941	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	232	LCIS	180	-	-	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	233	LCIS	157	37	0.95609879	-	-	-	-	-	-	-	-	-	
21-Aug-10	Aimaokatalok	GN	21	234	LKTR	520	1111	0.79013996	21	2	1	1	1	1	1	-	-	
26-Aug-10	Reference B	GN	2	2	LKTR	421	800	1.07212075	12	1	1	1	1	1	1	-	-	
26-Aug-10	Reference B	GN	2	3	LKTR	445	920	1.04401754	15	2	1	1	1	1	1	-	-	
26-Aug-10	Reference B	GN	4	10	LKTR	455	919	0.97562141	14	2	1	1	1	1	1	-	-	
26-Aug-10	Reference B	GN	3	11	LKTR	475	1068	0.99653011	16	2	1	1	1	1	1	-	-	
26-Aug-10	Reference B	GN	4	6	LKTR	482	1280	1.14305955	14	1	2	4	-	-	1	-	-	
26-Aug-10	Reference B	GN	4	5	LKTR	503	1459	1.14644002	15	1	2	4	-	-	1	-	-	
26-Aug-10	Reference B	GN	4	7	LKTR	515	1372	1.00445949	19	1	2	4	-	-	1	-	-	
26-Aug-10	Reference B	GN	4	8	LKTR	518	1621	1.16625558	14	1	2	4	-	-	1	-	-	
26-Aug-10	Reference B	GN	3	12	LKTR	542	1630	1.02374017	14	1	2	4	1	1	1	-	-	
26-Aug-10	Reference B	GN	4	9	LKTR	555	1995	1.16698144	24	2	2	4	1	1	1	-	-	
26-Aug-10	Reference B	GN	2	1	LKTR	560	1610	0.91677296	22	-	-	-	-	-	1	-	-	
26-Aug-10	Reference B	GN	4	4	LKTR	672	2730	0.89961115	21	1	2	4	-	-	1	-	-	
24-Aug-10	Reference D	GN	1	1	LKTR	469	957	0.92766978	16	1	1	1	1	1	1	1	1	Live LKTR captures were sacrificed for tissue samples in ref D lake only
25-Aug-10	Reference D	GN	2	5	LCIS	121	13	0.73381611	1	0	-	-	1	1	1	-	-	
25-Aug-10	Reference D	GN	2	4	LCIS	124	18	0.94407707	1	0	-	-	1	1	1	-	-	
25-Aug-10	Reference D	GN	3	7	LKFW	127	21	1.0251989	1	0	-	-	1	1	1	-	-	
25-Aug-10	Reference D	GN	3	8	LKTR	338	472	1.22233965	6	1	1	1	1	1	1	1	1	
25-Aug-10	Reference D	GN	6	10	LKTR	341	410	1.03400043	8	2	1	1	1	1	1	1	1	
25-Aug-10	Reference D	GN	5	9	LKTR	382	552	0.99025944	12	2	1	1	1	1	1	1	1	
25-Aug-10	Reference D	GN	6	11	LKTR	410	720	1.04467434	-	2	1	1	1	1	1	1	1	
25-Aug-10	Reference D	GN	2	3	LKTR	414	884	1.24580836	10	0	-	-	1	1	1	1	1	
25-Aug-10	Reference D	GN	2	2	LKTR	435	825	1.00227334	-	2	1	1	1	1	1	1	1	
25-Aug-10	Reference D	MT	3	6	NSSB	67	-	-	-	-	-	-	-	-	-	-	-	
12-Sep-10	Reference D	GN	1	1	ARCH	460	-	-	6	0	-	-	1	-	-	-	-	
12-Sep-10	Reference D	GN	1	2	LKTR	390	-	-	8	1	-	-	1	-	-	-	-	
12-Sep-10	Reference D	GN	1	3	LKTR	412	-	-	10	0	-	-	1	-	-	-	-	
12-Sep-10	Reference D	GN	1	4	LKTR	422	-	-	10	0	-	-	1	-	-	-	-	
12-Sep-10	Reference D	GN	1	5	LKTR	429	-	-	11	0	-	-	1	-	-	-	-	
22-Aug-10	Stickleback	GN	5	35	ARGR	380	676	1.23195801	-	1	2	2	1	1	1			
22-Aug-10	Stickleback	MT	1	1	NSSB	44	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	2	NSSB	57	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	3	NSSB	46	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	4	NSSB	46	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	5	NSSB	44	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	6	NSSB	45	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	7	NSSB	49	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	8	NSSB	46	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	9	NSSB	66	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	10	NSSB	45	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	11	NSSB	40	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	12	NSSB	48	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	13	NSSB	47	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	14	NSSB	49	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	15	NSSB	42	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	16	NSSB	59	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	17	NSSB	46	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	18	NSSB	46	-	-	-	-	-	-	-	-	-	-	-	

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Date	Lake	Sampling Method	Site #	Sample #	Species Code	FL (mm)	WT (g)	Condition	Age	Sex	Mat.	Repr. Stat.	Aging Structure			Tissue Sample	Stm. Sample	Comments
													Otoliths	Scales	FinClip			
22-Aug-10	Stickleback	MT	1	19	NSSB	52	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	20	NSSB	45	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	21	NSSB	63	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	22	NSSB	46	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	23	NSSB	47	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	24	NSSB	48	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	25	NSSB	53	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	26	NSSB	56	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	27	NSSB	48	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	28	NSSB	53	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	29	NSSB	44	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	30	NSSB	41	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	31	NSSB	49	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	32	NSSB	51	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	33	NSSB	43	-	-	-	-	-	-	-	-	-	-	-	
22-Aug-10	Stickleback	MT	1	34	NSSB	48	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	GN	1	17	LKTR	567	2543	1.3950738	-	-	-	-	-	-	1	-	-	
23-Aug-10	Trout	GN	1	18	LKTR	748	5998	1.43318307	-	-	-	-	-	-	1	-	-	
23-Aug-10	Trout	MT	1	1	NSSB	67	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	2	NSSB	58	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	3	NSSB	49	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	4	NSSB	62	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	5	NSSB	49	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	6	NSSB	54	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	7	NSSB	52	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	8	NSSB	44	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	9	NSSB	61	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	10	NSSB	54	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	11	NSSB	53	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	12	NSSB	45	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	13	NSSB	49	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	14	NSSB	53	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	15	NSSB	65	-	-	-	-	-	-	-	-	-	-	-	
23-Aug-10	Trout	MT	1	16	NSSB	48	-	-	-	-	-	-	-	-	-	-	-	

Appendix 3.2-2

Fish Density Data Collected during the Daytime Hydroacoustic Survey of the Aimaokatalok Lake Ore Deposit Area, Hope Bay Belt Project, 2010

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Appendix 3.2-2. Fish Density Data Collected during the Daytime Hydroacoustic Survey of the Aimaokatalok Lake Ore Deposit Area, Hope Bay Belt Project, 2010

Longitude	Latitude	Fish/ha	Transect	Interval
-106.4117181	67.66561954	0.000	1	11
-106.4105603	67.6655353	0.000	1	12
-106.4093803	67.66557406	0.000	1	13
-106.4082015	67.66562924	0.024	1	14
-106.4070207	67.66565136	0.000	1	15
-106.4058295	67.6656431	0.000	1	16
-106.4046509	67.665625	0.000	1	17
-106.4034897	67.66568848	0.000	1	18
-106.4023151	67.66569674	0.000	1	19
-106.397537	67.66199095	0.000	3	3
-106.3987333	67.6619375	0.000	3	4
-106.3999159	67.66192311	0.000	3	5
-106.4010923	67.6619172	0.000	3	6
-106.4022831	67.66194356	0.000	3	7
-106.40346	67.66195	0.000	3	8
-106.4046412	67.66196	0.000	3	9
-106.4058246	67.66195848	0.017	3	10
-106.4069944	67.66190818	0.853	3	11
-106.4081832	67.66190333	0.000	3	12
-106.409374	67.66190014	0.000	3	13
-106.410675	67.66191833	0.000	3	14
-106.4114133	67.6619425	0.000	3	15
-106.4137417	67.65856905	0.015	5	3
-106.4126576	67.65857833	0.000	5	4
-106.4115084	67.6586179	0.034	5	5
-106.4103326	67.65864167	0.000	5	6
-106.4091481	67.658635	0.078	5	7
-106.4079658	67.65861333	0.000	5	8
-106.4067785	67.65860424	0.000	5	9
-106.4055889	67.65857742	0.000	5	10
-106.4044189	67.65857667	0.013	5	11
-106.4032359	67.65855467	0.000	5	12
-106.4020501	67.65855	0.048	5	13
-106.4008731	67.65856046	0.000	5	14
-106.3991931	67.65685144	0.000	6	9
-106.4003766	67.65681265	0.000	6	10
-106.4015534	67.65679242	0.000	6	11
-106.4027282	67.65674477	0.000	6	12
-106.4039105	67.65673273	0.000	6	13
-106.4050849	67.65670136	0.000	6	14
-106.4062641	67.65665076	22.386	6	15
-106.4074497	67.65663962	935.534	6	16
-106.4086693	67.65665014	0.000	6	17
-106.4096933	67.65666373	0.000	6	18
-106.4093213	67.6533316	0.000	8	8
-106.4086586	67.65326943	0.000	8	9
-106.4076837	67.65320639	0.000	8	10
-106.406367	67.6531153	0.000	8	11
-106.4051994	67.65310333	0.000	8	12
-106.403991	67.653105	0.000	8	13
-106.4028147	67.65308485	0.000	8	14
-106.4016353	67.65307492	0.206	8	15
-106.4004509	67.65309606	0.000	8	16
-106.3993034	67.65318137	0.045	8	17
-106.3981309	67.65325381	0.000	8	18
-106.3969471	67.653275	0.012	8	19
-106.402464	67.64959144	0.000	10	12
-106.4036449	67.64958924	0.000	10	13
-106.4048245	67.64958051	0.000	10	14
-106.4060072	67.649575	0.000	10	15
-106.40719	67.64959667	0.000	10	16
-106.4083645	67.64963705	0.085	10	17
-106.4096926	67.64971462	1.999	10	18
-106.4123909	67.64811833	0.000	11	6
-106.4110281	67.64807659	0.000	11	7
-106.4098459	67.64802053	0.460	11	8
-106.4086661	67.64797167	0.000	11	9
-106.4074907	67.64799268	9.108	11	10
-106.4063104	67.64797877	0.059	11	11
-106.4051335	67.64793848	0.000	11	12
-106.4055681	67.64616261	0.000	12	3
-106.4066549	67.646175	9.387	12	4
-106.407943	67.64616909	6.347	12	5
-106.4091223	67.64619167	0.041	12	6
-106.4103654	67.64619795	0.000	12	7
-106.4099611	67.6450018	1.334	13	6
-106.4088846	67.64483905	2.146	13	7
-106.4076978	67.64477782	4.386	13	8
-106.4065164	67.64475243	3.315	13	9
-106.4053395	67.6447256	14.057	13	10
-106.4041674	67.64468273	0.024	13	11

Appendix 3.2-3

Fish Density Data Collected during the Dusk Hydroacoustic Survey of the Aimaokatalok Lake Ore Deposit Area, Hope Bay Belt Project, 2010

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Appendix 3.2-3. Fish Density Data Collected during the Dusk Hydroacoustic Survey of the Aimaokatalok Ore Deposit Area, Hope Bay Belt Project, 2010

Longitude	Latitude	Fish/ha	Transect	Interval
-106.4018786	67.66564409	0.000	1	31
-106.4031424	67.66561238	0.000	1	32
-106.4043285	67.66561667	0.000	1	33
-106.4055157	67.66561159	0.873	1	34
-106.4067053	67.66559833	0.000	1	35
-106.4078838	67.66555651	0.000	1	36
-106.4090543	67.66552864	0.000	1	37
-106.4103009	67.66550902	0.000	1	38
-106.4114538	67.66548038	0.000	1	39
-106.4110524	67.66374364	0.037	2	5
-106.4096635	67.66384985	0.000	2	6
-106.4084686	67.66386275	0.126	2	7
-106.4072894	67.66387167	0.171	2	8
-106.4061129	67.66390349	0.000	2	9
-106.4049383	67.6639392	0.000	2	10
-106.403749	67.66397811	0.000	2	11
-106.4025692	67.66398962	0.000	2	12
-106.4013951	67.66396558	0.000	2	13
-106.400205	67.663955	0.000	2	14
-106.3972337	67.66220114	0.000	3	7
-106.3983891	67.66211795	0.000	3	8
-106.3995738	67.66208167	0.000	3	9
-106.4007579	67.66207576	0.000	3	10
-106.4019409	67.66210356	0.000	3	11
-106.4031186	67.66211167	0.000	3	12
-106.4043085	67.662105	0.000	3	13
-106.4054876	67.66210652	0.006	3	14
-106.4066656	67.6621122	0.191	3	15
-106.4078537	67.66207227	0.178	3	16
-106.4090251	67.66201841	0.540	3	17
-106.4102412	67.66193877	0.209	3	18
-106.4111691	67.66193924	0.000	3	19
-106.4115772	67.66008976	0.000	4	1
-106.4101996	67.66012508	0.000	4	2
-106.4090116	67.66016507	0.000	4	3
-106.4078313	67.66020349	0.053	4	4
-106.4066491	67.6602331	0.016	4	5
-106.4054698	67.66026758	0.000	4	6
-106.4042898	67.66028614	1.744	4	7
-106.4031154	67.66031265	0.000	4	8
-106.40192	67.66032833	0.000	4	9
-106.4007401	67.660335	0.000	4	10
-106.3984176	67.66031667	0.000	4	12
-106.3971973	67.66031555	0.000	4	13
-106.4001286	67.65849	0.000	5	8
-106.4013076	67.65848833	0.000	5	9
-106.4024899	67.65851182	0.000	5	10
-106.4036661	67.65847553	0.094	5	11
-106.404828	67.65844942	0.191	5	12
-106.4060217	67.658455	0.000	5	13
-106.4072159	67.65845929	0.000	5	14
-106.4084043	67.65847667	0.000	5	15
-106.409573	67.65846833	0.000	5	16
-106.4108638	67.65846833	0.000	5	17
-106.4119341	67.65846333	0.000	5	18
-106.4131101	67.65847167	0.000	5	19
-106.4096083	67.65684167	0.000	6	1
-106.408225	67.656865	0.000	6	2
-106.4070348	67.65686333	0.436	6	3
-106.4058512	67.65684826	26.597	6	4
-106.4046686	67.65684151	0.000	6	5
-106.4034839	67.65685167	0.000	6	6
-106.402299	67.65686167	0.000	6	7
-106.4011219	67.65685	0.057	6	8
-106.3999353	67.65684742	0.000	6	9
-106.3987521	67.65683667	0.000	6	10
-106.3953156	67.65519015	0.000	7	7
-106.3964317	67.65502485	0.000	7	8
-106.3975564	67.65487606	0.359	7	9
-106.3987183	67.654785	0.000	7	10
-106.39988	67.65475	0.000	7	11
-106.4010736	67.65473	0.030	7	12
-106.4022446	67.65476781	0.000	7	13
-106.4034192	67.6548225	0.000	7	14
-106.4045959	67.6548525	0.054	7	15
-106.4057927	67.65486432	0.000	7	16
-106.4069592	67.65489471	0.000	7	17
-106.4081254	67.65498151	0.000	7	18
-106.4090937	67.65499	0.000	7	19
-106.4094945	67.65319273	0.000	8	6
-106.4081646	67.65325053	0.000	8	7
-106.406995	67.65316	0.000	8	8
-106.4058286	67.6530488	0.000	8	9
-106.4046916	67.65294916	0.000	8	10
-106.4035252	67.65289061	0.087	8	11
-106.4023537	67.65283803	0.471	8	12
-106.4011638	67.65281667	0.000	8	13
-106.3999855	67.6528303	0.000	8	14
-106.398793	67.65281667	0.000	8	15
-106.3976253	67.65279288	0.000	8	16
-106.3964335	67.6527873	0.000	8	17
-106.3993412	67.65122636	0.000	9	7
-106.4004527	67.65110015	0.000	9	8
-106.4016235	67.65100288	0.000	9	9
-106.4027894	67.65096061	0.000	9	10
-106.4039667	67.65097629	0.093	9	11
-106.4051515	67.6510355	0.268	9	12
-106.4063223	67.65107167	0.000	9	13
-106.407509	67.65109869	0.000	9	14
-106.4087411	67.65110545	0.000	9	15
-106.4096901	67.64995493	0.000	10	4
-106.4086656	67.64994894	0.000	10	5
-106.4074568	67.649975	148.211	10	6
-106.4062711	67.64994773	0.000	10	7
-106.4050935	67.64988447	0.000	10	8
-106.403928	67.64983485	0.000	10	9
-106.402762	67.64976985	0.000	10	10
-106.4015771	67.64972159	0.000	10	11

Appendix 3.2-4

Fish Density Data Collected during the Daytime Hydroacoustic Survey of the Aimaokatalok Lake Reference Area, Hope Bay Belt Project, 2010

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Appendix 3.2-4. Fish Density Data Collected during the Daytime Hydroacoustic Survey of the Aimaokatalok Lake Reference Area, Hope Bay Belt Project, 2010

Longitude	Latitude	Fish/ha	Transect	Interval
-106.39	67.69	79.52	1	1
-106.39	67.69	0.00	1	2
-106.39	67.69	0.00	1	3
-106.39	67.69	0.00	1	4
-106.39	67.69	0.00	1	5
-106.40	67.69	0.00	1	6
-106.40	67.69	0.00	1	7
-106.40	67.69	273.25	1	8
-106.40	67.69	0.00	1	9
-106.40	67.69	319.07	1	10
-106.40	67.69	21.70	1	11
-106.40	67.69	0.00	1	12
-106.40	67.69	0.00	1	13
-106.40	67.69	51.44	1	14
-106.41	67.69	0.00	1	15
-106.41	67.69	26.62	1	16
-106.41	67.69	0.00	1	17
-106.41	67.69	0.00	1	18
-106.41	67.69	950.37	1	19
-106.41	67.69	0.00	1	20
-106.41	67.69	20.32	1	21
-106.41	67.69	0.00	1	22
-106.41	67.69	0.00	1	23
-106.42	67.69	0.00	1	24
-106.42	67.69	0.00	1	25
-106.42	67.69	0.00	1	26
-106.42	67.69	0.00	1	27
-106.42	67.69	0.00	1	28
-106.42	67.69	0.00	1	29
-106.42	67.69	0.00	1	30
-106.39	67.69	0.00	2	2
-106.39	67.69	0.00	2	3
-106.39	67.69	0.00	2	4
-106.40	67.69	0.00	2	5
-106.40	67.69	0.00	2	6
-106.40	67.69	0.00	2	7
-106.40	67.69	0.00	2	8
-106.40	67.69	0.06	2	9
-106.40	67.69	0.00	2	10
-106.40	67.69	0.11	2	11
-106.40	67.69	7.99	2	12
-106.40	67.69	389.20	2	13
-106.41	67.69	1.42	2	14
-106.41	67.69	22.43	2	15
-106.41	67.69	65.01	2	16
-106.41	67.69	13.75	2	17
-106.41	67.69	0.32	2	18
-106.41	67.69	0.00	2	19
-106.41	67.69	148.85	2	20
-106.41	67.69	0.00	2	21
-106.41	67.69	0.00	2	22
-106.42	67.69	0.00	2	23
-106.42	67.69	0.00	2	24
-106.42	67.69	0.00	2	25
-106.42	67.69	0.00	2	26
-106.42	67.69	0.00	2	27
-106.42	67.69	0.00	2	28
-106.42	67.69	0.00	2	29
-106.42	67.69	0.00	3	1
-106.42	67.69	0.37	3	2
-106.42	67.69	211.24	3	3
-106.42	67.69	0.08	3	4
-106.42	67.69	0.00	3	5
-106.42	67.69	0.00	3	6
-106.42	67.69	101.11	3	7
-106.41	67.69	124.00	3	8
-106.41	67.69	9.22	3	9
-106.41	67.69	5.69	3	10
-106.41	67.69	17.22	3	11
-106.41	67.69	10.16	3	12
-106.41	67.69	77.51	3	13
-106.41	67.69	12.41	3	14
-106.41	67.69	65.89	3	15
-106.41	67.69	96.12	3	16
-106.40	67.70	0.00	3	17
-106.40	67.70	0.00	3	18
-106.40	67.70	0.25	3	19
-106.40	67.70	0.00	3	20
-106.40	67.70	0.00	3	21
-106.40	67.70	0.00	3	22
-106.40	67.70	0.00	3	23
-106.40	67.70	0.00	3	24
-106.40	67.70	0.00	3	25
-106.39	67.70	0.00	3	26
-106.39	67.70	0.00	3	27
-106.39	67.70	0.00	4	2
-106.40	67.70	0.00	4	3
-106.40	67.70	0.00	4	4
-106.40	67.70	0.00	4	5
-106.40	67.70	0.00	4	6
-106.40	67.70	0.00	4	7
-106.40	67.70	0.00	4	8
-106.40	67.70	0.10	4	9
-106.40	67.70	0.00	4	10
-106.40	67.70	0.00	4	11
-106.41	67.70	0.00	4	12
-106.41	67.70	64.76	4	13
-106.41	67.70	298.03	4	14
-106.41	67.70	6.64	4	15
-106.41	67.70	0.46	4	16
-106.41	67.70	0.17	4	17
-106.41	67.70	0.00	4	18
-106.41	67.70	0.00	4	19
-106.41	67.70	0.01	4	20
-106.42	67.70	0.00	4	21
-106.42	67.70	533.59	4	22
-106.42	67.70	28.86	4	23
-106.42	67.70	0.00	4	24
-106.42	67.69	759.71	4	25
-106.42	67.69	8.28	4	26
-106.42	67.69	28.66	4	27
-106.42	67.70	0.00	5	1
-106.42	67.70	0.00	5	2
-106.42	67.70	0.00	5	3
-106.42	67.70	0.12	5	4
-106.42	67.70	0.00	5	5
-106.42	67.70	0.00	5	6
-106.42	67.70	0.00	5	7
-106.41	67.70	0.00	5	8
-106.41	67.70	0.00	5	9
-106.41	67.70	0.00	5	10
-106.41	67.70	0.00	5	11
-106.41	67.70	0.00	5	12
-106.41	67.70	0.00	5	13
-106.41	67.70	0.00	5	14
-106.41	67.70	0.00	5	15
-106.41	67.70	0.00	5	16
-106.40	67.70	0.00	5	17
-106.40	67.70	0.00	5	18
-106.40	67.70	0.00	5	19
-106.40	67.70	0.00	5	20
-106.40	67.70	0.00	5	21
-106.40	67.70	0.09	5	22
-106.40	67.70	0.03	5	23
-106.40	67.70	0.00	5	24

Appendix 3.2-4. Fish Density Data Collected during the Daytime Hydroacoustic Survey of the Aimaokatalok Lake Reference Area, Hope Bay Belt Project, 2010

Longitude	Latitude	Fish/ha	Transect	Interval
-106.40	67.70	0.00	6	1
-106.40	67.70	0.02	6	2
-106.40	67.70	0.00	6	3
-106.40	67.70	0.16	6	4
-106.40	67.70	0.00	6	5
-106.40	67.70	0.00	6	6
-106.41	67.70	0.00	6	7
-106.41	67.70	0.00	6	8
-106.41	67.70	0.00	6	9
-106.41	67.70	0.00	6	10
-106.41	67.70	0.00	6	11
-106.41	67.70	0.00	6	12
-106.41	67.70	0.00	6	13
-106.41	67.70	0.00	6	14
-106.41	67.70	0.00	6	15
-106.42	67.70	0.00	6	16
-106.42	67.70	0.00	6	17
-106.42	67.70	0.00	6	18
-106.42	67.70	0.00	6	19
-106.42	67.70	0.00	6	20
-106.42	67.70	0.00	6	21
-106.42	67.70	0.00	6	22
-106.42	67.70	0.00	6	23
-106.42	67.70	0.00	7	1
-106.42	67.70	0.00	7	2
-106.42	67.70	0.00	7	3
-106.42	67.70	0.00	7	4
-106.42	67.70	0.00	7	5
-106.42	67.70	0.30	7	6
-106.42	67.70	0.00	7	7
-106.41	67.70	0.09	7	8
-106.41	67.70	0.00	7	9
-106.41	67.70	0.02	7	10
-106.41	67.70	0.00	7	11
-106.41	67.70	0.00	7	12
-106.41	67.70	0.03	7	13
-106.41	67.70	0.00	7	14
-106.41	67.70	0.00	7	15
-106.41	67.70	0.00	7	16
-106.40	67.70	0.00	7	17
-106.40	67.70	0.00	7	18
-106.40	67.70	0.00	7	19
-106.40	67.70	0.05	7	20
-106.41	67.71	0.00	8	2
-106.41	67.70	0.39	8	3
-106.41	67.70	0.00	8	4
-106.41	67.70	0.00	8	5
-106.41	67.70	0.00	8	6
-106.41	67.70	0.00	8	7
-106.41	67.70	0.00	8	8
-106.41	67.70	0.00	8	9
-106.41	67.70	0.09	8	10
-106.42	67.70	0.00	8	11
-106.42	67.70	0.00	8	12
-106.42	67.70	0.00	8	13
-106.42	67.70	0.00	8	14
-106.42	67.70	0.00	8	15
-106.42	67.70	0.00	8	16
-106.42	67.70	0.00	8	17
-106.42	67.70	0.07	8	18
-106.42	67.71	0.00	9	1
-106.42	67.71	0.04	9	2
-106.42	67.71	0.00	9	3
-106.42	67.71	0.00	9	4
-106.42	67.71	0.00	9	5
-106.42	67.71	0.00	9	6
-106.42	67.71	0.00	9	7
-106.41	67.71	0.00	9	10
-106.41	67.71	0.00	9	11
-106.41	67.71	0.00	9	12
-106.41	67.71	0.00	9	13
-106.41	67.71	0.00	9	14
-106.42	67.71	0.00	10	3
-106.42	67.71	545.56	10	4

Appendix 3.2-5

Fish Diet Composition Data (Number), Hope Bay Belt Project, 2010

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Appendix 3.2-5. Fish Diet Composition Data (Number), Hope Bay Belt Project, 2010

Location			Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D
Date			20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	24-Aug-10	24-Aug-10	24-Aug-10	24-Aug-10	24-Aug-10	24-Aug-10	24-Aug-10	24-Aug-10	11-Sep-10	12-Sep-10	12-Sep-10	12-Sep-10
Species			Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake whitefish	Lake whitefish	Lake whitefish	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout
Sample No.			100483	100484	100485	100486	100487	100488	100489	100490	100491	100492	100493	100494	100495	100496	100497	100498	100499	100500	100501	100502	100503	100504
Stomach Number			117	118	119	122	123	139	140	141	145	146	147	01	02	03	08	09	10	11	01	09	10	11
Fullness (%)			20	50	90	90	50	0	0	0	20	50	25	90	100	90	90	100	100	100	90	25	25	90
Digestion (%)			25	50	25	10	90	100	100	100	25	25	25	75	25	50	50	50	25	50	60	75	75	25
Actual Weight (mg)			7813	16840	29672	18171	9775	0	0	0	519	2490	939	10410	27125	22671	4670	11671	9601	26695	9607	3740	2372	10321
Comments								empty	empty	empty														
Species/Group	**Stage**	**Origin**																						
CRUSTACEA																								
EUBRANCHIOPODA																								
Triops longicaudatus		FW												5										
OSTRACODA																								
Candona		FW												4						1				
ISOPODA																								
Saduria entomon		M/FW	2	10		13																1		
AMPHIPODA																								
Gammaridae																								
Gammarus setosus		M																	6					
Gammaracanthus loricatus		M														1			1					
MYSIDACEA																								
Mysis relicta		M/FW									13	45	29									2		
INSECTA																								
TRICHOPTERA																								
Limnephilidae																								
Grensia praeterita	L	FW												1	1						1			
Grensia praeterita	P	FW												21	120	120		65	43	52		2	1	1
COLEOPTERA																								
Dytiscidae	A																				1			
Chironomidae																								
Chironomini	L	FW												1										
Phaenopsectra	L																		1			2		
MOLLUSCA																								
Bivalvia																								
Pisidium		FW									2	2	2			1								
Sphaerium		FW										6								14			1	1
Gastropoda																								
Valvata sincera sincera		FW										1			1	3				3				1
FISH	juv																							
Salmonidae	juv	FW			1		1																	
Gasterostidae																								
Pungitius pungitius		M/FW												12	27	33	12	10	11	44	18	6	9	28
NON-FOOD ITEMS																								
Case materials														P				P			P	P		
Plant												P	P	P	P	P		P	P	P	P		P	
Pebble								P			P	P	P						P					
TOTAL			**2**	**10**	**1**	**13**	**1**	**0**	**0**	**0**	**15**	**54**	**31**	**44**	**149**	**158**	**12**	**75**	**62**	**114**	**20**	**8**	**16**	**31**

Appendix 3.2-6

Fish Diet Composition Data (Wet Weight), Hope Bay Belt Project, 2010

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Appendix 3.2-6. Fish Diet Composition Data (Wet Weight), Hope Bay Belt Project, 2010

Location			Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Aimaokatalok Lake	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D	Ref Lake D
Date			20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	20-Aug-10	24-Aug-10	24-Aug-10	24-Aug-10	24-Aug-10	24-Aug-10	24-Aug-10	24-Aug-10	11-Sep-10	12-Sep-10	12-Sep-10	12-Sep-10
Species			Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake whitefish	Lake whitefish	Lake whitefish	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout	Lake trout
Stomach Number			117	118	119	122	123	139	140	141	145	146	147	01	02	03	08	09	10	11	01	09	10	11
Sample No.			100483	100484	100485	100486	100487	100488	100489	100490	100491	100492	100493	100494	100495	100496	100497	100498	100499	100500	100501	100502	100503	100504
Fullness (%)			20	50	90	90	50	0	0	0	20	50	25	90	100	90	90	100	100	100	90	25	25	90
Digestion (%)			25	50	25	10	90	100	100	100	25	25	25	75	25	50	50	50	25	50	60	75	75	25
Actual Weight (mg)			7813	16840	29672	18171	9775	0	0	0	519	2490	939	10410	27125	22671	4670	11671	9601	26695	9607	3740	2372	10321
Comments								empty	empty	empty														
Species/Group	**Stage**	**Origin**																						
CRUSTACEA																								
EUBRANCHIOPODA																								
Triops longicaudatus		FW												697										
OSTRACODA																								
Candona		FW												2						1				
ISOPODA																								
Saduria entomon		M/FW	7813	16840		18171																	1152	
AMPHIPODA																								
Gammaridae																								
Gammarus setosus		M																	327					
Gammaracanthus loricatus		M														18			45					
MYSIDACEA																								
Mysis relicta		M/FW									512	2192	910										50	
INSECTA																								
TRICHOPTERA																								
Limnephilidae																								
Grensia praeterita	L	FW												26	35						37			
Grensia praeterita	P	FW												1050	5929	5946		3167	2150	2600		100	50	50
COLEOPTERA																								
Dytiscidae	A																				6			
Chironomidae																								
Chironomini	L	FW												2										
Phaenopsectra	L																		4				6	
MOLLUSCA																								
Bivalvia																								
Pisidium		FW									6	21	14			7								
Sphaerium		FW										266								100			71	23
Gastropoda																								
Valvata sincera sincera		FW										6			26	65				76				33
FISH	juv																							
Salmonidae	juv	FW			29672		8414																	
Gasterostidae																								
Pungitius pungitius		M/FW												7272	21040	13532	4670	8353	7064	23695	9391	3594	1036	10215
NON-FOOD ITEMS																								
Case materials														208				94			25	46		
Plant												3	6	1590	95	3103		57	8	223	148		7	
Pebble							1361				1	2	9						3					
TOTAL			**7813**	**16840**	**29672**	**18171**	**9775**	**0**	**0**	**0**	**519**	**2490**	**939**	**10847**	**27125**	**22671**	**4670**	**11671**	**9601**	**26695**	**9607**	**3740**	**2372**	**10321**

Appendix 3.2-7

Fish Tissue Metals Concentrations of Lake Trout Sampled from Streams and Ponds, Hope Bay Belt Project, 2010

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Appendix 3.2-7. Fish Tissue Metals Concentrations of Lake Trout Sampled from Streams and Ponds, Hope Bay Belt Project, 2010

Sample ID	AIMAOKATALOK 117 MUSCLE	AIMAOKATALOK 118 MUSCLE	AIMAOKATALOK 119 MUSCLE	AIMAOKATALOK 120 MUSCLE	AIMAOKATALOK 121 MUSCLE	AIMAOKATALOK 122 MUSCLE	AIMAOKATALOK 123 MUSCLE	AIMAOKATALOK 139 MUSCLE	AIMAOKATALOK 140 MUSCLE	AIMAOKATALOK 141 MUSCLE	AIMAOKATALOK 142 MUSCLE	AIMAOKATALOK 143 MUSCLE	AIMAOKATALOK 144 MUSCLE	REFD 1 MUSCLE	REFD 2 MUSCLE
Date Sampled	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	24-AUG-10	24-AUG-10
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
ALS Sample ID	L941447-97	L941447-98	L941447-99	L941447-100	L941447-101	L941447-102	L941447-103	L941447-104	L941447-105	L941447-106	L941447-107	L941447-108	L941447-109	113	114
Matrix	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Biological Data															
Fork Length (mm)	572	546	444	541	628	765	665	668	635	700	668	495	474	469	435
Weight (g)	1632	1436	819	1464	1961	3660	1757	1529	221	2350	2242	1122	993	957	825
Physical Tests															
% Moisture	82.0	79.8	78.9	81.4	80.7	79.5	78.8	82.5	81.4	80.9	81.1	81.2	79.8	79.6	76.9
Metals															
Al	1	1	1	1	1	1	1	1	1	1	4.4	1	1	1	3.0
Sb	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
As	0.074	0.120	0.033	0.073	0.045	0.089	0.150	0.040	0.069	0.067	0.127	0.078	0.122	0.014	0.119
Ba	0.020	0.015	0.005	0.005	0.005	0.029	0.005	0.005	0.005	0.005	0.067	0.005	0.037	0.012	0.048
Be	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Bi	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Cd	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Ca	59.0	57.9	62.0	78.9	81.7	40.7	44.2	108	50.8	40.3	159	44.1	51.8	59.4	68.1
Cr	0.32	0.05	0.24	0.26	0.70	0.17	0.05	0.24	0.16	0.19	0.24	0.05	0.05	0.05	0.05
Co	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cu	0.172	0.417	0.259	0.288	0.198	0.202	0.216	0.150	0.273	0.300	0.219	0.167	0.186	0.220	0.333
Pb	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Li	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Mg	209	224	220	234	210	233	206	228	230	227	191	216	228	201	240
Mn	0.140	0.153	0.169	0.161	0.141	0.072	0.108	0.120	0.118	0.118	0.239	0.101	0.234	0.120	0.270
Hg	1.07	0.956	0.393	1.05	0.938	1.80	0.728	0.953	1.30	1.09	1.62	0.874	0.768	0.201	0.232
Mo	0.018	0.005	0.013	0.013	0.031	0.011	0.005	0.014	0.005	0.014	0.012	0.005	0.005	0.005	0.005
Ni	0.20	0.05	0.15	0.16	0.38	0.11	0.05	0.14	0.10	0.11	0.15	0.05	0.05	0.05	0.05
Se	0.1	0.1	0.1	0.1	0.1	0.20	0.21	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sr	0.056	0.050	0.058	0.057	0.107	0.019	0.044	0.102	0.052	0.039	0.215	0.023	0.024	0.052	0.167
Tl	0.005	0.005	0.010	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Sn	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.062	0.087	0.087	0.206
U	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
V	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Zn	2.52	3.34	2.88	2.87	2.68	2.88	2.67	2.92	2.81	3.04	3.37	2.52	2.61	3.11	3.88

Appendix 3.2-7. Fish Tissue Metals Concentrations of Lake Trout Sampled from Streams and Ponds, Hope Bay Belt Project, 2010

Sample ID	REFD 3 MUSCLE	REFD 8 MUSCLE	REFD 9 MUSCLE	REFD 10 MUSCLE	REFD 11 MUSCLE	REFD 1 MUSCLE	REFD 9 MUSCLE	REFD 10 MUSCLE	REFD 11 MUSCLE	AIMAOKATALOK 117 LIVER	AIMAOKATALOK 118 LIVER	AIMAOKATALOK 119 LIVER	AIMAOKATALOK 120 LIVER	AIMAOKATALOK 121 LIVER	AIMAOKATALOK 122 LIVER	AIMAOKATALOK 123 LIVER
Date Sampled	24-AUG-10	25-AUG-10	25-AUG-10	25-AUG-10	25-AUG-10	11-SEP-10	12-SEP-10	12-SEP-10	12-SEP-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
ALS Sample ID	115	116	117	118	119	120	121	122	123	L941447-124	L941447-125	L941447-126	L941447-127	L941447-128	L941447-129	L941447-130
Matrix	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Biological Data																
Fork Length (mm)	414	338	382	341	410	-	-	-	-	572	546	444	541	628	765	665
Weight (g)	884	472	552	410	720	-	-	-	-	1632	1436	819	1464	1961	3660	1757
Physical Tests																
% Moisture	77.8	77.1	77.3	80.3	77.4	77.7	76.6	77.0	76.0	79.8	76.7	80.0	78.2	78.3	76.2	80.9
Metals																
Al	1	1	3.7	1	2.0	1	1	1	1	2.9	1	1	4.2	4.8	2.1	4.0
Sb	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
As	0.031	0.010	0.013	0.027	0.028	0.015	0.015	0.016	0.014	0.058	0.048	0.067	0.060	0.058	0.031	0.222
Ba	0.026	0.012	0.020	0.016	0.042	0.011	0.031	0.011	0.045	0.067	0.014	0.013	0.005	0.014	0.011	0.012
Be	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Bi	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Cd	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0920	0.0576	0.0250	0.0812	0.0801	0.0460	0.0848
Ca	53.7	50.7	55.4	76.2	67.5	142	212	152	285	58.4	64.8	127	138	86.1	51.9	90.4
Cr	0.05	0.11	0.33	0.44	0.14	0.05	0.27	0.05	0.05	0.05	0.34	0.19	0.20	0.21	0.11	0.15
Co	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.302	0.228	0.106	0.160	0.496	0.117	0.125
Cu	0.357	0.305	0.316	0.233	0.259	0.242	0.241	0.252	0.300	30.9	38.8	7.32	20.0	35.4	17.3	13.5
Pb	0.01	0.01	0.048	0.01	0.01	0.01	0.01	0.01	0.01	0.031	0.01	0.01	0.01	0.01	0.01	0.01
Li	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Mg	218	234	224	259	195	243	268	261	253	137	145	132	140	153	128	127
Mn	0.134	0.118	0.346	0.224	0.189	0.140	0.229	0.148	0.252	1.75	1.81	1.31	1.40	1.80	1.11	1.32
Hg	0.116	0.089	0.135	0.142	0.116	0.192	0.118	0.093	0.130	2.34	1.92	0.471	2.09	1.73	3.02	1.19
Mo	0.005	0.005	0.005	0.012	0.005	0.005	0.014	0.005	0.005	0.118	0.195	0.110	0.164	0.149	0.116	0.115
Ni	0.05	0.05	0.19	0.22	0.05	0.05	0.16	0.05	0.05	0.05	0.20	0.12	0.12	0.13	0.05	0.12
Se	0.1	0.1	0.1	0.24	0.1	0.1	0.1	0.1	0.1	1.69	1.74	1.25	1.50	1.65	1.86	1.41
Sr	0.075	0.047	0.046	0.066	0.066	0.201	0.356	0.220	0.412	0.122	0.142	0.168	0.179	0.176	0.074	0.128
Tl	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.040	0.029	0.031	0.038	0.062	0.021	0.041
Sn	0.155	0.244	0.175	0.180	0.108	0.025	0.025	0.025	0.025	0.084	0.116	0.127	0.069	0.095	0.025	0.073
U	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
V	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Zn	3.69	3.19	4.02	3.56	3.45	3.90	3.62	4.16	4.13	34.0	45.0	26.6	33.3	33.8	28.9	29.0

Appendix 3.2-7. Fish Tissue Metals Concentrations of Lake Trout Sampled from Streams and Ponds, Hope Bay Belt Project, 2010

Sample ID	AIMAOKATALOK 139 LIVER	AIMAOKATALOK 140 LIVER	AIMAOKATALOK 141 LIVER	AIMAOKATALOK 142 LIVER	AIMAOKATALOK 143 LIVER	AIMAOKATALOK 144 LIVER	REFD 1 LIVER	REFD 2 LIVER	REFD 3 LIVER	REFD 8 LIVER	REFD 9 LIVER	REFD 10 LIVER	REFD 11 LIVER	REFD 1 LIVER	REFD 9 LIVER	REFD 10 LIVER	REFD 11 LIVER
Date Sampled	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	20-AUG-10	24-AUG-10	24-AUG-10	24-AUG-10	25-AUG-10	25-AUG-10	25-AUG-10	25-SEP-10	11-SEP-10	12-SEP-10	12-SEP-10	12-SEP-10
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
ALS Sample ID	L941447-131	L941447-132	L941447-133	L941447-134	L941447-135	L941447-136	141	142	143	144	145	146	147	148	149	150	151
Matrix	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Biological Data																	
Fork Length (mm)	668	635	700	668	495	474	469	435	414	338	382	341	410	-	-	-	-
Weight (g)	1529	221	2350	2242	1122	993	957	825	884	472	552	410	720	-	-	-	-
Physical Tests																	
% Moisture	77.2	77.7	77.5	76.4	74.2	80.5	77.9	78.1	75.7	75.8	77.5	76.3	74.6	72.3	73.7	77.4	67.6
Metals																	
Al	6.1	1	4.1	1	2.3	3.5	1	2.3	1	1	4.1	5.6	1	3.3	2.2	3.3	1
Sb	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
As	0.044	0.047	0.075	0.030	0.071	0.045	0.034	0.090	0.041	0.031	0.016	0.069	0.065	0.031	0.046	0.033	0.051
Ba	0.005	0.005	0.019	0.005	0.023	0.013	0.011	0.064	0.005	0.019	0.023	0.031	0.024	0.104	0.032	0.100	0.030
Be	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Bi	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Cd	0.107	0.0633	0.0689	0.0585	0.0677	0.0618	0.0212	0.0203	0.0224	0.0206	0.0128	0.0174	0.0170	0.0169	0.0160	0.0424	0.0150
Ca	65.7	90.8	88.9	57.7	813	82.9	85.8	51.7	47.5	66.3	64.9	57.0	96.3	81.8	61.7	57.1	66.4
Cr	0.12	0.15	0.05	0.05	0.05	0.05	0.22	0.05	0.11	0.66	0.24	0.46	0.20	0.60	0.40	0.17	0.56
Co	0.220	0.402	0.257	0.259	0.297	0.085	0.051	0.116	0.069	0.075	0.046	0.151	0.035	0.054	0.053	0.143	0.044
Cu	20.8	22.9	20.8	24.0	20.7	21.2	7.31	16.1	17.1	8.54	13.0	10.6	8.91	7.17	8.98	8.84	13.9
Pb	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Li	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Mg	147	148	132	132	161	134	162	152	139	137	169	147	154	187	207	171	187
Mn	1.69	2.26	1.32	1.02	1.87	1.32	1.73	1.77	1.26	1.32	1.53	1.89	1.72	1.74	1.49	1.76	1.59
Hg	2.43	2.52	1.80	3.42	1.75	1.30	0.263	0.200	0.127	0.086	0.185	0.126	0.148	0.114	0.187	0.0717	0.104
Mo	0.138	0.153	0.145	0.104	0.110	0.109	0.128	0.123	0.115	0.140	0.139	0.120	0.170	0.169	0.183	0.160	0.172
Ni	0.05	0.12	0.05	0.05	0.05	0.05	0.13	0.05	0.05	0.38	0.13	0.25	0.12	0.27	0.16	0.05	0.23
Se	2.33	2.01	1.51	1.80	1.67	1.10	1.00	1.14	1.28	1.00	0.87	0.91	1.42	1.63	1.31	1.05	1.76
Sr	0.076	0.154	0.158	0.077	0.966	0.101	0.137	0.140	0.130	0.141	0.114	0.126	0.157	0.202	0.142	0.154	0.129
Tl	0.042	0.025	0.024	0.017	0.027	0.039	0.026	0.029	0.024	0.038	0.025	0.036	0.038	0.038	0.045	0.016	0.047
Sn	0.126	0.167	0.025	0.073	0.119	0.098	0.105	0.135	0.127	0.155	0.160	0.379	0.132	0.152	0.127	0.154	0.109
U	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0022	0.001
V	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Zn	30.2	34.4	31.4	29.8	36.3	32.6	28.8	33.7	35.0	31.5	33.4	27.9	34.7	30.5	35.1	32.2	32.6

Appendix 3.2-8

Biological Data for Fish Sampled from Streams, Ponds and Surface Waters Adjacent to Potential Quarry Sites, Hope Bay Belt Project, 2010

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Appendix 3.2-8. Biological Data for Fish Sampled from Streams, Ponds and Surface Waters Adjacent to Potential Quarry Sites, Hope Bay Belt Project, 2010

Site	Method	Species Code	Fork Length (mm)	Weight (g)	Condition	Aging Structure	Age
Southern Belt **(continued)**							
Q8	EF	NSSB	32	0.1	0.31		
Q8	EF	NSSB	26	-	-		
Q8	EF	NSSB	31	0.2	0.67		
Q8	EF	NSSB	22	-	-		
Q8	EF	NSSB	24	-	-		
Q8	EF	NSSB	30	0.2	0.74		
Q8	EF	NSSB	31	0.1	0.34		
Q8	EF	NSSB	23	-	-		
Q8	EF	NSSB	28	-	-		
Q8	EF	NSSB	21	-	-		
Q10	EF	NSSB	36	0.2	0.43		
Q10	EF	ARGR	55	1.4	0.84	FR, S	0
Q10	EF	ARGR	55	1.4	0.84	FR, S	0
Q10	EF	NSSB	29	-	-		
Q10	EF	NSSB	28	-	-		

Appendix 3.2-9

Fish Tissue Metals Concentrations of Ninespine Stickleback Sampled from Streams and Ponds, Hope Bay Belt Project, 2010

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Appendix 3.2-9. Fish Tissue Metals Concentrations of Ninespine Stickleback Sampled from Streams and Ponds, Hope Bay Belt Project, 2010

Sample ID	BOSTON1 NORTH STREAM 1	BOSTON1 NORTH STREAM 2	BOSTON1 NORTH STREAM 3	BOSTON1 NORTH STREAM 4	BOSTON1 NORTH STREAM 5	BOSTON1 NORTH STREAM 6	BOSTON1 NORTH STREAM 7	BOSTON1 NORTH STREAM 8	BOSTON1 NORTH STREAM 9	BOSTON1 NORTH STREAM 10	BOSTON1 NORTH STREAM 11	BOSTON1 NORTH STREAM 12	BOSTON1 NORTH STREAM 13	BOSTON1 NORTH STREAM 14	BOSTON1 NORTH STREAM 15	BOSTON1 NORTH STREAM 16	BOSTON1 NORTH STREAM 17	BOSTON1 NORTH STREAM 18	BOSTON1 NORTH STREAM 19	BOSTON1 NORTH STREAM 20
Date Sampled	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
ALS Sample ID	L941447-1	L941447-2	L941447-3	L941447-4	L941447-5	L941447-6	L941447-7	L941447-8	L941447-9	10	11	12	13	14	15	16	17	18	19	20
Matrix	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Biological Data																				
Fork Length (mm)	58	61	52	55	51	46	45	47	48	45	46	44	42	46	37	42	41	35	36	34
Weight (g)	1.4	1.6	1.1	1	0.7	0.6	0.6	1	0.6	0.6	0.7	0.6	0.5	0.7	0.5	0.5	0.4	0.2	..4	0.3
Physical Tests																				
% Moisture	72.2	70.6	67.0	75.8	76.4	68.2	67.2	69.0	74.1	70.1	68.5	64.8	65.5	71.1	69.2	67.6	65.7	66.3	67.6	68.6
Metals																				
Al	30.6	56.6	66.1	8.3	9.8	37.0	31.0	18.3	6.3	13.4	34.7	52.8	63.3	32.3	31.9	20.8	18.4	78.1	68.3	126
Sb	0.01	0.01	0.01	0.01	0.015	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
As	0.036	0.070	0.052	0.01	0.030	0.042	0.061	0.047	0.048	0.040	0.052	0.051	0.056	0.035	0.065	0.043	0.032	0.061	0.041	0.065
Ba	3.07	2.58	2.32	3.37	5.62	2.77	2.35	2.45	3.07	1.56	2.43	1.96	3.54	2.45	5.33	2.42	2.25	6.92	2.44	5.15
Be	0.1	0.1	0.1	0.1	0.15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Bi	0.03	0.03	0.03	0.03	0.045	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Cd	0.020	0.025	0.010	0.021	0.034	0.021	0.021	0.012	0.013	0.011	0.021	<0.010	0.019	0.017	0.035	0.011	0.010	0.022	0.014	0.028
Ca	12100	10600	11600	11800	17000	12400	11000	9180	12400	10200	10700	10900	15400	11100	11800	13100	14200	16000	13500	14100
Cr	0.1	0.1	0.1	0.1	0.15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.22	0.22	3.32
Co	0.02	0.050	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.049	0.02	0.074	0.02	0.02	0.066	0.02	0.063
Cu	1.74	1.56	1.23	1.31	1.64	1.09	0.941	1.08	1.78	1.10	1.24	0.986	1.30	1.27	1.19	0.836	1.32	1.60	1.51	1.61
Pb	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.155	39.7	0.110
Li	0.1	0.1	0.1	0.1	0.15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mg	375	367	373	549	434	404	354	409	562	342	339	375	435	462	397	382	423	555	422	496
Mn	9.29	9.80	8.68	6.45	11.2	8.58	8.62	6.15	7.20	8.32	7.15	6.50	8.25	6.93	8.88	10.8	5.57	9.43	5.98	16.5
Hg	0.088	0.0806	0.0441	0.0891	0.109	0.0439	0.0381	0.0549	0.0464	0.0537	0.0446	0.0358	0.0314	0.0392	0.0285	0.0379	0.0269	0.0372	0.0195	0.0193
Mo	0.031	0.037	0.029	0.023	0.032	0.031	0.026	0.024	0.025	0.024	0.029	0.033	0.027	0.035	0.034	0.025	0.025	0.038	0.031	0.049
Ni	0.1	0.1	0.1	0.1	0.15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Se	0.42	0.42	0.2	0.2	0.3	0.2	0.2	0.42	0.2	0.2	0.42	0.2	0.2	0.49	0.2	0.2	0.2	0.43	0.2	0.2
Sr	17.0	13.6	17.3	14.9	20.7	17.9	17.6	13.0	15.1	14.2	15.9	15.2	26.4	15.8	19.0	18.4	24.2	24.8	23.9	23.0
Tl	0.01	0.01	0.01	0.01	0.015	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Sn	0.05	0.05	0.05	0.05	0.075	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
U	0.0259	0.0308	0.0168	0.0218	0.0239	0.0175	0.0116	0.0106	0.0114	0.0149	0.0149	0.0156	0.0279	0.0169	0.0138	0.0117	0.0142	0.0291	0.0187	0.0293
V	0.1	0.21	0.23	0.1	0.15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.53	0.1	0.1	0.1	0.30	0.37	0.32	0.37
Zn	58.4	58.8	40.7	55.8	82.8	50.9	44.3	38.6	51.6	43.1	42.6	44.3	52.6	39.6	48.9	40.4	45.4	53.9	42.1	49.1

Appendix 3.2-9. Fish Tissue Metals Concentrations of Ninespine Stickleback Sampled from Streams and Ponds, Hope Bay Belt Project, 2010

Sample ID	BOSTON1 EAST STREAM 1	BOSTON1 EAST STREAM 2	BOSTON1 EAST STREAM 3	BOSTON1 EAST STREAM 4	BOSTON1 EAST STREAM 5	BOSTON1 EAST STREAM 6	BOSTON1 EAST STREAM 7	BOSTON1 EAST STREAM 8	BOSTON1 EAST STREAM 9	BOSTON1 EAST STREAM 10	BOSTON1 EAST STREAM 11	BOSTON1 EAST STREAM 12	BOSTON1 EAST STREAM 13	BOSTON1 EAST STREAM 14	BOSTON1 EAST STREAM 15	BOSTON1 EAST STREAM 16	BOSTON1 EAST STREAM 17	BOSTON1 EAST STREAM 18	BOSTON1 EAST STREAM 19	BOSTON1 EAST STREAM 20
Date Sampled	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
ALS Sample ID	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Matrix	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Biological Data																				
Fork Length (mm)	53	43	55	54	48	43	46	59	55	60	79	61	58	55	52	55	57	56	46	47
Weight (g)	0.8	0.5	1.1	0.6	0.6	0.4	0.6	1.5	1	1.2	2.6	1.3	1.2	1.2	0.8	0.9	1.3	0.8	0.4	-
Physical Tests																				
% Moisture	72.3	69.0	66.9	73.5	67.5	67.5	65.3	72.3	67.5	72.4	62.1	67.4	68.8	72.7	68.6	68.7	68.1	66.6	64.0	69.0
Metals																				
Al	2	2	7.6	4	7.1	2	37.1	24.7	38.7	7.3	9.1	34.3	30.5	20.8	7.3	13.3	24.5	2	12.4	9.4
Sb	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
As	0.01	0.01	0.034	0.02	0.038	0.022	0.049	0.037	0.033	0.031	0.023	0.036	0.048	0.037	0.038	0.027	0.028	0.023	0.032	0.026
Ba	2.46	1.92	1.96	5.61	2.70	2.02	2.83	2.76	2.41	2.18	2.61	3.27	3.55	3.80	2.71	2.98	3.93	1.75	3.87	2.42
Be	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Bi	0.03	0.03	0.03	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Cd	0.014	0.014	0.016	0.070	0.026	0.005	0.019	0.026	0.016	0.016	0.025	0.044	0.040	0.046	0.030	0.033	0.028	0.019	0.025	0.043
Ca	9700	11200	10600	25700	15800	11800	15400	13700	12000	11100	17300	12600	10900	15000	13900	11700	11100	10000	12800	13200
Cr	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.52	0.1	0.1	0.1	0.1	0.1	0.38	0.1	0.1	0.1
Co	0.02	0.02	0.02	0.04	0.02	0.02	0.059	0.02	0.02	0.02	0.048	0.045	0.02	0.02	0.02	0.02	0.231	0.02	0.02	0.02
Cu	1.04	0.866	0.969	1.62	1.63	1.20	1.28	3.06	1.11	1.43	1.46	1.51	1.28	1.30	1.10	1.18	1.89	2.10	1.71	0.990
Pb	0.02	0.02	0.02	0.04	0.02	0.049	0.02	0.02	0.043	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Li	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mg	309	348	321	752	447	361	470	375	358	377	509	432	354	490	445	361	391	344	421	421
Mn	5.90	6.00	7.16	15.6	12.1	7.02	12.9	9.88	8.10	8.36	19.0	8.76	8.78	10.6	10.9	7.65	8.23	12.0	6.80	7.70
Hg	0.0560	0.0400	0.079	0.164	0.0727	0.0227	0.0683	0.104	0.064	0.112	0.0982	0.121	0.082	0.124	0.0515	0.092	0.110	0.072	0.090	0.090
Mo	0.023	0.027	0.030	0.043	0.031	0.023	0.035	0.037	0.027	0.035	0.032	0.041	0.029	0.034	0.026	0.027	0.035	0.027	0.029	0.025
Ni	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	7.03	0.1	0.1	0.1
Se	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.45	0.47	0.46	0.41	0.45	0.2	0.2	0.49	0.2	0.2	0.2
Sr	16.5	15.6	15.7	40.0	25.1	21.5	25.2	19.5	17.1	15.9	24.3	21.2	16.0	19.3	20.2	16.1	16.5	14.9	18.4	17.5
Tl	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Sn	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
U	0.0042	0.0043	0.0066	0.0198	0.0152	0.0130	0.0314	0.0326	0.0139	0.0094	0.0242	0.0274	0.0185	0.0384	0.0158	0.0115	0.0175	0.0078	0.0147	0.0085
V	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.22	0.1	0.1	0.1	0.22	0.1	0.1	0.1	0.1	0.1
Zn	43.5	44.3	49.8	146	73.7	44.0	56.7	60.4	43.2	58.7	57.4	55.0	55.8	70.1	55.6	51.6	60.5	46.5	61.3	59.1

Appendix 3.2-9. Fish Tissue Metals Concentrations of Ninespine Stickleback Sampled from Streams and Ponds, Hope Bay Belt Project, 2010

Sample ID	BOSTON1 TAILINGS STREAM 1	BOSTON1 TAILINGS STREAM 2	BOSTON1 TAILINGS STREAM 3	BOSTON1 TAILINGS STREAM 4	BOSTON1 TAILINGS STREAM 5	BOSTON1 TAILINGS STREAM 6	BOSTON1 TAILINGS STREAM 7	BOSTON1 TAILINGS STREAM 8	BOSTON1 TAILINGS STREAM 9	BOSTON1 TAILINGS STREAM 10	BOSTON1 TAILINGS STREAM 11	BOSTON1 TAILINGS STREAM 12	BOSTON1 TAILINGS STREAM 13	BOSTON1 TAILINGS STREAM 14	BOSTON1 TAILINGS STREAM 15	BOSTON1 TAILINGS STREAM 16	BOSTON1 TAILINGS STREAM 17	BOSTON1 TAILINGS STREAM 18	BOSTON1 TAILINGS STREAM 19	BOSTON1 TAILINGS STREAM 20
Date Sampled	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10	06-SEP-10
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
ALS Sample ID	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Matrix	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Biological Data																				
Fork Length (mm)	66	36	36	37	37	37	30	34	49	36	34	31	34	31	38	33	38	34	38	36
Weight (g)	1.8	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.8	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.4	0.3
Physical Tests																				
% Moisture	77.1	65.3	70.0	68.3	69.8	68.1	67.3	68.0	65.8	65.3	64.7	67.4	70.0	66.3	66.7	68.6	66.8	71.5	66.8	66.5
Metals																				
Al	17.6	39.5	8.2	41.0	27.0	34.7	16.1	29.1	17.5	59.4	27.0	29.9	21.9	28.6	33.7	16.1	16.8	58.5	25.5	43.0
Sb	0.01	0.01	0.015	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.015	0.015	0.015	0.015	0.01	0.01	0.01	0.015	0.01	0.01
As	0.024	0.038	0.015	0.027	0.043	0.029	0.015	0.027	0.028	0.055	0.050	0.171	0.048	0.137	0.034	0.030	0.057	0.040	0.023	0.043
Ba	3.80	3.00	1.56	2.70	3.42	2.17	3.46	3.34	1.44	3.59	2.63	3.98	5.96	2.94	2.05	3.07	2.08	2.92	1.65	2.66
Be	0.1	0.1	0.15	0.1	0.1	0.1	0.15	0.1	0.1	0.1	0.15	0.15	0.15	0.15	0.1	0.1	0.1	0.15	0.1	0.1
Bi	0.03	0.03	0.045	0.03	0.03	0.03	0.045	0.03	0.03	0.03	0.045	0.045	0.045	0.045	0.03	0.03	0.03	0.045	0.03	0.03
Cd	0.040	0.105	0.039	0.031	0.021	0.032	0.071	0.030	0.032	0.038	0.033	0.027	0.042	0.049	0.019	0.021	0.019	0.063	0.053	0.036
Ca	12300	14000	9970	17900	14700	11500	10500	9640	9920	10200	9100	13900	16000	15000	11800	11000	12300	14600	14200	14500
Cr	0.1	0.1	0.15	0.1	0.1	0.1	0.15	0.1	0.1	0.23	0.15	0.15	0.15	0.15	0.1	0.1	0.1	0.15	0.1	0.1
Co	0.02	0.052	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.03	0.02	0.043
Cu	1.14	1.36	1.29	2.16	1.69	2.59	1.44	0.950	1.82	1.92	1.29	2.02	4.06	2.01	1.56	1.06	1.05	2.41	1.67	1.97
Pb	0.02	0.041	0.03	0.043	0.02	0.02	0.03	0.02	0.02	0.061	0.03	0.094	0.03	0.098	0.02	0.02	0.070	0.03	0.02	0.053
Li	0.1	0.1	0.15	0.1	0.1	0.1	0.15	0.1	0.1	0.1	0.15	0.15	0.15	0.15	0.1	0.1	0.1	0.15	0.1	0.1
Mg	314	468	361	443	401	358	395	348	324	417	371	507	548	506	342	337	411	500	478	473
Mn	9.33	8.30	5.56	9.59	8.37	7.35	5.68	6.35	8.87	8.68	6.25	8.85	9.01	9.24	5.75	3.32	6.09	8.78	9.76	11.2
Hg	0.178	0.116	0.0452	0.126	0.0887	0.0857	0.0596	0.0547	0.136	0.0691	0.0544	0.0797	0.0979	0.0763	0.0949	0.0958	0.0829	0.0809	0.155	0.0960
Mo	0.030	0.052	0.015	0.049	0.052	0.058	0.032	0.030	0.050	0.050	0.035	0.043	0.041	0.031	0.038	0.032	0.032	0.051	0.051	0.051
Ni	0.1	0.1	0.1	0.1	0.1	0.1	0.33	0.1	0.1	0.1	0.15	0.15	0.47	0.15	0.1	0.1	0.1	0.15	0.24	0.1
Se	0.2	0.2	0.2	0.2	0.2	0.42	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2
Sr	11.3	15.4	8.05	18.6	14.3	10.3	11.4	13.9	8.68	13.5	9.06	12.8	18.5	13.2	10.9	17.1	11.3	12.4	13.6	13.4
Tl	0.01	0.01	0.015	0.01	0.01	0.01	0.015	0.01	0.01	0.01	0.015	0.015	0.015	0.015	0.01	0.01	0.01	0.015	0.01	0.01
Sn	0.05	0.05	0.05	0.05	0.05	0.05	0.075	0.05	0.05	0.05	0.075	0.075	0.075	0.075	0.05	0.05	0.05	0.075	0.05	0.05
U	0.0838	0.113	0.0429	0.121	0.111	0.117	0.0389	0.0627	0.123	0.167	0.0553	0.0600	0.0627	0.0914	0.101	0.0300	0.0495	0.165	0.0685	0.169
V	0.1	0.1	0.15	0.22	0.1	0.1	0.15	0.1	0.1	0.34	0.15	0.15	0.15	0.15	0.1	0.1	0.1	0.15	0.1	0.1
Zn	68.3	63.4	44.3	63.7	56.1	48.6	57.3	50.6	44.2	59.2	54.6	61.9	56.3	60.9	46.7	43.8	49.8	62.3	60.1	59.6

Appendix 3.2-9. Fish Tissue Metals Concentrations of Ninespine Stickleback Sampled from Streams and Ponds, Hope Bay Belt Project, 2010

Sample ID	BOSTON 2 STREAM 1	BOSTON 2 STREAM 2	BOSTON 2 STREAM 3	BOSTON 2 STREAM 4	BOSTON 3 FT 1	BOSTON 3 FT 2	BOSTON 3 FT 3	BOSTON 3 FT 4	BOSTON 3 FT 5	BOSTON 3 FT 6	BOSTON 3 FT 7	BOSTON 3 FT 8	BOSTON 3 FT 9	BOSTON 3 FT 10	BOSTON 3 FT 11	BOSTON 3 FT 12	BOSTON 3 FT 13	BOSTON 3 FT 14	BOSTON 3 FT 15	BOSTON 3 FT 16	BOSTON 3 FT 17	BOSTON 3 FT 18	BOSTON 3 FT 19	BOSTON 3 FT 20
Date Sampled	04-SEP-10	04-SEP-10	04-SEP-10	04-SEP-10																				
Time Sampled	00:00	00:00	00:00	00:00																				
ALS Sample ID	61	62	63	64	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Matrix	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue	Tissue
Biological Data																								
Fork Length (mm)	33	36	42	34	73	66	58	70	75	73	63	59	69	62	64	58	62	60	67	55	53	45	51	62
Weight (g)	0.2	0.1	0.3	0.1	2.4	1.8	2	2.5	2.6	2.3	1.7	1.3	2.3	2.1	2.2	1.9	2.4	2.5	2.2	1.8	1.9	1.7	1.7	1.4
Physical Tests																								
% Moisture	76.1	64.7	72.5	69.0	63.5	66.4	71.6	65.9	65.9	70.3	66.5	71.5	70.5	60.5	66.8	66.9	65.9	67.4	65.4	68.0	67.3	67.4	69.9	64.3
Metals																								
Al	2	2	2	11.9	2	2	2	2	2	2	1	2	2	2	2	2	2	3	2	2	2	2	2	2
Sb	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.015	0.01	0.01	0.01	0.01	0.01	0.01
As	0.01	0.045	0.01	0.030	0.030	0.043	0.032	0.027	0.023	0.043	0.020	0.038	0.027	0.021	0.025	0.028	0.040	0.031	0.027	0.033	0.037	0.038	0.025	0.027
Ba	2.13	2.64	1.90	3.63	3.37	3.19	2.52	2.32	1.59	2.47	1.99	2.89	2.97	2.34	1.95	1.98	2.98	6.07	2.50	1.79	2.15	2.37	2.64	1.77
Be	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.1	0.1	0.1	0.1	0.1	0.1
Bi	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.015	0.03	0.03	0.03	0.03	0.03	0.03	0.045	0.03	0.03	0.03	0.03	0.03	0.03
Cd	0.019	0.018	0.012	0.005	0.017	0.027	0.014	0.005	0.011	0.005	0.0056	0.016	0.016	0.010	0.005	0.011	0.010	0.0075	0.005	0.005	0.013	0.005	0.005	0.005
Ca	17000	14800	15500	12500	16600	16500	16000	15300	14800	16200	10600	15500	21100	18600	13700	14700	18300	25000	19000	13900	13700	14700	14200	15600
Cr	0.1	0.1	0.21	0.1	0.1	0.50	0.1	0.1	0.1	0.22	0.11	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.1	0.1	0.1	0.1	0.1	0.1
Co	0.02	0.02	0.02	0.02	0.02	0.02	0.042	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02
Cu	1.52	1.25	2.28	0.942	1.02	1.06	0.913	1.05	0.873	0.939	0.756	1.59	0.799	0.866	1.11	0.806	0.944	1.13	0.732	0.842	0.762	0.563	0.836	0.907
Pb	0.067	0.02	0.02	0.02	0.101	0.051	0.050	0.02	0.081	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02
Li	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.1	0.1	0.1	0.1	0.1	0.1
Mg	458	491	448	465	476	414	411	424	440	423	380	398	458	513	378	444	474	521	526	369	382	397	398	390
Mn	8.24	3.27	6.19	5.26	13.1	18.1	10.2	10.8	8.73	7.83	6.03	15.2	13.8	11.0	8.32	11.9	13.6	15.2	15.4	7.61	8.90	7.51	14.8	13.4
Hg	0.0404	0.0692	0.0310	0.0512	0.0655	0.109	0.0548	0.0747	0.0656	0.0601	0.0550	0.0564	0.0583	0.0458	0.0809	0.0325	0.0642	0.0744	0.0550	0.0429	0.0663	0.0561	0.0448	0.0619
Mo	0.025	0.025	0.031	0.026	0.028	0.034	0.031	0.030	0.024	0.025	0.025	0.01	0.023	0.024	0.022	0.026	0.01	0.032	0.032	0.025	0.030	0.01	0.027	0.022
Ni	0.1	0.31	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.1	0.1	0.1	0.1	0.1	0.1
Se	0.2	0.2	0.2	0.2	0.43	0.2	0.2	0.2	0.2	0.2	0.22	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Sr	6.54	14.0	5.47	14.2	19.0	20.3	19.0	15.7	11.3	18.9	9.45	18.0	21.2	11.4	14.0	9.49	21.9	34.7	17.7	9.10	10.2	10.9	10.9	13.5
Tl	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.015	0.01	0.01	0.01	0.01	0.01	0.01
Sn	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.025	0.05	0.05	0.05	0.05	0.05	0.05	0.075	0.05	0.05	0.05	0.05	0.05	0.05
U	0.002	0.002	0.002	0.002	0.0043	0.0067	0.0050	0.002	0.002	0.002	0.001	0.0051	0.0093	0.002	0.002	0.002	0.0053	0.0068	0.002	0.002	0.002	0.002	0.002	0.002
V	0.1	0.1	0.1	0.1	0.1	0.1	0.24	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.1	0.1	0.1	0.1	0.1	0.1
Zn	56.6	58.8	58.8	63.4	57.0	82.6	61.1	47.0	57.3	61.5	41.9	80.4	70.8	63.1	52.8	54.8	85.5	89.7	69.1	45.0	47.2	55.1	68.2	62.4