

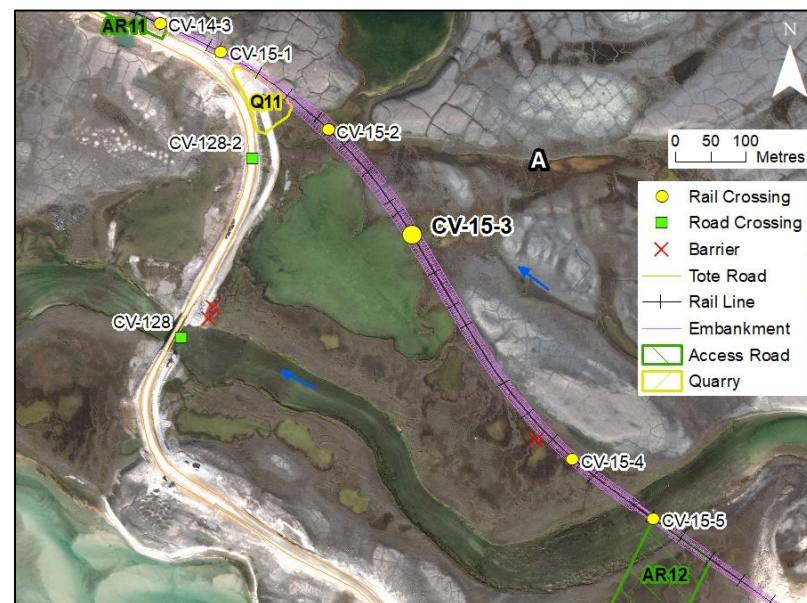
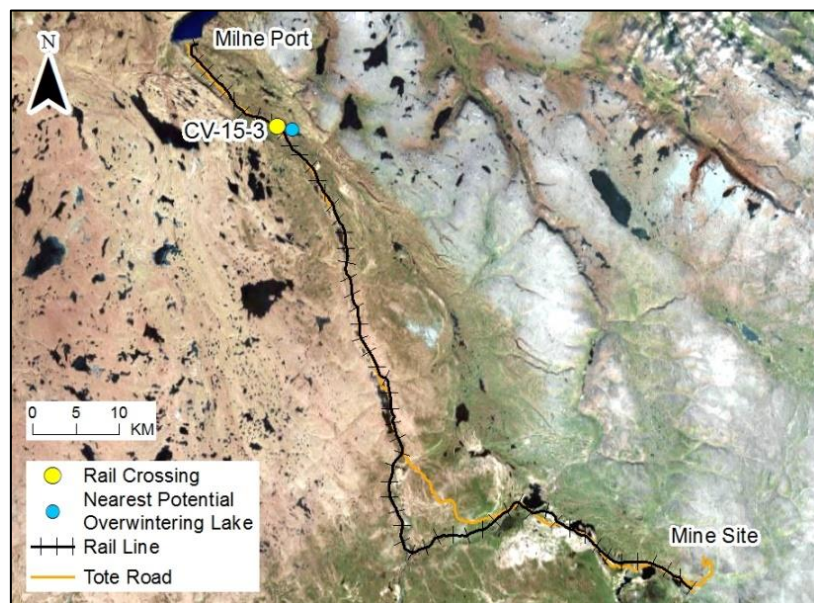
RAIL CV-15-3

LOCATION AND CROSSING DESCRIPTION

Site ID:	CV-15-3	Dates Surveyed:	18-Jun-19; 15-Aug-19	Waterbody Type:	Pond
Project Interaction:	Rail Pond Infilling + Culvert	Centreline UTM Coordinates:	17W 513893 E 7966031 N	Culvert Length (m):	47
Number of Barrels:	1	Culvert Diameter/Span (mm):	900	Slope (%):	1

GENERAL PHYSICAL CHARACTERISTICS

Surface Area (m²):	44,419	Shoreline Length (m):	1,121	Drainage Basin Area (m²):	0.331
Maximum Depth (m):	0.5 (estimated)			Mean Depth (m):	-



SUMMARY

Shallow pond encroached upon by rail provides juvenile rearing habitat for land-locked Arctic Char and rearing and likely spawning habitat for Ninespine Stickleback. The infill site is shallow and provides rearing habitat for both species. The pond is of insufficient depth to support overwintering of either species or spawning for Arctic Char.

This pond is shallow (~0.5 m max depth) with primarily fine substrates. Some nearshore areas have greater proportions of coarse substrate. Habitat east of encroachment footprint was shallow (0.1-0.2 m) with relatively coarse substrate (10% Fines, 30% Small cobble, 60% Large cobble), becoming marshy farther east. This marsh habitat extends 110 m upstream (A) of the rail encroachment. There were no upstream connections to other waterbodies (including CV-15-2) in 2019 and connectivity between the two ponds is likely rare. Direct connectivity downstream to a large unnamed river crossed near the Tote Road bridge CV-128 was observed in spring 2019; there was no connectivity observed in summer (insufficient depth and a boulder garden at mouth was a barrier to fish movement). Numerous stickleback were observed in isolated, marshy pools in summer in the pond outflow which suggests localized winterkill may occur as access to the large river may be necessary to reach overwintering habitat to the east.

**BAFFINLAND IRON MINES
MARY RIVER PROJECT**

North/South Consultants Inc.
Aquatic Environment Specialists

FISH HABITAT:

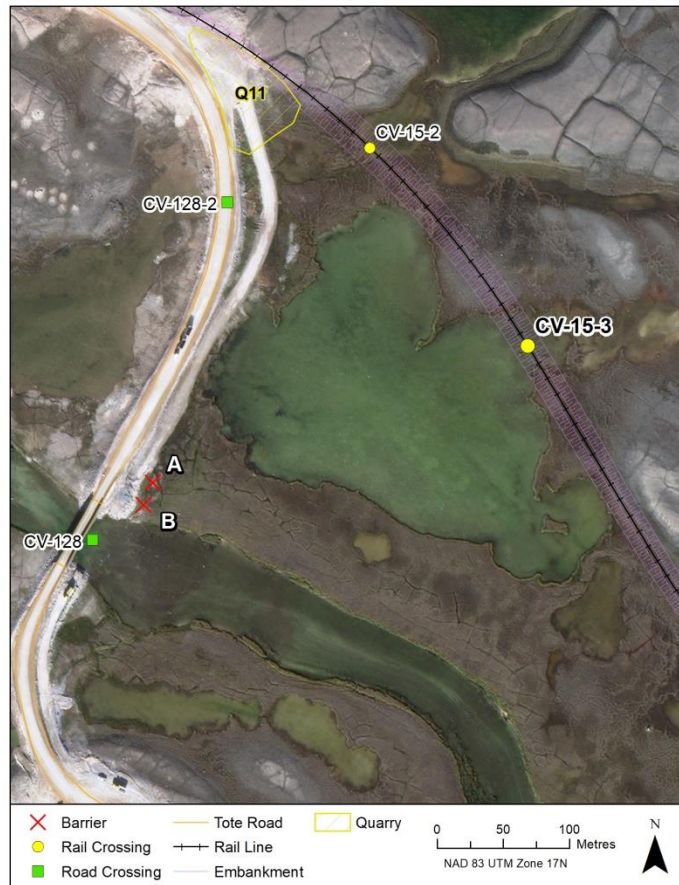
ARCTIC CHAR - YES

NINESPINE STICKLEBACK - YES

RAIL CV-15-3

BARRIERS

Upstream/ Downstream	UTM		Barrier Type			Height (m)	Gradient (°)	Description	Site Label
	Easting	Northing	1	2	3				
Inflowing Stream	All inflows appear to be diffuse over terrestrial habitat and not fish-bearing								
Outflowing Stream	513610	7965928	Other					Intermittent Barrier: Summer only – disconnected pools	A
Outflowing Stream	513603	7965911	B	SHALL				Intermittent Barrier: Summer only - Boulder garden and shallow depths at mouth	B



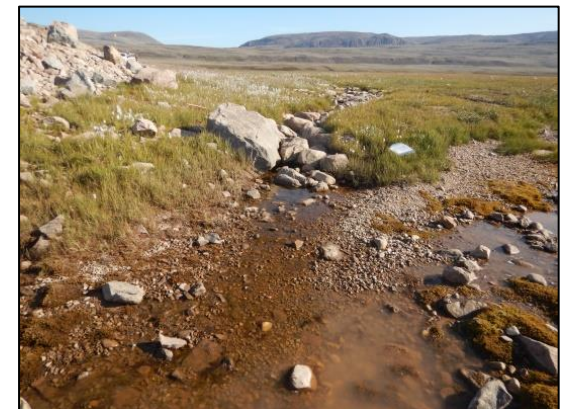
A



A



B



B

RAIL CV-15-3

FISH HABITAT POTENTIAL

Nearest Potential Overwintering Habitat - ARCH: POWL-1/km 26 Lake **Distance to Nearest Potential Overwintering Habitat - ARCH (km):** 2.3/7.8

Overwintering Habitat Upstream of Site - ARCH (Y/N): No

Species	Spawning	Overwintering	Rearing	Adults Present
ARCH	N	N	Y	N
NNST	P	N	Y	Y

FISHING SITES



RAIL CV-15-3

FISHERIES DATA

Date: 18-Jun-19 **Temperature (°C):** 9 **Gear Used:** Backpack Electrofisher/Visual
Distance Fished (m): >100 **Duration Fished (seconds):** 428

Species	Season	Effort (Seconds)	Fish Captured	Fish Observed	CPUE (No. Fish/60 Seconds)	Length Range (mm)
ARCH	Spring	428	1	0	0.14	45 (measured)
NNST	Spring	428	0	0	-	-

Date: 15-Aug-19 **Temperature (°C):** NR **Gear Used:** Backpack Electrofisher/Visual
Distance Fished (m): 50 **Duration Fished (seconds):** 338

Species	Season	Effort (Seconds)	Fish Captured	Fish Observed	CPUE (No. Fish/60 Seconds)	Length Range (mm)
ARCH	Summer/Fall	338	0	0	-	-
NNST	Summer/Fall	338	5	3	1.42	20-30 (measured)

INFILL HABITAT

Habitat Use – ARCH: Juvenile rearing **Habitat Use – NNST:** Rearing; Spawning (potential) **Maximum Water Depth (m):** 0.4

Area	Fines (%)	Gravel (%)	Small Cobble (%)	Large Cobble (%)	Boulders (%)
Nearshore	20	0	15	60	5
Offshore	60	0	5	10	25

OTHER NOTES/OBSERVATIONS

Nearest potential overwintering lake is uncertain; connectivity to Lake POWL-1 is unknown. Nearest potential overwintering lake may be the more distant km 26 Lake.

RAIL CV-15-3

18-JUN-19



A



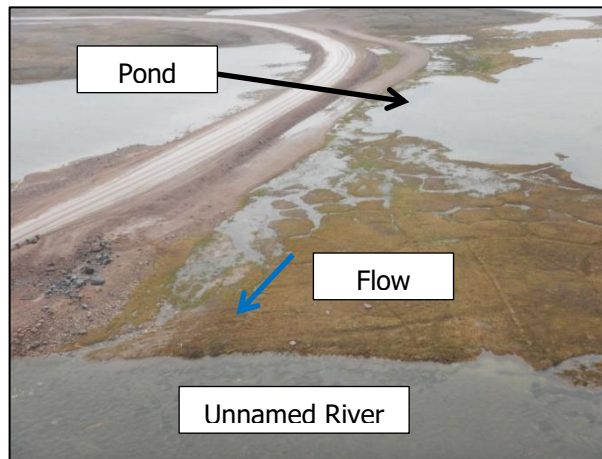
B



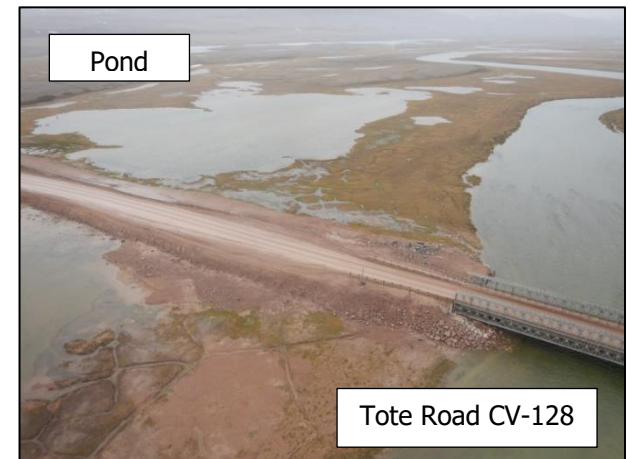
C



D



E



F

Photos 1. Photos of the pond CV-15-3: (A) at the encroachment location looking east; (B) at the encroachment site looking offshore to the southeast; (C) at the encroachment site looking south; (D) at the encroachment site looking southwest; and (E and F) pond showing connection to Unnamed downstream river at the Tote Road bridge CV-128 in spring.

RAIL CV-15-3

15-AUG-19



A



B



C



D



E



F

Photos 2. Photos of the pond CV-15-3: (A) at the encroachment location looking north; (B) at the encroachment site looking southeast; (C) at the encroachment site looking east; (D) at the encroachment site looking west; (E) pond outflow looking towards the unnamed river; and (F) pond outflow at the confluence with the unnamed river showing boulder garden.