

Figure 6-2. Fish sampling locations in lakes A18, A55, A62, and A63, 2015.





Figure 6-3. Fish sampling locations in lakes A19 and A65, 2015.





Figure 6-4. Fish sampling locations in lakes A20, A22 and A45, 2015.

## 7.0 WATER TEMPERATURE MONITORING

### 7.1 Methods

Temperature loggers (WaterTemp Pro V2, Onset Corporation) were deployed in the narrows between Whale Tail Lake and Mammoth Lake, and near the outlet of Mammoth Lake, on June 21, 2015 (**Figure 7-1**). Temperature loggers were also deployed at the south end of Whale Tail Lake and in five tributaries to Whale Tail Lake (**Figure 7-1**) on June 26 and 27, 2015. The loggers deployed between Whale Tail and Mammoth Lakes and in the Mammoth Lake outlet recorded the temperature at one minute intervals and the others recorded the temperature at 15 minute intervals. The logger between Whale Tail Lake and Mammoth Lake was moved to a deeper location, approximately 50 metres upstream, on June 28 and again, to a third location approximately 100 m farther upstream on July 13. The logger in watercourse A-P93-A17 was removed on July 3 because the watercourse was nearly dry and the logger was exposed to the air. The other loggers were removed in late August. The data were retrieved from the loggers on one or two occasions during their deployment using a Hobo waterproof shuttle (Onset Corporation).

The temperature data from the individual data retrievals for each temperature logger were combined and plotted using HOBOWare Pro software (Version 3.7.5, Onset Corporation). The plots were examined to determine if there were temperatures logged during data retrievals when the loggers were exposed to the air, characterized by larger than expected deviations from the preceding and subsequent temperatures. When these were present, they were deleted from the dataset. Four aberrant values logged at Location L4 on August 22 that were probably the result of data corruption, as they were outside of the range of the loggers, were also deleted from the dataset. The 'clean' dataset was exported to Excel (Microsoft Corporation) for graphing and analysis. The datasets for the loggers that recorded at one minute intervals were reduced to include only those data recorded at 15 minute intervals, beginning on the hour.

As stated above, the temperature logger in watercourse A-P93-A17 was exposed to the air prior to its removal on July 3. Examination of the plotted data showed a marked increase in the diurnal fluctuations at that location on July 2. Therefore the data for dates/times after July 1 were deleted from the dataset. The temperature logger at the south end of Whale Tail Lake (L4) and in watercourse A46-A17 (L8) were partially exposed to the air when they were retrieved on August 30. To determine if and when the logged temperatures were influenced by exposure to the air the differences between temperatures logged at those locations and temperatures logged in watercourse A53-A17 (L7) where the logger was always submerged were calculated and plotted. The difference between the temperatures at L4 and L7 were consistent during the latter part of the deployment period, indicating that the logger at L4 was recording water temperature throughout the deployment. The difference between the temperatures at L7 and L8 were markedly greater on August 29 and 30, indicating that the logger in T8 was recording air temperature on those dates; therefore the data for T8 from those two dates were deleted from the dataset.



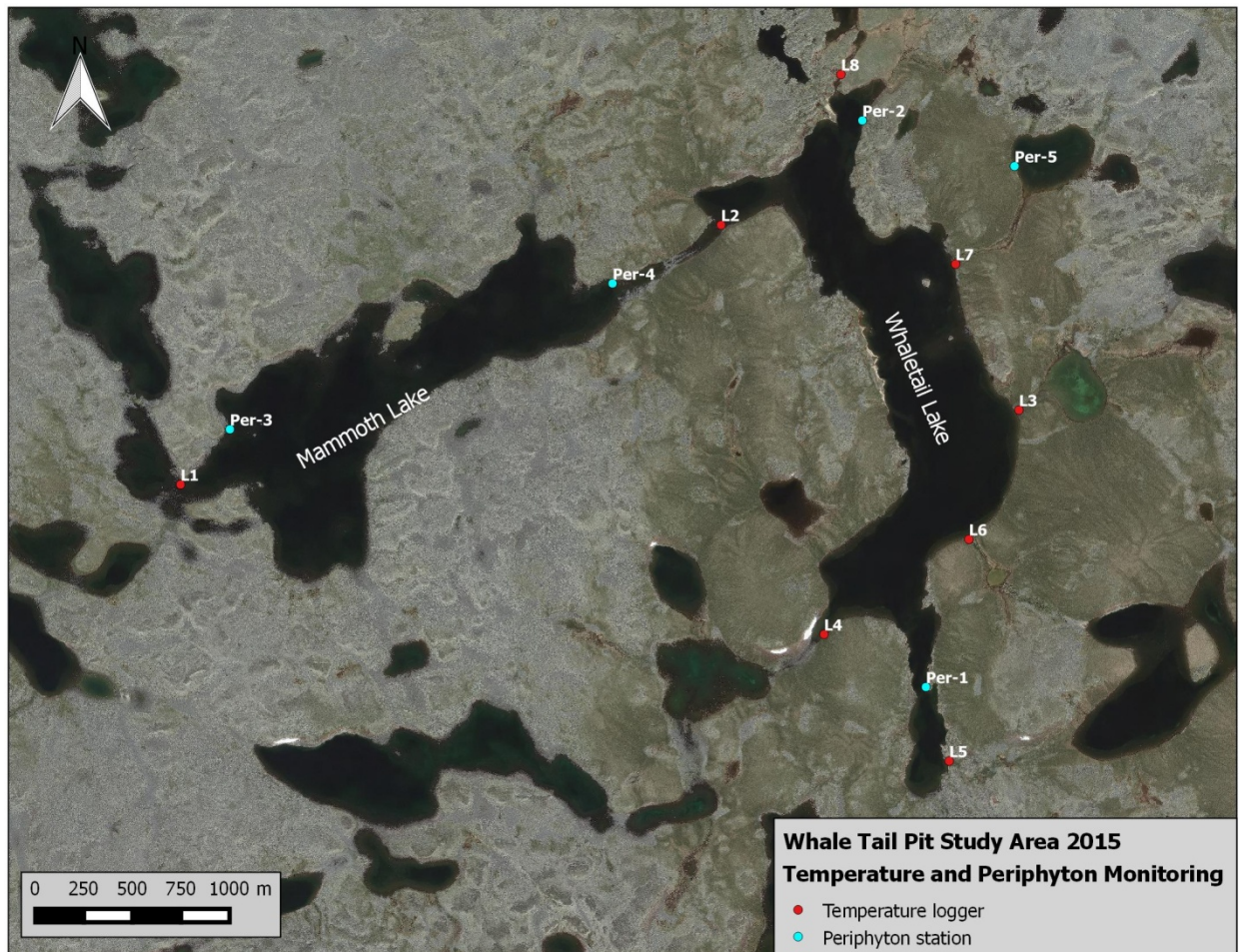


Figure 7-1. Temperature and periphyton monitoring locations in the Whale Tail Pit study area, 2015.

## 7.2 Results

The first and last complete day for which temperature data are available, the maximum water temperature recorded and the date on which the maximum temperature was recorded are presented for each location in Table 7-1. The temperature loggers at L1 and L2 stopped recording data on August 3 and August 12, respectively, when their memory capacity was reached. The other six loggers recorded temperatures from their deployment until their removal.

**Table 7-1. The first and last full day for which temperature data are available, the maximum water temperature recorded and the day that the maximum water temperature was recorded at each location.**

Location	Location ID	Start Date (2015)	End Date (2015)	Maximum temperature (°C)	Date of maximum temperature
Outlet of Mammoth Lake (A16-A17)	L1	June 22	August 2	17.1	July 29
Outlet of Whale Tail Lake (A17-A16)	L2	June 22	August 11	18.6	August 6
A55-A17	L3	June 27	August 29	19.5	August 4
South end of Whale Tail Lake (near mouth of A18-A17)	L4	June 27	August 29	20.5	July 29
A-P93-A17	L5	June 27	July 1	13.6	July 1
A59-A17	L6	June 28	August 29	21.1	August 6
A53-A17	L7	June 28	August 29	22.8	August 4
A46-A17	L8	June 28	August 27	24.5	July 27

The maximum water temperatures were recorded on July 29 in the outlet from Mammoth Lake (L1) and at the south end of Whale Tail Lake (L4) and were 17.1°C and 20.5°C respectively (Table 7-1). The maximum temperature in the outlet from Whale Tail Lake occurred on August 6 and was 18.6°C (Table 7-1). The maximum water temperatures in the four tributaries where temperatures were recorded from late June through late August and Whale Tail Lake (L2) occurred between July 27 and August 6 and ranged from 19.5°C to 24.5°C (Table 7-1).

The maximum daily water temperatures in the lake outlets were less than 3°C at the beginning of the deployments when the lakes were still ice-covered (**Figure 7-2**). Water temperatures in the outlets increased slowly until mid-July. Then a rapid increase in temperature occurred when the last of the ice in the lakes melted. The water temperature increased more rapidly at L4, at the south end of Whale Tail Lake, than it did in the lake outlet (**Figure 7-2**). This is probably because the ice melted from this arm of the lake sooner than it did on the main lake and also due to the influence of the warmer water from tributary A18-A17. After mid-July, when the last ice in the main part of Whale Tail Lake melted, the water temperatures at this location were more similar to those in the outlet from Whale Tail Lake.

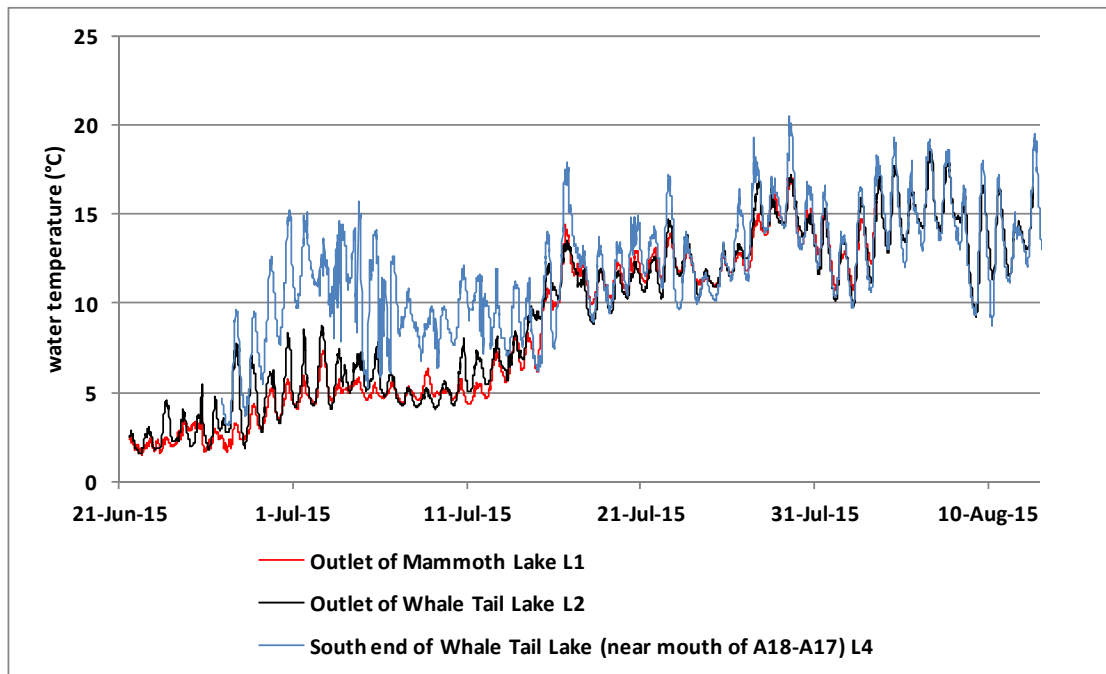


Figure 7-2. Water temperatures at the outlets of Mammoth (L1) and Whale Tail (L2) Lakes and at the south end of Whale Tail Lake (L4) for the period June 21 – August 12, 2015.

The daily mean, maximum and minimum water temperatures in the tributaries for the period June 27- August 28 are presented in Figure 7-3, Figure 7-4 and Figure 7-5 respectively. The rates of increase in temperature in late June and early July appear to be related to the duration of ice presence in the upstream lakes. Watercourse A55-A17, with only small shallow lakes and ponds upstream, warmed most quickly. Watercourse A59-A17, which has a large lake upstream, warmed most slowly. The mean temperatures of watercourses converged after mid-July and subsequently all four tributaries exhibited similar patterns in mean temperatures, presumably in response to weather conditions. In August, diurnal fluctuations were greatest in A53-17 and A46-17 (Figure 7-4 and Figure 7-5), which had the smallest drainage areas and shallow lakes upstream. Diurnal fluctuations were least in A55-A17.

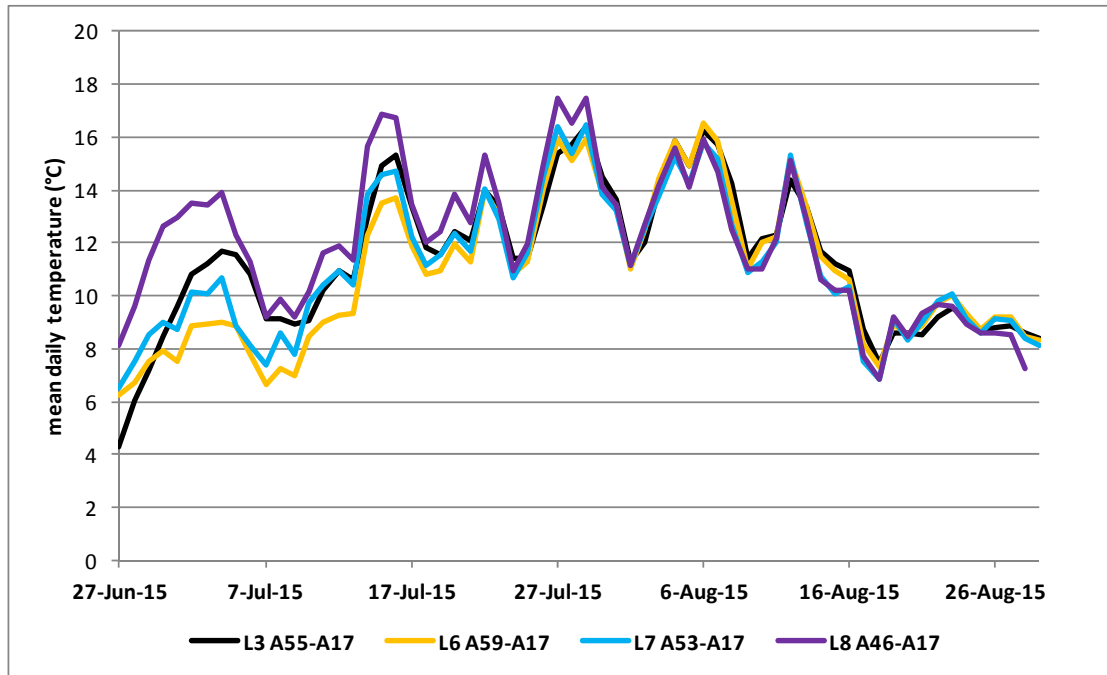


Figure 7-3. Mean daily water temperature in four tributaries to Whale Tail Lake for the period June 27 – August 28, 2015.

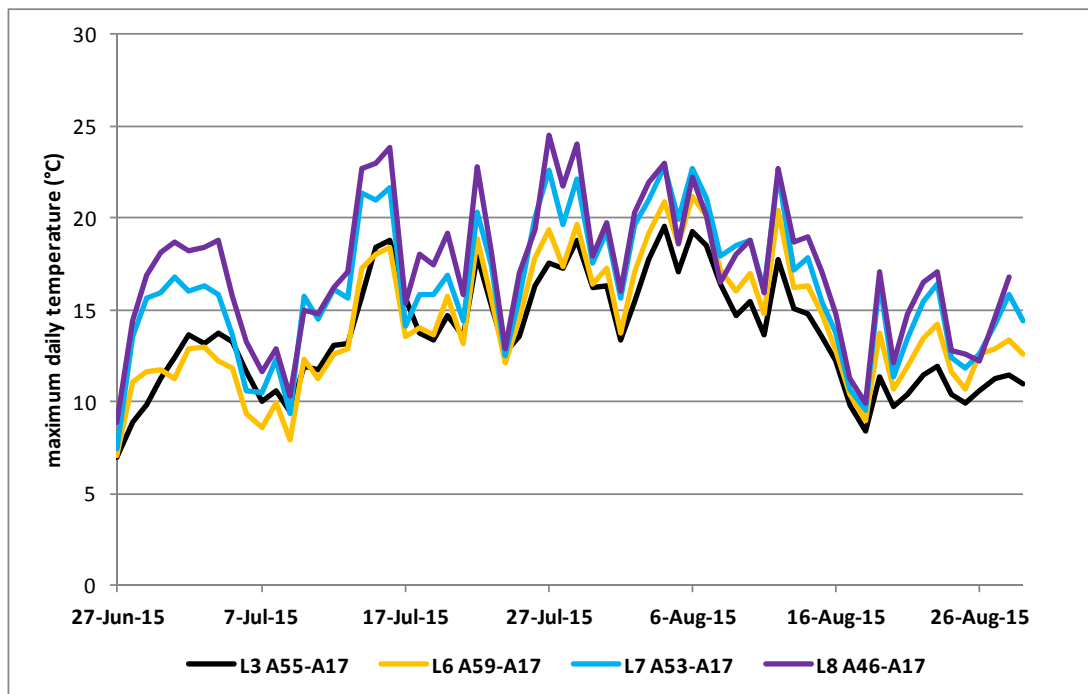


Figure 7-4. Maximum daily water temperature in four tributaries to Whale Tail Lake for the period June 27 – August 28, 2015.



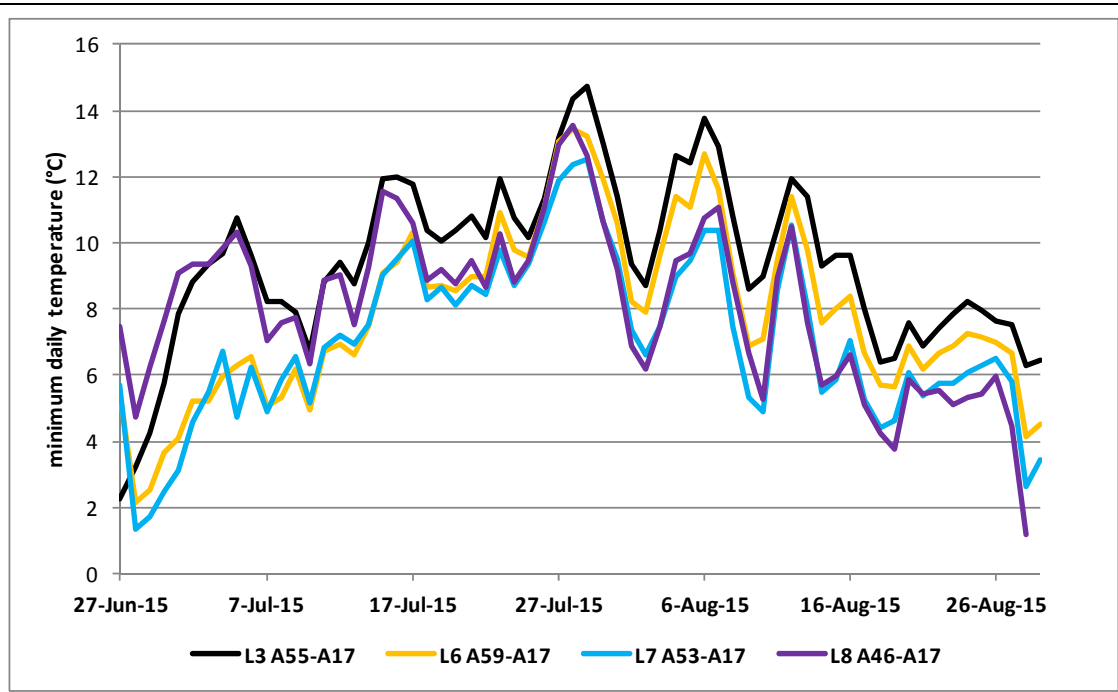


Figure 7-5. Minimum daily water temperature in four tributaries to Whale Tail Lake for the period June 27 – August 28, 2015.

## 8.0 PERIPHYTON MONITORING

### 8.1 Methods

Periphyton monitoring stations were established on Mammoth Lake, Whale Tail Lake, and Lake A53 (Figure 7-1). Stations were situated close to an accessible shore area, in water deep enough that the station would not become dry as water levels fell through the summer. The coordinates of each station were determined using a Garmin Oregon 650 gps, and a rectangular plot, approximately 2-3 m<sup>2</sup> in area, was established, marking each corner with flagging tape tied to a rock to ensure that the same location was examined and photographed over the course of the monitoring. Substrate type was characterized in each plot, following the Wentworth (1922) scale. Monitoring occurred when it corresponded with other field work being conducted in the vicinity, resulting in four monitoring occasions in Whale Tail Lake, two in Mammoth Lake, and three in Lake A53. Using the methods provided by Golder Associates Ltd., photographs of the substrate were taken and the following information was recorded during each monitoring event:

- date
- periphyton coverage (none 0%, sparse <5%, low 5-25%, moderate 25-75%, high >75%)
- colour of periphyton layer
- thickness (mm) of Periphyton layer
- water clarity and colour
- evenness of periphyton coverage over the broader surrounding area (even - patchy)

### 8.2 Results

**The latitude and longitude, substrate composition and macro-scale photograph numbers are provided in Table 8-1 and the periphyton observations and photograph numbers for each station and date are provided in**

**Table 8-2.** The photographs have been provided digitally. In all cases the periphyton was a spongy, non-filamentous mat that broke away in flat chunks when disturbed, and coverage was even in the vicinity of all of the plots on all occasions.

Table 8-1. Location of and substrate composition at the periphyton monitoring locations. The locations are shown in Figure 7-1.

Lake	Location	Latitude	Longitude	Substrate composition (%)				Photographs
				Large gravel	Small cobble	Large cobble	Boulder	
Whale Tail	Per-1	-96.688532	65.382087	0	40	60	0	4389, 4390
	Per-2	-96.693274	65.408335	0	20	75	5	4415
Mammoth	Per-3	-96.76458	65.395138	0	0	30	70	4441-4443
	Per-4	-96.721609	65.401235	0	0	20	80	4448-4450
Lake A53	Per-5	-96.676592	65.405969	10	70	20	0	4595, 4596

Table 8-2. Periphyton characteristics and numbers of the photographs that document the conditions. The locations are shown in Figure 7-1.

Lake	Location	Date (2015)	Periphyton characteristics			Photographs
			Cover (%)	Colour	Thickness (mm)	
Whale Tail	Per-1	July 26	50	olive	1-3	4382-4388
		August 4	>75	olive	1-5	4601-4605
		August 19	>75	olive-brown	1-5	4618-4625
		August 30	>75	brown	1-4	4767-4770
	Per-2	July 27	>75	olive	1-2	4412-4414
		August 4	>75	olive	1-2	4597-4600
		August 19	>75	olive	1-2	4626-4630
		August 30	>75	olive-brown	1-4	4782-4784
Mammoth Lake	Per-3	July 30	>75	olive	3-4	4437-4440
		August 25	>75	olive-brown	4-7	4678-4683
	Per-4	July 30	50	olive	1-2	4444-4447
		August 25	>75	olive-brown	1-2	4705-4709
Lake A53	Per-5	August 3	>75	brown	1	4591-4594
		August 20	>75	brown	1	27, 28
		August 31	>75	brown	1	4800, 4801



## 9.0 SUMMARY

In total, individuals of six fish species were captured during the 2014 and 2015 sampling. These were comprised of four large-bodied species (Lake Trout, Arctic Char, Round Whitefish and Burbot) and two small-bodied species (Slimy Sculpin and Ninespine Stickleback). Lake Trout were the most abundant in gill net catches and were captured in Mammoth, Whale Tail and Nemo Lakes and in seven of the smaller lakes (Table 6-1). Round Whitefish were captured in Mammoth and Whale Tail Lakes and in two of the smaller lakes (Table 6-1). Arctic Char were captured in Whale Tail Lake and in three of the smaller lakes. The Arctic Char are presumed to be land-locked, given the distance to a marine environment.

Netting catch per unit effort was low for all species. In Mammoth, Whale Tail and Nemo Lakes combined, average catch per unit effort in gill nets, calculated as the number of individuals captured per hour of soak time using a standard AEM gill net, was 0.5, 0.1 and 0.01 for Lake Trout, Round Whitefish and Arctic Char, respectively. Large mesh hoop nets set between June 19 and July 13, 2015, in areas where there was thought to be potential for fish movement between lakes caught one Lake Trout and one Arctic Char in 3000 hours of soak time. In total, electrofishing 1,978 m of lake shoreline resulted in the capture of 145 Ninespine Stickleback, 55 Slimy Sculpin, 2 juvenile Arctic Char and 3 juvenile salmonids, either Arctic Char or Lake Trout, which were not identified to species. There were, however, several isolated or nearly isolated small lakes and ponds in which no fish were captured. Most of these were located north of Whale Tail Lake.

Electrofishing effort on study area tributaries over the 2015 field season totalled 24,709 electroseconds and 3,569 m. The most abundant species in the catches was Ninespine Stickleback (n=469) followed by Slimy Sculpin (n=237). Low numbers of juvenile Arctic Char (n=13), juvenile Lake Trout (n=8), as well as one juvenile each of Round Whitefish and Burbot were captured in the tributaries. Juvenile Arctic Char were captured by electrofishing in five of the tributaries to Whale Tail Lake and juvenile Lake Trout were captured in three. Large minnow traps set in tributaries caught 9 Slimy Sculpin and 1 juvenile Round Whitefish in 2640 hours of soak time.

There was only an interstitial flow connection during the 2015 spring freshet between four of the larger tributary lakes (A21, A56, A60 and A65) and Whale Tail Lake. This was also the case for lakes A43 and A45 that drain to Mammoth Lake. The connection between Whale Tail and Mammoth Lake had only interstitial flow once water levels and flows subsided. This was also the case in a number of the connecting channels downstream from Mammoth Lake.

No Arctic Grayling were observed or captured in the study area. Their apparent absence is consistent with the paucity of suitable spawning habitat and absence of riverine adult habitat in the tributaries to Mammoth and Whale Tail Lake. Migrations by adults to and from downstream would be prevented by the absence of surface flow in several of the connecting channels except under freshet conditions.

## **10.0 LITERATURE CITED**

- Azimuth. 2010. Environmental Effects Monitoring (EEM): Cycle 1 Study Design, Meadowbank Division, Nunavut. Report prepared by Azimuth Consulting Group Inc., Vancouver, BC for Environment Canada, Edmonton, AB on behalf of Agnico-Eagle Mines Ltd., Baker Lake, NU. December, 2010.
- Azimuth. 2013. Aquatic Effects Monitoring Program – Core Receiving Environment Monitoring Program 2012, Meadowbank Gold Project. Report prepared by Azimuth Consulting Group Inc., Vancouver, BC for Agnico-Eagle Mines Ltd., Baker Lake, NU.
- BAER (Baseline Aquatic Ecosystem Report). 2005. A report prepared by Azimuth Consulting Group, Vancouver for Cumberland Resources Ltd. October, 2005.
- Jones, N.E., G.J. Scrimgeour, and W.M. Tonn. 2010. Fish species traits and communities in relation to a habitat template for Arctic rivers and streams. American Fisheries Society Symposium 73:000-000, 2010.
- McPhail, J.D. and C.C. Lindsey. 1970. Freshwater fishes of Northwestern Canada and Alaska. Bulletin 173. Fisheries Research Board of Canada. 381 p.
- Scott, W.B. and E.J. Crossman. 1973. Freshwater fishes of Canada. Bulletin 184. Fisheries Research Board of Canada. 966 p.
- Wentworth, C.K. 1922. A scale of grade and class terms for clastic sediments. J. Geol. 30: 377-392.

## **APPENDIX A – FISH SAMPLING DATA**



Table A 1. Hoop net number, location ID (refer to Figure 3-1) and coordinates, set and lift dates and times, direction of opening, and catch for large-mesh hoop nets set in 2015. Nets 1 and 6 had six m long wings. Nets 2, 3, 4 and 5 had 3 m long wings.

Net Number	Location ID	Latitude	Longitude	Water-course	Date Set	Time Set	Date Lifted	Time lifted	Soak Time (hours)	Opening facing	Catch
1	LHN1	65.392670	-96.770258	A16-A15	19-Jun	14:35	20-Jun	14:30	24	downstream	none
1	LHN1	65.392670	-96.770258	A16-A15	20-Jun	14:30	21-Jun	12:00	22	downstream	none
1	LHN1	65.392670	-96.770258	A16-A15	21-Jun	12:00	27-Jun	13:15	145	downstream	none
1	LHN1	65.392670	-96.770258	A16-A15	27-Jun	13:15	28-Jun	15:21	26	downstream	none
1	LHN1	65.392670	-96.770258	A16-A15	28-Jun	15:21	03-Jul	15:35	120	downstream	none
1	LHN1	65.392670	-96.770258	A16-A15	03-Jul	15:35	04-Jul	9:30	18	downstream	none
3	LHN1	65.392670	-96.770258	A16-A15	21-Jun	12:30	27-Jun	13:15	145	downstream	none
3	LHN1	65.392670	-96.770258	A16-A15	27-Jun	13:15	28-Jun	15:03	26	upstream	none
3	LHN1	65.392670	-96.770258	A16-A15	28-Jun	15:03	03-Jul	15:45	121	upstream	none
3	LHN1	65.392670	-96.770258	A16-A15	03-Jul	15:45	04-Jul	9:30	18	upstream	none
1	LHN3	65.403864	-96.709527	A17-A16	04-Jul	14:30	06-Jul	15:00	49	upstream	none
1	LHN3	65.403864	-96.709527	A17-A16	06-Jul	15:00	07-Jul	15:30	25	upstream	none
1	LHN3	65.403864	-96.709527	A17-A16	07-Jul	15:30	08-Jul	15:20	24	upstream	none
1	LHN3	65.403864	-96.709527	A17-A16	08-Jul	15:20	09-Jul	12:10	21	upstream	none
1	LHN3	65.403864	-96.709527	A17-A16	09-Jul	12:10	10-Jul	13:45	26	upstream	none
1	LHN3	65.403864	-96.709527	A17-A16	10-Jul	13:45	12-Jul	16:17	51	upstream	none
1	LHN3	65.403864	-96.709527	A17-A16	12-Jul	16:17	13-Jul	9:15	17	upstream	none
3	LHN3	65.403948	-96.709764	A17-A16	04-Jul	14:30	06-Jul	15:00	49	downstream	none
3	LHN3	65.403948	-96.709764	A17-A16	06-Jul	15:00	07-Jul	15:30	25	downstream	none
3	LHN3	65.403948	-96.709764	A17-A16	07-Jul	15:30	08-Jul	15:20	24	downstream	none
3	LHN3	65.403948	-96.709764	A17-A16	08-Jul	15:20	09-Jul	12:10	21	downstream	none
3	LHN3	65.403948	-96.709764	A17-A16	09-Jul	12:10	10-Jul	13:45	26	downstream	none
3	LHN3	65.403948	-96.709764	A17-A16	10-Jul	13:45	12-Jul	16:17	51	downstream	none

Net Number	Location ID	Latitude	Longitude	Water-course	Date Set	Time Set	Date Lifted	Time lifted	Soak Time (hours)	Opening facing	Catch
3	LHN3	65.403948	-96.709764	A17-A16	12-Jul	16:17	13-Jul	9:15	17	downstream	none
2	LHN2a	65.402724	-96.711557	A17-A16	19-Jun	15:10	20-Jun	14:45	24	downstream	none
2	LHN2a	65.402724	-96.711557	A17-A16	20-Jun	14:45	21-Jun	13:00	22	downstream	none
2	LHN2a	65.402724	-96.711557	A17-A16	21-Jun	13:00	27-Jun	13:15	144	downstream	none
2	LHN2a	65.402724	-96.711557	A17-A16	27-Jun	13:15	28-Jun	15:21	26	upstream	none
2	LHN2b	65.403052	-96.710704	A17-A16	28-Jun	15:21	29-Jun	7:40	16	upstream	none
2	LHN2b	65.403052	-96.710704	A17-A16	29-Jun	7:40	03-Jul	15:15	104	upstream	none
2	LHN2b	65.403052	-96.710704	A17-A16	03-Jul	15:15	06-Jul	14:50	72	upstream	none
2	LHN2b	65.403052	-96.710704	A17-A16	06-Jul	14:50	07-Jul	15:15	24	upstream	none
2	LHN2b	65.403052	-96.710704	A17-A16	07-Jul	15:15	08-Jul	15:15	24	upstream	none
2	LHN2b	65.403052	-96.710704	A17-A16	08-Jul	15:15	09-Jul	12:10	21	upstream	none
2	LHN2b	65.403052	-96.710704	A17-A16	09-Jul	12:10	10-Jul	14:00	26	upstream	none
2	LHN2b	65.403052	-96.710704	A17-A16	10-Jul	14:00	12-Jul	16:07	50	upstream	none
2	LHN2b	65.403052	-96.710704	A17-A16	12-Jul	16:07	13-Jul	9:30	17	upstream	none
4	LHN2a	65.402724	-96.711557	A17-A16	21-Jun	13:45	27-Jun	13:15	144	downstream	none
4	LHN2a	65.402724	-96.711557	A17-A16	27-Jun	13:15	28-Jun	15:03	26	downstream	none
4	LHN2b	65.403006	-96.710979	A17-A16	28-Jun	15:03	29-Jun	7:45	17	downstream	none
4	LHN2b	65.403006	-96.710979	A17-A16	29-Jun	7:45	03-Jul	15:17	104	downstream	none
4	LHN2b	65.403006	-96.710979	A17-A16	03-Jul	15:17	06-Jul	14:50	72	downstream	none
4	LHN2b	65.403006	-96.710979	A17-A16	06-Jul	14:50	07-Jul	15:15	24	downstream	none
4	LHN2b	65.403006	-96.710979	A17-A16	07-Jul	15:15	08-Jul	15:15	24	downstream	none
4	LHN2b	65.403006	-96.710979	A17-A16	08-Jul	15:15	09-Jul	12:10	21	downstream	none
4	LHN2b	65.403006	-96.710979	A17-A16	09-Jul	12:10	10-Jul	14:00	26	downstream	none
4	LHN2b	65.403006	-96.710979	A17-A16	10-Jul	14:00	12-Jul	16:07	50	downstream	none
4	LHN2b	65.403006	-96.710979	A17-A16	12-Jul	16:07	13-Jul	9:30	17	downstream	none

Net Number	Location ID	Latitude	Longitude	Water-course	Date Set	Time Set	Date Lifted	Time lifted	Soak Time (hours)	Opening facing	Catch
5	LHN5	65.394604	-96.677482	A55-A17	26-Jun	8:40	27-Jun	10:30	26	downstream	none
5	LHN5	65.394604	-96.677482	A55-A17	27-Jun	10:30	28-Jun	13:45	27	downstream	none
5	LHN5	65.394604	-96.677482	A55-A17	28-Jun	13:45	29-Jun	10:45	21	downstream	none
5	LHN5	65.394604	-96.677482	A55-A17	29-Jun	10:45	03-Jul	7:55	93	downstream	none
5	LHN5	65.394604	-96.677482	A55-A17	03-Jul	7:55	06-Jul	8:30	73	downstream	1 Lake Trout toothed in wing - 69 cm 1 Arctic Char caught in wing 27 cm
5	LHN5	65.394604	-96.677482	A55-A17	06-Jul	8:30	07-Jul	15:50	31	downstream	none
5	LHN5	65.394604	-96.677482	A55-A17	07-Jul	15:50	08-Jul	14:50	23	downstream	none
5	LHN5	65.394604	-96.677482	A55-A17	08-Jul	14:50	09-Jul	16:15	25	downstream	none
5	LHN5	65.394604	-96.677482	A55-A17	09-Jul	16:15	12-Jul	11:34	67	downstream	none
5	LHN5	65.394604	-96.677482	A55-A17	12-Jul	11:34	13-Jul	12:40	25	downstream	none
6	LHN4	65.384689	-96.699785	A18-A17	26-Jun	10:40	29-Jun	9:47	71	downstream	none
6	LHN4	65.384689	-96.699785	A18-A17	29-Jun	9:47	04-Jul	15:10	125	downstream	none
6	LHN4	65.384689	-96.699785	A18-A17	04-Jul	15:10	05-Jul	15:35	24	downstream	none
6	LHN4	65.384689	-96.699785	A18-A17	05-Jul	15:35	08-Jul	14:58	71	downstream	none
6	LHN4	65.384689	-96.699785	A18-A17	08-Jul	14:58	09-Jul	14:55	24	downstream	none
6	LHN4	65.384689	-96.699785	A18-A17	09-Jul	14:55	13-Jul	11:30	93	downstream	none



Table A 2. Gill net set, lift and catch data. Refer to figures in the body of the report for locations.

Waterbody	Set type	Location ID	Start depth	Start latitude	Start longitude	End depth	End latitude	End longitude	Set date	Set time	Lift date	Lift time	Lake Trout	Arctic Char	Round Whitefish	Burbot
A113	miscellaneous gill net	GN46	0.6	65.417648	-96.690075	0.5	65.418488	-96.689693	28-Aug-15	15:14	29-Aug-15	7:50	0	0	0	0
A18	miscellaneous gill net	GN37	1	65.383806	-96.713253	1.1	65.382809	-96.715195	22-Aug-15	12:45	22-Aug-15	15:03	0	0	0	0
A19	miscellaneous gill net	GN38	1	65.377131	-96.713333	1	65.376886	-96.716198	23-Aug-15	9:36	23-Aug-15	11:30	0	0	0	0
A20	miscellaneous gill net	GN39a	2.4	65.379587	-96.746692	7.8	65.378869	-96.749023	23-Aug-15	14:16	23-Aug-15	16:01	0	0	1	0
A20	overnight gill net	GN39b	2.4	65.379587	-96.746692	7.8	65.378869	-96.749023	23-Aug-15	16:20	24-Aug-15	8:07	11	0	5	0
A22	miscellaneous gill net	GN40	3.5	65.373967	-96.757500	6.7	65.373660	-96.760268	24-Aug-15	15:02	24-Aug-15	16:38	2	1	0	0
A45	miscellaneous gill net	GN45	2	65.384859	-96.744752	3	65.384002	-96.746927	28-Aug-15	10:50	28-Aug-15	12:49	0	0	0	0
A47	miscellaneous gill net	GN47	0.7	65.412776	-96.694540	1	65.413968	-96.695097	29-Aug-15	9:25	29-Aug-15	11:40	0	1	0	0
A49	miscellaneous gill net	GN48	2.5	65.410462	-96.699762	3.5	65.411405	-96.701695	29-Aug-15	13:27	29-Aug-15	15:58	0	0	0	0
A53	miscellaneous gill net	GN31	1.2	65.406759	-96.669336	2	65.406215	-96.672075	03-Aug-15	14:28	03-Aug-15	16:51	1	2	0	0
A55	miscellaneous gill net	GN44	0.8	65.396819	-96.671340	0.7	65.395737	-96.669831	27-Aug-15	15:57	28-Aug-15	8:07	5	0	0	1
A62	miscellaneous gill net	GN43	1.5	65.391819	-96.702106	3.3	65.390929	-96.703743	27-Aug-15	11:49	27-Aug-15	13:46	3	0	0	0
A63	miscellaneous gill net	GN36	4.2	65.388938	-96.717718	3.3	65.387855	-96.716076	22-Aug-15	8:31	22-Aug-15	10:07	1	0	0	0
A65	miscellaneous gill net	GN35	1	65.373144	-96.694364	1.5	65.373712	-96.696831	20-Aug-15	10:37	20-Aug-15	13:57	2	0	2	0
Mammoth Lake	2014 miscellaneous gill net	GN14-5	3.2	65.389745	-96.750904	3.5	65.391114	-96.751886	04-Sep-14	11:03	04-Sep-14	17:35	7	0	0	0
Mammoth Lake	2014 miscellaneous gill net	GN14-6	5.3	65.390281	-96.756683	2	65.391654	-96.757351	04-Sep-14	11:23	04-Sep-14	18:03	6	0	0	0
Mammoth Lake	miscellaneous gill net	GN41a	2.5	65.400782	-96.727100	5	65.400924	-96.730386	25-Aug-15	8:48	25-Aug-15	14:11	1	0	0	0
Mammoth Lake	miscellaneous gill net	GN42a	8	65.395395	-96.752570	5.3	65.395304	-96.755652	25-Aug-15	9:07	25-Aug-15	14:36	3	0	0	0
Mammoth Lake	overnight gill net	GN41b	2.5	65.400782	-96.727100	5	65.400924	-96.730386	25-Aug-15	14:27	26-Aug-15	8:09	10	0	4	0
Mammoth Lake	overnight gill net	GN42b	8	65.395395	-96.752570	5.3	65.395304	-96.755652	25-Aug-15	14:45	26-Aug-15	8:50	14	0	0	0
Mammoth Lake	short-set gill net	GN15	1.3	65.399001	-96.744166	4.2	65.398085	-96.742010	28-Jul-15	8:24	28-Jul-15	10:39	1	0	3	0
Mammoth Lake	short-set gill net	GN16	1.4	65.399447	-96.748510	7.2	65.398371	-96.750074	28-Jul-15	8:39	28-Jul-15	11:15	3	0	5	0
Mammoth Lake	short-set gill net	GN17	0.9	65.399489	-96.723543	3.3	65.400282	-96.725747	28-Jul-15	9:23	28-Jul-15	12:02	0	0	0	0
Mammoth Lake	short-set gill net	GN18	1.8	65.401677	-96.735628	2.3	65.400710	-96.733640	28-Jul-15	11:10	28-Jul-15	13:30	0	0	1	0
Mammoth Lake	short-set gill net	GN19	1.5	65.396002	-96.745847	4.7	65.396414	-96.748668	28-Jul-15	11:50	28-Jul-15	13:51	1	0	1	0
Mammoth Lake	short-set gill net	GN20	2.7	65.403152	-96.726912	3	65.402034	-96.728046	28-Jul-15	12:19	28-Jul-15	14:26	1	0	4	0
Mammoth Lake	short-set gill net	GN21	1.7	65.398226	-96.735355	6.7	65.399367	-96.736694	28-Jul-15	13:47	28-Jul-15	15:46	0	0	0	0
Mammoth Lake	short-set gill net	GN22	3.1	65.392852	-96.750834	4.7	65.392783	-96.753812	28-Jul-15	14:15	28-Jul-15	16:11	2	0	2	0
Mammoth Lake	short-set gill net	GN23	2.1	65.388788	-96.753937	4.5	65.389863	-96.755265	29-Jul-15	7:59	29-Jul-15	10:13	0	0	0	0
Mammoth Lake	short-set gill net	GN24	1.8	65.396210	-96.765103	5.5	65.396455	-96.762148	29-Jul-15	8:40	29-Jul-15	10:38	0	0	0	0
Mammoth Lake	short-set gill net	GN25	2.1	65.398015	-96.755425	4.3	65.397118	-96.757389	29-Jul-15	8:49	29-Jul-15	11:10	0	0	0	0
Mammoth Lake	short-set gill net	GN26	3.8	65.392535	-96.760530	2.4	65.392523	-96.757591	29-Jul-15	10:30	29-Jul-15	12:33	0	0	0	0
Mammoth Lake	short-set gill net	GN27	6.8	65.396505	-96.753644	6	65.395413	-96.755496	29-Jul-15	11:08	29-Jul-15	13:08	0	0	0	0
Mammoth Lake	short-set gill net	GN28	8.7	65.401212	-96.732046	6.3	65.400005	-96.732679	29-Jul-15	11:36	29-Jul-15	13:36	0	0	0	0
Nemo Lake	2014 miscellaneous gill net	GN14-1	4.2	65.416952	-96.713128	2.3	65.416430	-96.710065	06-Sep-14	11:16	06-Sep-14	17:47	4	0	0	0

Waterbody	Set type	Location ID	Start depth	Start latitude	Start longitude	End depth	End latitude	End longitude	Set date	Set time	Lift date	Lift time	Lake Trout	Arctic Char	Round Whitefish	Burbot
Nemo Lake	2014 miscellaneous gill net	GN14-2	15	65.424743	-96.701119	17	65.424159	-96.698448	06-Sep-14	11:40	06-Sep-14	18:24	11	0	0	0
Nemo Lake	miscellaneous gill net	GN29a	3.4	65.424979	-96.691333	5.8	65.424018	-96.693733	02-Aug-15	8:00	02-Aug-15	11:20	2	0	0	0
Nemo Lake	miscellaneous gill net	GN29b	3.4	65.424979	-96.691333	5.8	65.424018	-96.693733	02-Aug-15	11:20	02-Aug-15	14:58	1	0	0	0
Nemo Lake	miscellaneous gill net	GN30a	16.7	65.426865	-96.702389	2.4	65.425660	-96.704009	02-Aug-15	8:22	02-Aug-15	11:50	1	0	0	0
Nemo Lake	miscellaneous gill net	GN30b	16.7	65.426865	-96.702389	2.4	65.425660	-96.704009	02-Aug-15	11:50	02-Aug-15	15:28	3	0	0	0
Whale Tail Lake	2014 miscellaneous gill net	GN14-3	1.2	65.405026	-96.701889	6	65.404261	-96.699056	05-Sep-14	13:39	05-Sep-14	20:00	4	1	0	0
Whale Tail Lake	2014 miscellaneous gill net	GN14-4	8.5	65.406093	-96.699462	5.5	65.405514	-96.696848	05-Sep-14	13:26	05-Sep-14	19:44	1	0	0	0
Whale Tail Lake	miscellaneous gill net	GN33a	3.3	65.393862	-96.688366	4.9	65.392600	-96.687569	18-Aug-15	9:34	18-Aug-15	14:43	0	0	0	0
Whale Tail Lake	miscellaneous gill net	GN34a	8.3	65.391789	-96.686985	3.2	65.392956	-96.688082	19-Aug-15	9:16	19-Aug-15	13:23	1	0	0	0
Whale Tail Lake	miscellaneous gill net	GN34b	8.3	65.391789	-96.686985	3.2	65.392956	-96.688082	19-Aug-15	13:40	19-Aug-15	16:37	0	0	0	0
Whale Tail Lake	overnight gill net	GN32	2.1	65.394058	-96.688595	6.3	65.392843	-96.687670	17-Aug-15	16:43	18-Aug-15	8:45	15	0	1	0
Whale Tail Lake	overnight gill net	GN33b	3.3	65.393862	-96.688366	4.9	65.392600	-96.687569	18-Aug-15	14:39	19-Aug-15	8:43	9	0	1	0
Whale Tail Lake	short-set gill net	GN01	1.5	65.399818	-96.684135	1.1	65.400431	-96.686871	24-Jul-15	9:23	24-Jul-15	11:21	0	0	0	0
Whale Tail Lake	short-set gill net	GN02	1.5	65.394034	-96.678016	2.4	65.394661	-96.680711	24-Jul-15	11:53	24-Jul-15	14:16	0	1	0	0
Whale Tail Lake	short-set gill net	GN03	4	65.388220	-96.688720	7.5	65.389392	-96.691743	24-Jul-15	14:10	24-Jul-15	16:05	0	0	0	0
Whale Tail Lake	short-set gill net	GN04	1	65.382051	-96.687806	7	65.383325	-96.689765	24-Jul-15	15:19	24-Jul-15	17:16	0	0	0	0
Whale Tail Lake	short-set gill net	GN05	1.5	65.385880	-96.695145	5.1	65.386787	-96.697035	25-Jul-15	9:35	25-Jul-15	11:54	0	0	0	0
Whale Tail Lake	short-set gill net	GN06	5.5	65.387701	-96.695769	0.6	65.388262	-96.698160	25-Jul-15	9:56	25-Jul-15	12:12	0	0	0	0
Whale Tail Lake	short-set gill net	GN07	8.8	65.390880	-96.685918	5.8	65.392023	-96.687253	25-Jul-15	11:23	25-Jul-15	14:07	1	0	0	0
Whale Tail Lake	short-set gill net	GN08	2	65.397723	-96.692555	4.7	65.398602	-96.690395	25-Jul-15	12:37	25-Jul-15	14:54	0	0	0	0
Whale Tail Lake	short-set gill net	GN09	4.2	65.402652	-96.699378	10.3	65.403331	-96.696805	25-Jul-15	12:48	25-Jul-15	15:38	2	0	1	0
Whale Tail Lake	short-set gill net	GN10	1.3	65.404365	-96.705779	4.3	65.404824	-96.708425	25-Jul-15	15:18	25-Jul-15	17:30	2	0	2	0
Whale Tail Lake	short-set gill net	GN11	1	65.408242	-96.693524	2.3	65.408855	-96.696033	25-Jul-15	15:34	25-Jul-15	18:07	0	0	0	0
Whale Tail Lake	short-set gill net	GN12	7.4	65.401087	-96.692770	3.5	65.402197	-96.694221	26-Jul-15	7:34	26-Jul-15	9:54	0	0	0	0
Whale Tail Lake	short-set gill net	GN13	11.2	65.403443	-96.696530	4.7	65.404775	-96.695607	26-Jul-15	7:46	26-Jul-15	10:08	0	0	0	0
Whale Tail Lake	short-set gill net	GN14	11.5	65.394851	-96.687671	6.3	65.396062	-96.687896	26-Jul-15	8:04	26-Jul-15	10:27	0	0	0	0

Table A 3. Capture location, net number and date of capture, mesh size, length and weight, liver weight, gonad weight, sex (male=m, female=f), maturity (m=mature, i=immature), age determined from fin rays and otoliths, and number of the tag applied to released individuals for fish captured in gill nets in 2015.

Waterbody name or code	Fish #	Net set # and lift	Date of lift	Mesh size (mm)	Species	Fork length (mm)	Weight (g)	Liver weight (g)	Gonad weight (g)	Sex	Maturity	Fin-ray age	Otolith age	Ext. DELT/ Parasites	Tag applied
Mammoth Lake	1	15	28-Jul-15	51	round whitefish	345	429	3.4	2	f	i	na	na	none	
Mammoth Lake	2	15	28-Jul-15	51	lake trout	497	860					na	na	none	0359
Mammoth Lake	3	15	28-Jul-15	51	round whitefish	342	435.2	3.2	1.3	m	i	na	na	none	
Mammoth Lake	4	15	28-Jul-15	38	round whitefish	272	198.8	1.8	na	m	i	na	na	none	
Mammoth Lake	5	16	28-Jul-15	76	lake trout	639	2920					na	na	none	0360
Mammoth Lake	6	16	28-Jul-15	51	lake trout	620	2570					na	na	none	0361
Mammoth Lake	7	16	28-Jul-15	51	lake trout	392	660					na	na	none	0362
Mammoth Lake	8	16	28-Jul-15	51	round whitefish	384	641.3	7	15.4	f	m	na	na	none	
Mammoth Lake	9	16	28-Jul-15	51	round whitefish	350	467.7	2.9	0.8	m	m	na	na	none	
Mammoth Lake	10	16	28-Jul-15	51	round whitefish	290	230.9	2.6	na	m	i	na	na	none	
Mammoth Lake	11	16	28-Jul-15	51	round whitefish	270	201.4	1.6	1.1	f	m	na	na	none	
Mammoth Lake	12	16	28-Jul-15	38	round whitefish	252	158.4	1	na	m	i	na	na	none	
Mammoth Lake	13	19	28-Jul-15	38	lake trout	752	3870					na	na	none	0363
Mammoth Lake	14	19	28-Jul-15	38	round whitefish	359	460	4.4	11.2	f	m	na	na	none	
Mammoth Lake	15	20	28-Jul-15	na	lake trout	311	323					na	na	none	0364
Mammoth Lake	16	20	28-Jul-15	na	round whitefish	310	333					na	na	none	0365
Mammoth Lake	17	20	28-Jul-15	na	round whitefish	284	238					na	na	none	
Mammoth Lake	18	20	28-Jul-15	na	round whitefish	296	256					na	na	none	
Mammoth Lake	19	20	28-Jul-15	na	round whitefish	328	362	2.7	4.9	f	m	na	na	none	
Mammoth Lake	20	21	28-Jul-15	51	round whitefish	353	281	4.2	1.6	m	i	na	na	none	
Mammoth Lake	21	21	28-Jul-15	38	lake trout	361	460					na	na	none	0366
Mammoth Lake	22	22	28-Jul-15	76	round whitefish	na	na					na	na	none	
Mammoth Lake	23	22	28-Jul-15	76	lake trout	414	675					na	na	none	
Mammoth Lake	24	22	28-Jul-15	38	round whitefish	na	na					na	na	none	
Mammoth Lake	25	22	28-Jul-15	38	lake trout	214	97					na	na	none	
Mammoth Lake	26	27	29-Jul-15	51	lake trout	342	475	6.6	na	m	i	7	na	none	
Nemo Lake	27	29a	02-Aug-15	102	lake trout	511	1290					na	na	none	0367
Nemo Lake	28	29a	02-Aug-15	102	lake trout	500	1290					na	na	none	0368
Nemo Lake	29	30a	02-Aug-15	76	lake trout	425	950					na	na	none	0369
Nemo Lake	30	29b	02-Aug-15	102	lake trout	483	1120					na	na	none	0370
Nemo Lake	31	30b	02-Aug-15	76	lake trout	800	7140					na	na	none	0371
Nemo Lake	32	30b	02-Aug-15	102	lake trout	828	7050					na	na	none	0372
Nemo Lake	33	30b	02-Aug-15	102	lake trout	612	2200	13.1	19.5	f	m	na	na	none	
A53	34	31	03-Aug-15	51	arctic char	433	970					na	na	none	0374

Waterbody name or code	Fish #	Net set # and lift	Date of lift	Mesh size (mm)	Species	Fork length (mm)	Weight (g)	Liver weight (g)	Gonad weight (g)	Sex	Maturity	Fin-ray age	Otolith age	Ext. DELT/ Parasites	Tag applied
A53	35	31	03-Aug-15	51	arctic char	515	1290					na	na	none	
A53	36	31	03-Aug-15	51	lake trout	580	2200					na	na	none	0375
Whale Tail Lake	37	7	25-Jul-15	76	lake trout	390	660					na	na	none	0352
Whale Tail Lake	38	9	25-Jul-15	51	lake trout	641	2710					na	na	none	0354
Whale Tail Lake	39	9	25-Jul-15	51	lake trout	880	8000					na	na	none	0353
Whale Tail Lake	40	9	25-Jul-15	51	round whitefish	411	775					na	na	none	
Whale Tail Lake	41	10	25-Jul-15	76	round whitefish	332	400					na	na	none	
Whale Tail Lake	42	10	25-Jul-15	51	round whitefish	388	590					na	na	none	0357
Whale Tail Lake	43	10	25-Jul-15	51	lake trout	263	170					na	na	none	0358
Whale Tail Lake	44	10	25-Jul-15	51	lake trout	355	440					na	na	none	
Whale Tail Lake	45	2	24-Jul-15	51	arctic char	453	780					na	na	none	0351
Whale Tail Lake	na	2	24-Jul-15	na	arctic char	510	780					na	na	none	0351
Whale Tail Lake	46	32	18-Aug-15	126	lake trout	568	1830	14	15.2	f	m	28	28	none	
Whale Tail Lake	47	32	18-Aug-15	102	lake trout	661	3110	22.2	3.3	m	m	26	24	none	
Whale Tail Lake	48	32	18-Aug-15	102	lake trout	581	2210	20	20.4	f	m	25	27	none	
Whale Tail Lake	49	32	18-Aug-15	76	lake trout	608	2230	35.4	194	f	m	25	26	none	
Whale Tail Lake	50	32	18-Aug-15	76	lake trout	481	1090		1	m	i	24	25	none	
Whale Tail Lake	51	32	18-Aug-15	76	round whitefish	na	na					na	na	na	
Whale Tail Lake	52	32	18-Aug-15	76	lake trout	445	1130	9.7	22	m	m	15	15	none	
Whale Tail Lake	53	32	18-Aug-15	76	lake trout	472	970	5.3	1	m	i	18	18	none	
Whale Tail Lake	54	32	18-Aug-15	76	lake trout	424	1060	14	130.1	f	m	20	22	none	
Whale Tail Lake	55	32	18-Aug-15	76	lake trout	396	778	11.3	91.3	f	m	14	16	none	
Whale Tail Lake	56	32	18-Aug-15	51	lake trout	407	775	5	25.1	m	m	16	23	none	
Whale Tail Lake	57	32	18-Aug-15	51	lake trout	388	607	4	34.5	m	m	12	13	none	
Whale Tail Lake	58	32	18-Aug-15	51	lake trout	469	987	11.5	0.7	m	i	14	18	none	
Whale Tail Lake	59	32	18-Aug-15	51	lake trout	380	655	3.6	15.6	m	m	11	12	none	
Whale Tail Lake	60	32	18-Aug-15	51	lake trout	430	687	6.1	4.5	f	m	12	13	none	
Whale Tail Lake	61	33b	19-Aug-15	25	lake trout	860	7320	55.6	371.4	m	m	39	44	none	
Whale Tail Lake	62	33b	19-Aug-15	38	lake trout	585	2110	14.6	74.7	m	m	22	26	none	
Whale Tail Lake	63	33b	19-Aug-15	38	lake trout	475	1020	6.7	25	m	m	20	25	none	
Whale Tail Lake	64	33b	19-Aug-15	38	lake trout	410	745	5.9	8.9	f	m	22	25	none	
Whale Tail Lake	65	33b	19-Aug-15	51	lake trout	423	693	5.3	3.6	f	m	11	14	none	
Whale Tail Lake	66	33b	19-Aug-15	51	lake trout	335	427	3.3		m	i	11	12	none	
Whale Tail Lake	67	33b	19-Aug-15	76	round whitefish	na	na					na	na	na	
Whale Tail Lake	68	33b	19-Aug-15	102	lake trout	319	348	2.5		m	i	9	9	none	
Whale Tail Lake	69	33b	19-Aug-15	102	lake trout	159	37.4	0.5		u	i	4	na	none	

Waterbody name or code	Fish #	Net set # and lift	Date of lift	Mesh size (mm)	Species	Fork length (mm)	Weight (g)	Liver weight (g)	Gonad weight (g)	Sex	Maturity	Fin-ray age	Otolith age	Ext. DELT/ Parasites	Tag applied
Whale Tail Lake	70	34b	19-Aug-15	51	lake trout	390	672	9.6	71	f	r	15	19	none	
A65	71	35	20-Aug-15	38	round whitefish	na	na					na	na	na	
A65	72	35	20-Aug-15	38	round whitefish	na	na					na	na	na	
A65	73	35	20-Aug-15	51	lake trout	na	na					na	na	na	
A65	74	35	20-Aug-15	51	lake trout	na	na					na	na	na	
A63	75	36	22-Aug-15	38	lake trout	na	na					na	na	na	
A20	76	39a	23-Aug-15	25	round whitefish	137	na					na	na	na	
A20	77	39b	24-Aug-15	76	round whitefish	na	na					na	na	na	
A20	78	39b	24-Aug-15	76	lake trout	349	420					na	na	none	0376
A20	79	39b	24-Aug-15	51	lake trout	549	1920					na	na	none	0377
A20	80	39b	24-Aug-15	51	lake trout	378	620					na	na	none	0378
A20	81	39b	24-Aug-15	51	lake trout	351	430					na	na	none	0379
A20	82	39b	24-Aug-15	51	lake trout	545	1980					na	na	none	0380
A20	83	39b	24-Aug-15	51	round whitefish	365	510					na	na	none	
A20	84	39b	24-Aug-15	51	round whitefish	369	530					na	na	none	
A20	85	39b	24-Aug-15	51	lake trout	381	500					12	12	none	
A20	86	39b	24-Aug-15	51	lake trout	305	280					na	na	none	0381
A20	87	39b	24-Aug-15	51	round whitefish	278	210					na	na	none	
A20	88	39b	24-Aug-15	51	lake trout	369	570					12	11	none	
A20	89	39b	24-Aug-15	38	round whitefish	230	120					na	na	none	
A20	90	39b	24-Aug-15	38	lake trout	189	80					3	3	none	
A20	91	39b	24-Aug-15	38	lake trout	250	170					na	na	none	
A20	92	39b	24-Aug-15	38	lake trout	366	550					na	na	none	0382
A22	93	40	24-Aug-15	51	lake trout	445	870					na	na	none	0383
A22	94	40	24-Aug-15	51	lake trout	na	na					na	na	na	
A22	95	40	24-Aug-15	28	arctic char	376	520					na	na	none	0384
Mammoth Lake	96	41a	25-Aug-15	38	lake trout	na	na					na	na	na	
Mammoth Lake	97	42a	25-Aug-15	51	lake trout	370	510	3.2	4.5	f	m	13	13	none	
Mammoth Lake	98	42a	25-Aug-15	51	lake trout	369	501	4	6.1	f	m	12	13	none	
Mammoth Lake	99	42a	25-Aug-15	51	lake trout	373	550	6.2	48.3	f	m	9	11	none	
Mammoth Lake	100	41b	26-Aug-15	126	lake trout	363	542	4.1	13	m	m	9	na	none	
Mammoth Lake	101	41b	26-Aug-15	76	lake trout	343	460	2.6	5.7	f	m	9	9	none	
Mammoth Lake	102	41b	26-Aug-15	76	lake trout	353	433	2.3	2	f	m	9	10	none	
Mammoth Lake	103	41b	26-Aug-15	76	lake trout	373	474	3.6	12	f	m	13	16	none	
Mammoth Lake	104	41b	26-Aug-15	76	round whitefish	430	763					na	na	none	
Mammoth Lake	105	41b	26-Aug-15	76	lake trout	385	612	3.5	12.1	f	m	10	11	none	



Waterbody name or code	Fish #	Net set # and lift	Date of lift	Mesh size (mm)	Species	Fork length (mm)	Weight (g)	Liver weight (g)	Gonad weight (g)	Sex	Maturity	Fin-ray age	Otolith age	Ext. DELT/ Parasites	Tag applied
Mammoth Lake	106	41b	26-Aug-15	76	lake trout	395	692	9.3	63	f	m	11	12	none	
Mammoth Lake	107	41b	26-Aug-15	76	round whitefish	390	596					na	na	none	
Mammoth Lake	108	41b	26-Aug-15	76	lake trout	351	474	2.2	8.5	m	m	8	na	none	
Mammoth Lake	109	41b	26-Aug-15	76	round whitefish	na	na					na	na	none	
Mammoth Lake	110	41b	26-Aug-15	76	lake trout	346	478	7.6	45	f	m	9	10	none	
Mammoth Lake	111	41b	26-Aug-15	51	lake trout	365	504	2.8	14.2	m	m	12	12	none	
Mammoth Lake	112	41b	26-Aug-15	51	lake trout	365	504	7.1	5.2	f	m	13	13	none	
Mammoth Lake	113	41b	26-Aug-15	51	round whitefish	na	na					na	na	none	
Mammoth Lake	114	42b	26-Aug-15	126	lake trout	590	2110	10.9	2.3	m	m	24	24	none	
Mammoth Lake	115	42b	26-Aug-15	76	lake trout	369	511	2.8	12.3	m	m	12	12	none	
Mammoth Lake	116	42b	26-Aug-15	76	lake trout	354	472	3.2	11.1	m	m	12	13	none	
Mammoth Lake	117	42b	26-Aug-15	76	lake trout	366	534	2.1		m	i	13	13	none	
Mammoth Lake	118	42b	26-Aug-15	76	lake trout	316	319	1.6		m	i	10	10	none	
Mammoth Lake	119	42b	26-Aug-15	76	lake trout	290	269	2.5		m	i	8	8	none	
Mammoth Lake	120	42b	26-Aug-15	76	lake trout	290	287	2.8	0.7	f	i	8	8	none	
Mammoth Lake	121	42b	26-Aug-15	51	lake trout	285	239	1.7		u	i	8	8	none	
Mammoth Lake	122	42b	26-Aug-15	51	lake trout	254	181	1.5	0.2	u	i	6	6	none	
Mammoth Lake	123	42b	26-Aug-15	51	lake trout	215	96.2	0.6		u	i	5	5	none	
Mammoth Lake	124	42b	26-Aug-15	38	lake trout	700	4670	51.5	630	f	m	32	37	none	
Mammoth Lake	125	42b	26-Aug-15	38	lake trout	176	50.1					4	na	none	
Mammoth Lake	126	42b	26-Aug-15	38	lake trout	218	111	0.5		u	i	6	5	none	
Mammoth Lake	127	42b	26-Aug-15	38	lake trout	na	na					na	na	na	
A62	129	43	27-Aug-15	102	lake trout	434	870					na	na	none	0385
A62	130	43	27-Aug-15	102	lake trout	440	980			f	m	na	na	none	0386
A62	131	43	27-Aug-15	102	lake trout	413	760					na	na	none	
A55	132	44	28-Aug-15	51	lake trout	267	210					na	na	none	
A55	133	44	28-Aug-15	51	lake trout	278	240					na	na	none	
A55	134	44	28-Aug-15	38	burbot	na	na					na	na	na	
A55	135	44	28-Aug-15	38	lake trout	181	na					na	na	none	
A55	136	44	28-Aug-15	38	lake trout	190	80					na	na	none	
A55	137	44	28-Aug-15	25	lake trout	127	na					na	na	none	
A47	138	47	29-Aug-15	51	arctic char	283	110					na	na	none	0388

Table A 4. Waterbody, net set ID, species, fork length and weight of fish captured by gill netting in 2014.

Waterbody	Net set ID	Species	Fork length (mm)	Weight (g)
Nemo Lake	GN14-1	lake trout	879	8510
Nemo Lake	GN14-1	lake trout	639	2580
Nemo Lake	GN14-1	lake trout	430	840
Nemo Lake	GN14-1	lake trout	855	8140
Nemo Lake	GN14-2	lake trout	478	1280
Nemo Lake	GN14-2	lake trout	395	750
Nemo Lake	GN14-2	lake trout	472	1300
Nemo Lake	GN14-2	lake trout	481	1180
Nemo Lake	GN14-2	lake trout	520	1520
Nemo Lake	GN14-2	lake trout	766	5290
Nemo Lake	GN14-2	lake trout	878	5840
Nemo Lake	GN14-2	lake trout	678	3100
Nemo Lake	GN14-2	lake trout	540	1600
Nemo Lake	GN14-2	lake trout	476	1310
Nemo Lake	GN14-2	lake trout	465	1220
Whale Tail Lake	GN14-3	Arctic char	424	850
Whale Tail Lake	GN14-3	lake trout	736	4450
Whale Tail Lake	GN14-3	lake trout	646	2940
Whale Tail Lake	GN14-3	lake trout	500	1190
Whale Tail Lake	GN14-3	lake trout	510	1180
Whale Tail Lake	GN14-4	lake trout	570	1790
Mammoth Lake	GN14-5	lake trout	700	3670
Mammoth Lake	GN14-5	lake trout	705	3480
Mammoth Lake	GN14-5	lake trout	629	2680
Mammoth Lake	GN14-5	lake trout	619	2310
Mammoth Lake	GN14-5	lake trout	464	1240
Mammoth Lake	GN14-6	lake trout	323	410
Mammoth Lake	GN14-6	lake trout	305	350
Mammoth Lake	GN14-6	lake trout	427	760
Mammoth Lake	GN14-6	lake trout	850	6200
Mammoth Lake	GN14-6	lake trout	255	170

Table A 5. Lake electrofishing locations, dates, effort, catches and dominant substrates at the sampling locations. All Lake Trout and Arctic Char were juveniles. Juvenile salmonids are individuals that were released and could not be identified to species in the field.

waterbody / watercourse	location ID	Date (2015)	Start latitude	Start longitude	distance (m)	e-seconds	Nine- spine Stickle- back	Slimy Sculpin	Lake Trout	Arctic Char	juvenile salmonid	dominant substrates
Whale Tail	EF-L1	26-Jul	65.408307	-96.693163	25	195	0	0	0	0	0	cobble
Whale Tail	EF-L2	26-Jul	65.404024	-96.706512	25	458	11	1	0	0	0	cobble/boulder
Whale Tail	EF-L3	26-Jul	65.402524	-96.700425	25	616	12	1	0	0	0	cobble/boulder
Whale Tail	EF-L4	26-Jul	65.397592	-96.693160	25	264	0	2	0	2	2	sand/gravel/cobble
Whale Tail	EF-L5	26-Jul	65.388576	-96.685952	25	248	3	4	0	0	0	gravel/cobble/few boulders
Whale Tail	EF-L6	26-Jul	65.393346	-96.677342	25	755	15	6	0	0	0	boulder/cobble
Whale Tail	EF-L7	27-Jul	65.402980	-96.692034	25	287	11	0	0	0	0	cobble/boulder
Whale Tail	EF-L8	27-Jul	65.401038	-96.683590	25	180	1	0	0	0	0	cobble/some boulder
Whale Tail	EF-L9	27-Jul	65.382070	-96.688423	25	170	0	0	0	0	0	cobble
Whale Tail	EF-L10	27-Jul	65.385106	-96.698296	25	230	2	0	0	0	0	cobble/gravel/boulder
Mammoth	EF-L11	29-Jul	65.400198	-96.742841	25	464	4	1	0	0	0	peat/cobble/gravel
Mammoth	EF-L12	29-Jul	65.401025	-96.739563	25	357	1	0	0	0	0	cobble/boulder/peat
Mammoth	EF-L13	29-Jul	65.402013	-96.725795	25	441	15	1	0	0	0	cobble/gravel/peat/boulder
Mammoth	EF-L14	29-Jul	65.402580	-96.725815	25	445	14	0	0	0	0	cobble/gravel/boulder/peat/ soil
Mammoth	EF-L15	30-Jul	65.401459	-96.721846	25	448	1	4	0	0	0	peat/cobble/boulder
Mammoth	EF-L16	30-Jul	65.401453	-96.721162	25	417	2	2	0	0	0	peat/cobble/boulder
Mammoth	EF-L17	30-Jul	65.399949	-96.721210	25	344	2	0	0	0	0	cobble/boulder/peat
Mammoth	EF-L18	30-Jul	65.399708	-96.721674	25	219	1	2	0	0	0	cobble/boulder/peat
Mammoth	EF-L19	30-Jul	65.389346	-96.760241	25	455	0	2	0	0	1	cobble/boulder
Mammoth	EF-L20	30-Jul	65.395107	-96.765136	25	332	1	1	0	0	0	cobble/boulder/peat

waterbody / watercourse	location ID	Date (2015)	Start latitude	Start longitude	distance (m)	e-seconds	Nine- spine Stickle- back	Slimy Sculpin	Lake Trout	Arctic Char	juvenile salmonid	dominant substrates
A53	EF-L21	01-Aug	65.405909	-96.666885	150	930	0	0	0	0	0	peats with protruding rocks and graminoid shoreline
A54	EF-L22	01-Aug	65.409510	-96.659912	40	301	0	0	0	0	0	na
A-P21	EF-L23	01-Aug	65.412196	-96.671690	25	372	0	0	0	0	0	boulder/cobble with some peat
A52	EF-L24	01-Aug	65.409306	-96.674894	34	360	0	0	0	0	0	boulder/cobble and peat with graminoid along shore.
A51	EF-L25	01-Aug	65.409886	-96.678449	44	200	0	0	0	0	0	cobble/boulder
A50	EF-L26	01-Aug	65.411624	-96.681647	54	284	0	0	0	0	0	boulder/cobble with graminoid vegetation along 80% of shoreline
A113	EF-L27	01-Aug	65.417182	-96.690260	31	68	1	0	0	0	0	na
A-P38	EF-L28	01-Aug	65.415746	-96.694860	55	306	1	0	0	0	0	detritus with some boulder/cobble
A-P18	EF-L29	01-Aug	65.417099	-96.695154	33	130	0	0	0	0	0	detritus with some boulder/cobble/gravel. Anaerobic beneath top layer of substrate
C42	EF-L30	01-Aug	65.416955	-96.699902	40	207	0	0	0	0	0	boulder/cobble
A-P51	EF-L31	01-Aug	65.415578	-96.700354	20	98	0	0	0	0	0	pelagic inverts observed
A-P33	EF-L32	01-Aug	65.414962	-96.699182	30	170	0	0	0	0	0	cobble/boulder. Very shallow
A-P37	EF-L33	01-Aug	65.414846	-96.700462	21	155	0	0	0	0	0	boulder/cobble. Very shallow.
C40	EF-L34	01-Aug	65.414989	-96.702009	45	181	0	0	0	0	0	cobble/gravel/boulder. Shallow, but deeper area to south
A-P49	EF-L35	01-Aug	65.413640	-96.701340	20	126	0	0	0	0	0	boulder/cobble. Isolated on bedrock

waterbody / watercourse	location ID	Date (2015)	Start latitude	Start longitude	distance (m)	e-seconds	Nine- spine Stickle- back	Slimy Sculpin	Lake Trout	Arctic Char	juvenile salmonid	dominant substrates
A49	EF-L36	01-Aug	65.412482	-96.704629	93	580	0	0	0	0	0	bedrock/cobble/boulder with graminoid patches.
A-P51	EF-L37	01-Aug	65.408414	-96.688723	88	668	0	0	0	0	0	most is shallow but may be up to 1.5 m max depth in small area
A53	EF-L38	20-Aug	65.406061	-96.676669	69	404	2	0	0	0	0	cobble/gravel/peat/boulder
A65	EF-L39	21-Aug	65.371734	-96.695557	36	342	3	6	0	0	0	na
A63	EF-L40	22-Aug	65.388957	-96.715819	51	332	0	3	0	0	0	boulder/cobble
A18	EF-L41	22-Aug	65.382344	-96.705942	54	483	16	3	0	0	0	na
A19	EF-L42	23-Aug	65.377185	-96.717139	49	437	7	1	0	0	0	na
A45	EF-L43	24-Aug	65.383594	-96.748582	47	239	3	0	0	0	0	boulder
A20	EF-L44	24-Aug	65.380931	-96.752270	43	324	0	0	0	0	0	na
A22	EF-L45	24-Aug	65.374540	-96.759132	45	409	1	10	0	0	0	na
A55	EF-L46	28-Aug	65.395661	-96.667459	111	417	0	2	0	0	0	cobble/boulder/peat
A113	EF-L47	28-Aug	65.418406	-96.691724	33	184	15	0	0	0	0	cobble/gravel/peat
A47	EF-L48	28-Aug	65.415275	-96.693228	51	244	>100	0	0	0	0	na
A49	EF-L49	29-Aug	65.412019	-96.701603	66	313	0	3	0	0	0	na



Table A 6. Standard minnow trap set locations, date and time of lifts and sets, soak times, depths, substrate and catches.

Waterbody	Location ID	Latitude	Longitude	Date Set (2015)	Time Set	Date Lifted (2015)	Time lifted	Soak Time (hours)	Depth	Substrate	Slimy Sculpin	Ninespine Stickleback
Whale Tail	SMT1	65.385682	-96.693709	25-Jul	10:08	26-Jul	9:04	22.93	0.5	boulder	0	0
Whale Tail	SMT2	65.385370	-96.698520	25-Jul	10:37	26-Jul	9:10	22.55	0.7	boulder	0	0
Whale Tail	SMT3	65.386642	-96.698668	25-Jul	10:39	26-Jul	9:14	22.58	0.7	boulder	0	0
Whale Tail	SMT4	65.388648	-96.696584	25-Jul	10:43	26-Jul	10:53	24.17	0.7	boulder	0	0
Whale Tail	SMT5	65.399344	-96.683697	25-Jul	10:55	26-Jul	11:20	24.42	0.7	cobble	0	0
Whale Tail	SMT6	65.394644	-96.677961	25-Jul	11:01	26-Jul	11:07	24.10	0.7	boulder	0	0
Whale Tail	SMT7	65.388146	-96.687963	25-Jul	11:09	26-Jul	10:59	23.83	0.7	cobble/boulder	0	0
Whale Tail	SMT8	65.382286	-96.688790	25-Jul	11:31	26-Jul	8:17	20.77	1.7	boulder/cobble	0	0
Whale Tail	SMT9	65.391694	-96.689627	25-Jul	17:08	26-Jul	10:44	17.60	0.7	cobble/boulder	0	0
Whale Tail	SMT10	65.397849	-96.693197	25-Jul	17:17	26-Jul	11:27	18.17	0.8	sand	1	0
Whale Tail	SMT11	65.401774	-96.699048	25-Jul	17:22	26-Jul	11:37	18.25	1.4	boulder	0	0
Whale Tail	SMT12	65.404388	-96.706044	25-Jul	17:46	26-Jul	11:45	17.98	1.5	boulder	0	0
Whale Tail	SMT13	65.408332	-96.693251	25-Jul	18:19	26-Jul	11:51	17.53	0.4	cobble	0	0
Whale Tail	SMT1	65.385682	-96.693709	26-Jul	9:04	27-Jul	10:15	25.18	0.5	boulder	0	0
Whale Tail	SMT2	65.385370	-96.698520	26-Jul	9:10	27-Jul	10:25	25.25	0.7	boulder	0	0
Whale Tail	SMT3	65.386642	-96.698668	26-Jul	9:14	27-Jul	10:43	25.48	0.7	boulder	0	0
Whale Tail	SMT4	65.388648	-96.696584	26-Jul	10:53	27-Jul	10:47	23.90	0.7	boulder	0	0
Whale Tail	SMT5	65.399344	-96.683697	26-Jul	11:20	27-Jul	9:30	22.17	0.7	cobble	0	0
Whale Tail	SMT6	65.394644	-96.677961	26-Jul	11:07	27-Jul	9:41	22.57	0.7	boulder	0	0
Whale Tail	SMT7	65.388146	-96.687963	26-Jul	10:59	27-Jul	9:48	22.82	0.7	cobble/boulder	0	0
Whale Tail	SMT8	65.382286	-96.688790	26-Jul	8:17	27-Jul	9:54	25.62	1.7	boulder/cobble	0	0
Whale Tail	SMT9	65.391694	-96.689627	26-Jul	10:44	27-Jul	10:51	24.12	0.7	cobble/boulder	0	0
Whale Tail	SMT10	65.397849	-96.693197	26-Jul	11:27	27-Jul	10:59	23.53	0.8	sand	0	0

Waterbody	Location ID	Latitude	Longitude	Date Set (2015)	Time Set	Date Lifted (2015)	Time lifted	Soak Time (hours)	Depth	Substrate	Slimy Sculpin	Ninespine Stickleback
Whale Tail	SMT11	65.401774	-96.699048	26-Jul	11:37	27-Jul	11:04	23.45	1.4	boulder	0	0
Whale Tail	SMT12	65.404388	-96.706044	26-Jul	11:45	27-Jul	11:13	23.47	1.5	boulder	0	0
Whale Tail	SMT13	65.408332	-96.693251	26-Jul	11:51	27-Jul	11:24	23.55	0.4	cobble	0	0
Mammoth	SMT14	65.399497	-96.748329	28-Jul	8:42	29-Jul	9:00	24.30	1	boulder	0	0
Mammoth	SMT15	65.399013	-96.743882	28-Jul	8:51	29-Jul	10:02	25.18	1	boulder	0	0
Mammoth	SMT16	65.401738	-96.735509	28-Jul	9:02	29-Jul	9:59	24.95	1.5	boulder	0	0
Mammoth	SMT17	65.402729	-96.726339	28-Jul	9:06	29-Jul	9:54	24.80	1	boulder	0	1
Mammoth	SMT18	65.399393	-96.723136	28-Jul	9:15	29-Jul	9:51	24.60	0.5	boulder/cobble	0	0
Mammoth	SMT19	65.398389	-96.734949	28-Jul	9:35	29-Jul	9:43	24.13	3.7	boulder	0	0
Mammoth	SMT20	65.396123	-96.745191	28-Jul	9:41	29-Jul	9:07	23.43	1.5	na	0	0
Mammoth	SMT21	65.393214	-96.750599	28-Jul	9:46	29-Jul	8:54	23.13	1	boulder	0	0
Mammoth	SMT22	65.388874	-96.753499	28-Jul	9:51	29-Jul	8:03	22.20	1	cobble/boulder	0	0
Mammoth	SMT23	65.392583	-96.760847	28-Jul	9:55	29-Jul	8:08	22.22	1	bedrock/cobble	0	0
Mammoth	SMT24	65.396511	-96.765716	28-Jul	15:36	29-Jul	8:33	16.95	1	na	0	0
Mammoth	SMT25	65.398159	-96.754967	28-Jul	15:40	29-Jul	8:43	17.05	1	boulder/cobble	0	0

Table A 7. Fine-mesh hoop net set locations, dates and times of sets and lifts, soak times, orientation and catches.

Waterbody	location ID	Latitude	Longitude	Date Set (2015)	Time Set	Date Lifted (2015)	Time lifted	Soak Time (hours)	Opening facing	Slimy Sculpin	Round Whitefish
Whale Tail	FH1	65.397921	-96.693629	18-Aug	16:00	19-Aug	14:00	22.00	toward shore	0	1
	FH2	65.408464	-96.697416	18-Aug	17:00	19-Aug	14:30	21.50	toward shore	1	1

Table A 8. Large minnow trap set locations, dates and times of sets and lifts, soak times, orientation and catches.

Watercourse code	Location ID	Latitude	Longitude	Date set (2015)	Time set	Date lifted (2015)	Time lifted	Soak time (hours)	Opening facing	Slimy Sculpin	Juvenile Round Whitefish
A46-A17	MT4	65.4105	-96.6955	27-Jun	15:48	28-Jun	12:32	20.73	downstream	0	0
A46-A17	MT4	65.4105	-96.6955	28-Jun	12:32	29-Jun	11:21	22.82	downstream	0	0
A46-A17	MT4	65.4105	-96.6955	29-Jun	11:21	03-Jul	14:00	98.65	downstream	0	0
A46-A17	MT4	65.4105	-96.6955	03-Jul	14:00	06-Jul	14:35	72.58	downstream	0	0
A46-A17	MT4	65.4105	-96.6955	06-Jul	14:35	07-Jul	16:10	25.58	downstream	0	0
A46-A17	MT4	65.4105	-96.6955	07-Jul	16:10	08-Jul	15:50	23.67	downstream	0	0
A46-A17	MT4	65.4105	-96.6955	08-Jul	15:50	09-Jul	11:20	19.50	downstream	0	0
A46-A17	MT4	65.4105	-96.6955	09-Jul	11:20	11-Jul	8:30	45.17	downstream	2	0
A46-A17	MT4	65.4105	-96.6955	11-Jul	8:30	12-Jul	13:20	28.83	downstream	1	0
A46-A17	MT4	65.4105	-96.6955	12-Jul	13:20	13-Jul	8:21	19.02	downstream	0	0
A50-A17	MT5	65.4104	-96.6898	28-Jun	13:25	29-Jun	11:30	22.08	downstream	0	0
A50-A17	MT5	65.4104	-96.6898	29-Jun	11:30	03-Jul	13:15	97.75	downstream	0	0
A50-A17	MT5	65.4104	-96.6898	03-Jul	13:15	06-Jul	14:20	73.08	downstream	0	0
A50-A17	MT5	65.4104	-96.6898	06-Jul	14:20	07-Jul	16:00	25.67	downstream	1	0
A50-A17	MT5	65.4104	-96.6898	07-Jul	16:00	08-Jul	15:50	23.83	downstream	0	0
A50-A17	MT5	65.4104	-96.6898	08-Jul	15:50	09-Jul	11:08	19.30	downstream	0	0
A50-A17	MT5	65.4104	-96.6898	09-Jul	11:08	11-Jul	8:50	45.70	downstream	0	0
A50-A17	MT5	65.4104	-96.6898	11-Jul	8:50	12-Jul	13:10	28.33	downstream	0	0
A50-A17	MT5	65.4104	-96.6898	12-Jul	13:10	13-Jul	8:10	19.00	downstream	0	0
A53-A17	MT3	65.4016	-96.6838	27-Jun	10:43	03-Jul	12:50	146.12	downstream	1	0
A53-A17	MT3	65.4016	-96.6838	03-Jul	12:50	06-Jul	13:50	73.00	downstream	1	0
A53-A17	MT3	65.4016	-96.6838	06-Jul	13:50	07-Jul	15:55	26.08	downstream	0	0

Watercourse code	Location ID	Latitude	Longitude	Date set (2015)	Time set	Date lifted (2015)	Time lifted	Soak time (hours)	Opening facing	Slimy Sculpin	Juvenile Round Whitefish
A53-A17	MT3	65.4016	-96.6838	07-Jul	15:55	08-Jul	11:35	19.67	downstream	0	0
A53-A17	MT3	65.4016	-96.6838	08-Jul	11:35	11-Jul	10:00	70.42	downstream	0	0
A53-A17	MT3	65.4016	-96.6838	11-Jul	10:00	13-Jul	7:30	45.50	downstream	0	0
A55-A17	MT9	65.3946	-96.6775	03-Jul	12:00	07-Jul	15:50	99.83	downstream	0	0
A55-A17	MT9	65.3946	-96.6775	07-Jul	15:50	08-Jul	14:50	23.00	downstream	0	0
A55-A17	MT9	65.3946	-96.6775	08-Jul	14:50	09-Jul	16:15	25.42	downstream	0	0
A55-A17	MT9	65.3946	-96.6775	09-Jul	16:15	12-Jul	11:00	66.75	downstream	0	0
A55-A17	MT9	65.3946	-96.6775	12-Jul	11:00	13-Jul	12:40	25.67	downstream	0	0
A59-A17	MT2	65.3888	-96.6832	27-Jun	9:00	28-Jun	13:55	28.92	downstream	0	0
A59-A17	MT2	65.3888	-96.6832	28-Jun	13:55	03-Jul	9:30	115.58	downstream	1	0
A59-A17	MT2	65.3888	-96.6832	03-Jul	9:30	06-Jul	9:10	71.67	downstream	0	0
A59-A17	MT2	65.3888	-96.6832	06-Jul	9:10	08-Jul	14:35	53.42	downstream	0	0
A59-A17	MT2	65.3888	-96.6832	08-Jul	14:35	09-Jul	15:10	24.58	downstream	0	0
A59-A17	MT2	65.3888	-96.6832	09-Jul	15:10	12-Jul	10:02	66.87	downstream	0	0
A59-A17	MT2	65.3888	-96.6832	12-Jul	10:02	13-Jul	12:15	26.22	downstream	0	0
A59-A17	MT6	65.3890	-96.6835	28-Jun	14:00	03-Jul	9:20	115.33	downstream	0	0
A59-A17	MT6	65.3890	-96.6835	03-Jul	9:20	06-Jul	9:10	71.83	downstream	2	0
A59-A17	MT6	65.3890	-96.6835	06-Jul	9:10	07-Jul	15:45	30.58	downstream	0	0
A59-A17	MT6	65.3890	-96.6835	07-Jul	15:45	08-Jul	14:35	22.83	downstream	0	0
A59-A17	MT6	65.3890	-96.6835	08-Jul	14:35	09-Jul	15:10	24.58	downstream	0	0
A59-A17	MT6	65.3890	-96.6835	09-Jul	15:10	12-Jul	10:00	66.83	downstream	0	0
A59-A17	MT6	65.3890	-96.6835	12-Jul	10:00	13-Jul	12:15	26.25	downstream	0	0
A63-A18	MT7	65.3848	-96.7127	05-Jul	15:12	06-Jul	15:50	24.63	upstream	0	0
A63-A18	MT7	65.3848	-96.7127	06-Jul	15:50	07-Jul	13:14	21.40	upstream	0	0

Watercourse code	Location ID	Latitude	Longitude	Date set (2015)	Time set	Date lifted (2015)	Time lifted	Soak time (hours)	Opening facing	Slimy Sculpin	Juvenile Round Whitefish
A63-A18	MT7	65.3848	-96.7127	07-Jul	13:14	08-Jul	15:00	25.77	upstream	0	0
A63-A18	MT7	65.3848	-96.7127	08-Jul	15:00	09-Jul	15:00	24.00	upstream	0	0
A63-A18	MT7	65.3848	-96.7127	09-Jul	15:00	13-Jul	12:00	93.00	upstream	0	0
A63-A18	MT8	65.3848	-96.7127	05-Jul	15:12	06-Jul	15:50	24.63	downstream	0	0
A63-A18	MT8	65.3848	-96.7127	06-Jul	15:50	07-Jul	13:14	21.40	downstream	0	1
A63-A18	MT8	65.3848	-96.7127	07-Jul	13:14	08-Jul	15:00	25.77	downstream	0	0
A63-A18	MT8	65.3848	-96.7127	08-Jul	15:00	09-Jul	15:00	24.00	downstream	0	0
A63-A18	MT8	65.3848	-96.7127	09-Jul	15:00	13-Jul	12:00	93.00	downstream	0	0
AP23-A17	MT1	65.3786	-96.6862	26-Jun	13:54	03-Jul	10:40	164.77	downstream	0	0



Table A 9. Stream electrofishing locations, dates, effort, and catches. All Arctic Char, Lake Trout, Round Whitefish, and Burbot were juveniles. Juvenile salmonids were either Arctic Char or Lake Trout that were released and could not be identified to species with certainty. Refer to Figure 5-3 and Figure 5-4 for June sampling locations, Figure 5-5 and Figure 5-6 for July sampling locations, and Figure 5-7, Figure 5-8 and Figure 5-9 for August sampling locations.

Watercourse	Location ID	Date (2015)	Start latitude	Start longitude	Voltage	Frequency	Electroseconds	Distance (m)	Slimy Sculpin	Arctic Char	Lake Trout	Round Whitefish	juvenile salmonid	Ninespine Stickleback	Burbot
A0-A48	EF-S1	01-Aug	65.415765	-96.686928	950	250	196	10						2	
A113-A47	EF-S2	01-Aug	65.417182	-96.690260	950	250	68	10						1	
A16-A15	EF-S3	25-Aug	65.392606	-96.770026	950	250	690	43	5		1			2	
A17-A16	EF-S4	25-Aug	65.400991	-96.720011	950	250	950	240	4		1				
A18-A17	EF-S32	26-Jun	65.384374	-96.700225	950	250	878	100	1						
A18-A17	EF-S5	05-Jul	65.383288	-96.703374	950	250	1648	112	5						
A18-A17	EF-S6	30-Aug	65.384323	-96.700957	950	250	210	30			1			6	
A19-A18	EF-S7	09-Jul	65.378628	-96.714845	950	250	423	32							
A46-A17	EF-S8	28-Jun	65.410496	-96.695450	950	250	579	201	8	1				11	
A46-A17	EF-S9	09-Jul	65.410496	-96.695450	950	250	393	16	8	1				153	
A46-A17	EF-S10	09-Jul	65.410634	-96.695442	950	250	532	132							
A46-A17	EF-S11	12-Jul	65.410496	-96.695450	950	250	85	<10 m						100	
A46-A17	EF-S12	30-Aug	65.410477	-96.695459	550	130	470	36							
A47-A46	EF-S13	09-Jul	65.412515	-96.693319	950	250	136	17	1						
A50-A17	EF-S14	28-Jun	65.410174	-96.690529	950	250	265	51						5	
A50-A17	EF-S15	09-Jul	65.410174	-96.690529	950	250	1204	163	9	2	1			56	
A50-A17	EF-S16	30-Aug	65.410162	-96.690570	550	130	180	52		1				2	1
A53-A17	EF-S17	20-Jun	65.401450	-96.683688	450	60	1664	571						7	
A53-A17	EF-S18	08-Jul	65.401450	-96.683688	950	250	2142	182	77	5				78	
A53-A17	EF-S19	30-Aug	65.401432	-96.683701	950	250	518	359	26		4				
A55-A17	EF-S20	21-Jun	65.394604	-96.677482	950	250	996	166						6	
A55-A17	EF-S21	06-Jul	65.394604	-96.677482	950	250	3330	167	50	1			1	20	
A55-A17	EF-S22	30-Aug	65.394722	-96.677244	950	250	483	46	1			1		17	
A56-A55	EF-S23	08-Jul	65.397864	-96.666318	950	250	634	60							
A59-A17	EF-S24	27-Jun	65.388830	-96.683468	950	250	730	126	6	1					
A59-A17	EF-S25	09-Jul	65.388829	-96.683167	950	250	1444	97	21					2	
A59-A17	EF-S26	30-Aug	65.388820	-96.683208	950	250	535	181	7	1					
A62-A17	EF-S27	07-Jul	65.388363	-96.699974	950	250	1025	107						1	
A63-A18	EF-S28	05-Jul	65.384819	-96.712699	950	250	848	81	3						
A63-A18	EF-S29	07-Jul	65.384819	-96.712699	950	250	793	81	3						
A-P21-A52	EF-S30	01-Aug	65.410581	-96.675165	950	250	78	5							
A-P23-A17	EF-S31	26-Jun	65.378590	-96.686449	950	250	582	95	2						

## **APPENDIX B – WATERCOURSE PHOTOGRAPHS**



Watercourse A0-A48. Downstream view. August 1, 2015.



Watercourse A16-A15. Aerial view of outlet of Mammoth Lake. June 19, 2015. Flow is from left to right.